Marion County
Rural Transportation System Plan

2005 Update

We have recently completed the 2005 Update of the Marion County Rural Transportation System Plan. This plan was approved by the Marion County Board of Commissioners on December 21st, 2005 following a formal adoption hearing.

The plan covers rural (outside Urban Growth Boundaries) areas of Marion County. For issues with an Urban Growth Boundary, see the appropriate city plan.

The links below access the chapters and appendices of the plan. To help you know what you're looking at:

Table of Contents

Chapter 1 – Executive Summary – Is a quick one-page summary of the Transportation System Plan (TSP) and the major issues the County will face in the next 20 years.

Chapter 2 – Plan Overview – Is a fuller (13-page) summary of each chapter of the plan, including projects proposed and major transportation issues anticipated over the next 20 years.

Chapter 3 – Background and Existing Issues – Includes summaries of issues relevant to Marion County that are listed in plans of cities, adjacent counties, or governing agencies.

Chapter 4 – Goals and Objectives – Describes the goals, objectives, and thought processes that are used in our decision-making.

Chapter 5 – Facility Inventory and Conditions – Inventories the roads, rails, public transportation, waterways, pipelines, and bicycle and pedestrian transportation systems within Marion County. Included in the inventory are maps, operating conditions, traffic flow issues, safety issues, Functional Classification, shoulder widths, sidewalks, and many other characteristics of our transportation systems.

Chapter 6 – Future Traffic Volume Projections – Includes our estimates of the amount of traffic that will be driving on the major roads of Marion County in the year 2025.

Chapter 7 – Development and Evaluation of 20-Year Strategies – Describes some components of the process used to decide which needs to focus on.

Chapter 8 – Roadway System Needs and Recommended Improvements – Lists the existing and future needs of the Marion County rural roadway system and the projects recommended to address those needs.

Chapter 9 – Recommended Non-Roadway Improvements – Contains recommendations for trails, public transportation, air

travel, freight and passenger rail, boats, alternatives to driving, and other off-roadway improvements.

Chapter 10 – Recommended Policies – This includes the policies that have been implemented through this plan to preserve and protect mobility, safety, and the transportation system of Marion County

Chapter 11 – Financing Plan – Describes current and anticipated future revenue, the projects that can be funded with this anticipated revenue, and potential other sources of revenue.

Chapter 12 – Subarea Plans – Provides more detailed plans for specific areas (the Brooks interchange area, the Aurora/Donald interchange area, and Cordon Road between State Street and Auburn Road) for which more detailed planning is appropriate.

Chapter 13 – Long Term Transportation Issues and Strategies – Describes some of the transportation issues and directions that are likely to affect the transportation system of Marion County beyond the 20-year timeframe of this plan.

Chapter 14 – Transportation Planning Rule Compliance – Lists some of the requirements of the Transportation Planning Rule (OAR 660-012) and how those requirements are addressed by this TSP.

Also included are the following Appendices:

Appendix A – Summary of Transportation Issues
Appendix B – Roadway System Inventory
Appendix C – Bridge Inventory
Appendix D – Sidewalk Inventory
Appendix E – Power and Telephone Company Areas
Appendix F – Arndt Road / Oregon 551 Access Management Plan
Appendix G – Alternatives Analysis for Projects

Chapters 5, 6, 7, 9, 11,12, and 13 do include color maps. If you would like paper copies of these maps or have trouble reading them online, contact Niels Vaslev at our office: (503) 588-5036 or e-mail **nvaslev@co.marion.or.us**.

If you have any questions about this plan or its development, please contact Mike McCarthy at our office: (503) 588-5036 or by e-mail at **mmccarthy@co.marion.or.us**

This link to a Powerpoint **Slide Show** may help you better understand the plan

The plan is intended to be updated regularly. If you have any comments, issues, or recommendations you would like to see in the next update, please contact Karen Odenthal at our office: (503) 588-5036 or by e-mail at **kodenthal@co.marion.or.us**

Marion County
Rural Transportation System Plan 2005 Update

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E-mail comments or suggestions to WebMaster@co.marion.or.us

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CHAPTER 1: EXECUTIVE SUMMARY

The Marion County Rural Transportation System Plan (RTSP) provides the framework for developing an efficient, well-balanced, and cost-effective transportation system for the next 20 years. The plan addresses the Transportation Planning Rule (TPR) requiring the County to develop and adopt a 20-year transportation plan. The area covered in the RTSP includes all rural County transportation facilities outside the urban growth boundaries of the 20 cities within Marion County. Transportation issues located within urban areas are addressed in individual city plans.

The 2000 Census listed the population of Marion County as 284,834 people. In 2003, it was estimated at 295,900. By the year 2020, the State Office of Economic Analysis projects the population of Marion County to be 359,581, which represents a 26% increase (or a 1.2% annual growth rate) over the 20-year period. This population growth will likely lead to increased traffic volumes and intensify the need to maintain an efficient transportation system. To accomplish this the county will concentrate improvements along key corridors throughout the County. These corridors facilitate the movement of goods and traffic within the County ('intra-county') and to key locations outside the County ('inter-County').

Over the next 20 years, the County will continue to keep maintenance and preservation of the existing roadway system its top priority in terms of resource allocation. Approximately $11.3 million per year will go towards operations, maintenance, and pavement preservation. Based on existing revenue sources, it is anticipated that only $850,000 per year will be available for rural capital improvements. Over a 20-year time span, this amounts to a total of $17 million. Unfortunately, this represents only a small fraction of the amount identified to address our rural needs, which would exceed $129 million (not including an additional $100 million in urban needs). Therefore, the County must select only its highest priority improvements for funding over the next 20 years. Table 2-1 provides a list of rural improvements that the County intends to pursue with the $17 million. The plan presented makes the best possible use of available resources, while balancing projects that address mobility, safety, and roadway preservation.

The transportation picture will look different 20 years from now than it does today. With forecast growth in population, economic activity, and travel demand, several key roadways will be facing capacity issues. Safety issues and needs will continue to increase as roadway usage increases. While a good transportation network, with good connections to the national transportation network, is critical to the economy of the County, we do not anticipate adequate funding available to meet these needs. While available funds will be used as efficiently as possible to maintain and improve the road system, drivers are likely to face longer delays and more congested roads. With congestion and gas prices likely to increase and energy reserves likely to decrease, other modes of transportation (such as rail, transit, carpooling, cycling, and walking) will increase in importance, as will efforts to give people a better option than driving by themselves. Land use patterns will also play a key role, as they tend to shape driving habits.

The investment decisions that we make now, and the collective traveling habits that we as a community develop, will be a significant factor shaping our transportation experience in the future. The County will do its best to maintain a good transportation infrastructure and provide transportation options, but it is the people, through the responsibility of the transportation choices they make, that will have the largest role in shaping the future transportation system of Marion County.

CHAPTER 2: PLAN OVERVIEW

2.1 EXECUTIVE SUMMARY

The first chapter of the plan provides an executive summary. The following is an expanded overview of the recommendations made in the plan.

2.2 INTRODUCTION

The Marion County Rural Transportation System Plan (RTSP) was developed to provide the framework for developing an efficient, well-balanced, and cost-effective transportation system over the next 20 years.

The RTSP covers rural County transportation facilities outside urban growth boundaries of incorporated cities, and includes unincorporated rural communities that function as small cities, such as Marion and Brooks. It covers a wide spectrum of facilities, from local gravel roads to freeway interchanges, as well as rail, air, water, and pipeline transportation, and a wide spectrum of users, from local pedestrians to multi-national freight carriers.

Transportation issues located within Urban Growth Boundaries are addressed in individual city plans. The County participates in the planning process with individual cities to ensure that their plans and the County RTSP are consistent with one another and to provide a smooth transition between urban and rural facilities. This is especially important where County roads run inside city centers, resulting in two conflicting functions: on one hand, the roads function as main corridors to facilitate regional movement of trucks and autos, but on the other hand the roads also function as "main streets" for the cities where reduced vehicle speeds, on-street parking, and bicycle and pedestrian traffic provide the small town atmosphere desired by many urban communities.

The RTSP includes the following topics (each is a separate chapter, and will be described below):

- Review of existing issues
- Definition of goals and objectives
- Inventory of transportation facilities and assessment of existing conditions
- Forecast of future population and traffic volumes
- Development and evaluation of strategies
- Existing and future roadway needs and 20-year recommended roadway improvements (including bicycle and pedestrian improvements and State Highway improvements).
- 20-year recommended non-roadway improvements (including trails, public transportation, and improvements for air, rail, water, or pipeline transportation)
- Policies implemented to maximize the efficiency of the transportation system and preserve and protect it
- Transportation financing plan (what projects can be completed with anticipated funding, and how much funding would be necessary to address all the needs)
- Sub-Area plans

- Long term issues and strategies
- Compliance with the Transportation Planning Rule

The RTSP is a critical first step in determining our future transportation system, but should be viewed as only one of many planning tools that will help shape the future of Marion County.

The RTSP addresses the requirements under the Transportation Planning Rule (TPR) to develop and adopt a 20-year transportation plan. It also provides authorization for the County to pursue the recommended 20-year rural transportation improvements but does not authorize zone changes, land use exceptions, or goal exceptions for those improvements. If a transportation improvement does not meet the requirements of the TPR, the County must obtain the necessary permits and goal exceptions to pursue its implementation.

2.3 REVIEW OF EXISTING ISSUES

A review of existing issues is provided in Chapter 3 of the plan. The County began identifying potential issues by reviewing the transportation system plans and comprehensive land use plans of the cities within Marion County, as well as the plans of adjacent counties and the State of Oregon. A review of these plans helped to ensure that the County RTSP is consistent with the goals of other local cities and agencies. A summary of issues identified in these plans follows:

City Plans

- The following cities are anticipating significant growth: Aumsville, Aurora, Donald, Gervais, Hubbard, Jefferson, Keizer, Mount Angel, Salem, Silverton, Stayton, Sublimity, Turner, and Woodburn.
- Many cities are facing a major transportation-funding shortfall.
- Many cities are proposing significant projects (approximately $100 million worth) on County Roads in their cities and urban areas. Existing resources would only be enough to accomplish a few of this lengthy list of projects.
- Many cities (including Aumsville, Aurora, Gervais, Hubbard, Jefferson, Mill City, Mount Angel, Salem, Silverton, Stayton, Sublimity, Turner, and Woodburn) list a goal to develop more of a ‘town center’ feel or ‘downtown renewal’ and inviting pedestrian-friendly atmosphere and character in their city centers.
- Many cities (including Aurora, Gates, Hubbard, Jefferson, Keizer, Mill City, Mount Angel, Salem, Silverton, Stayton, Sublimity, Turner, and Woodburn) are observing growing negative effects of traffic congestion on main routes through town.
- Some cities (including Stayton, Sublimity, and Turner) are proposing bypass routes. Others seek investigation of alternate routes
- Most cities would like increased intercity transit service.
- Many cities promote pedestrian/bicycle travel and strategies to reduce peak hour traffic.
- There seems to be an increasing desire for trails, particularly in the North Santiam Canyon, the Salem-Keizer area, and in the Woodburn-Hubbard-Aurora area.
- Many cities promote access management as an effective way to preserve their roads.
- Most cities with rail lines appreciate them and recommend continued and improved service.

- Promoting tourism is a common theme.
- Opportunities abound for regional cooperation and cross-promotion.

State, Adjacent County, and Regional Plans

- Marion County's plan is consistent with all other agency plans.
- Agencies are increasingly recognizing the importance of freight mobility and efficiency.
- The fastest-growing areas tend to be near or between the major population centers – the Portland metro area and Salem/Keizer.
- For adjacent counties and ODOT, the roads are getting more and more crowded.
- The need for traffic flow and safety improvement projects is increasing quickly, but existing funding levels will not be able to keep up with these needs.
- ODOT has adopted stricter access management policies and interchange spacing policies.
- ODOT has adopted higher standards for road performance, despite its apparent lack of ability to meet them with current resource levels.
- Freight rail traffic is expected to increase significantly, and will also necessitate significant funding increases to maintain service levels.
- Increased transit service is promoted.
- Bicycle and pedestrian travel is promoted.
- Reducing peak hour traffic volumes is promoted as an alternative to construction projects.
- Barge traffic on the Willamette remains an option, but not likely a cost-effective one.
- Air travel is promoted, but no major plans for new or expanded airports in Marion County.

A draft of this plan was made available to the public via public meetings, on the internet, and at our offices. Notices were mailed to thousands of residents and interested parties. Open house-style meetings were held with the general public and staff from other agencies. Many helpful comments were received, and changes were incorporated into the plan where appropriate.

Urban transportation issues were not included in this plan, however Marion County Public Works Department is in the process of collecting, reviewing, and prioritizing those issues raised by cities in the County. The County is also assisting smaller cities in identifying transportation issues and developing potential improvements to address them.

2.4 GOALS AND OBJECTIVES

A mission statement and a set of goals and objectives were carried forward from the 1998 TSP with minor modifications. An overview of the mission statement and goals are provided below. The objectives are included in Section 4 of the plan.

Mission Statement: *Develop a balanced, multi-modal transportation system to accommodate planned growth, facilitate economic development, and maintain a high standard of livability.*

Goals:

1) Improve Transportation System Safety
2) Provide an Accessible, Efficient, and Practical Transportation System
3) Provide Sufficient Transportation Capacity
4) Recognize Fiscal Reality
5) Work in Partnership with Communities to Address Community Needs and Values
6) Promote Alternative Modes of Transportation
7) Consider Land Use and Transportation Relationships
8) Address Transportation Policy Issues and Intergovernmental Coordination
9) Provide a Useful Plan Document

2.5 FACILITY INVENTORY AND CONDITIONS

An inventory of County transportation facilities was compiled as part of the plan. In addition, the physical and operational conditions on these facilities were documented and are described in Chapter 5. These facilities include: roadways, bicycle and pedestrian facilities, traffic control devices, public transportation providers, rail crossings, airports, ferries, pipelines, and utility and communication lines.

The most-widely used transportation facility is the County roadway network. There are approximately 990 miles of rural roads maintained by the County consisting of 793 miles of paved roads and 197 miles of gravel roads. Based on 2002 data, of the 793 miles of paved roads, 107 miles are in "very good" pavement condition, 392 miles (190 km) are in "good" condition, and 199 miles are in fair condition. This leaves 95 miles in the "poor", or "very poor" condition. This represents a considerable decrease in the condition of County roads, as they are showing the effects of a lack of sufficient funding for maintenance over the past few years.

The inventory of existing conditions revealed that 4.6 miles of roadway segments and eight individual intersections had levels-of-service (LOS) D or worse, which is the level-of-service at which capacity issues typically arise. An additional 20.6 miles of County Roads and 14 rural intersections are approaching capacity issues. As the region grows, congestion is becoming more and more prevalent.

In addition, eight intersections on County Roads and fifteen intersections involving State Highways had ten or more accidents over a three-year period from January 2001 through December 2003. Safety on rural County Roads has shown a slight improvement, and may be contributed to some of the policies and transportation projects that were identified through the original 1998 RTSP.

The County has also updated its functional classification system as part of this RTSP update. The most notable changes are the upgrade of Silverton Road and the Ehlen / Yergen / McKay / Oregon 219 corridor (from I-5 to Yamhill County) to Principal Arterial classification.

2.6 POPULATION AND FUTURE TRAFFIC PROJECTIONS

The 2000 Census reported the population of Marion County as 284,834 people (up from the estimate of 258,000 in 1995). For 2003, Marion County's population was estimated at 295,900. By the year 2020, the State Office of Economic Analysis projects the population of Marion County to be 359,581. This

represents a 26% increase (or a 1.2% annual growth rate) over a 20-year period. Some forecasters are predicting more rapid population growth. The growing population will lead to an increase in traffic volumes on County Roads and State Highways. Most of the roadways in Marion County will be able to handle the increase and continue to function at an acceptable level. However, on several key County Roads and State Highways, the forecast traffic volume demand is well beyond the roadway's capacity. While in the past the County has been relatively free of capacity problems in rural areas, traffic volumes are growing to the point where drivers on these key roads will see significant capacity problems. Additional funding for road construction and/or significant changes in driving patterns will be necessary to address the anticipated traffic volume and the motoring public's demand to reduce the capacity problems generated.

2.7 DEVELOPMENT AND EVALUATION OF STRATEGIES

In consideration of the existing and future needs, nine strategies were developed and evaluated by the County. These strategies are described in Chapter 7 of the plan and include:

1. No Build
2. Build it All at Any Cost
3. Inter-County Mobility
4. Farm-to-Market
5. Leave the Car at Home
6. Build/Do as Much as Possible
7. Intra-County Mobility
8. Perimeter Roads / New Development Patterns
9. Combination of Inter- and Intra-County Mobility

The strategy that was determined to be the most appropriate for the County, and best addressed the goals and objectives of the plan, was the Intra-/Inter-County Mobility Strategy (#9), which is a combination of the Intra-County strategy (#7) and the Inter-County strategy (#3). It was determined by the planning team that the Intra-County strategy should be pursued, but not at the exclusion of key Inter-County corridors. This strategy focuses road improvements on the major roadways (typically Arterials and Major Collectors) serving traffic traveling both within the County and into or out of the County.

2.8 ROADWAY SYSTEM NEEDS AND RECOMMENDED PROJECTS

The recommended improvements address various modes of transportation and include specific projects and policies. Although the County does not expect to obtain sufficient funding to complete the entire list of recommended improvements, the County still believes these improvements are needed within the next 20 years to keep the transportation system functioning well. Chapter 8 of the plan describes the 20-year recommended roadway improvements.

The County identified existing and future roadway needs related to bridges, drainage, intersections, roadway capacity, pavement width, safety, and railroad crossings. Existing needs are defined as deficiencies that, under existing physical or operating conditions, warrant improvement. These needs are

described in Section 8.2 of the plan.

Safety

There are many potential safety improvements that could be made on Marion County Roads. Some of these projects would yield substantial safety benefit, while others are less likely to be effective. Due to limited funding, we will only be able to make the most effective safety improvements. Table 8-5 lists 34 recommended safety projects and 22 additional identified needs where a potential project may be able to yield safety benefit. These recommended projects include turn lanes, traffic control, visibility improvements, roadway realignment, and other potential safety improvements.

Traffic Control and Modernization

Tables 8-6 and 8-17 list 24 intersections in need of intersection traffic control improvements, such as signals or turn lanes, to enhance the capacity of the intersection, or modernization projects to improve traffic flow and eliminate unusual configurations. Projects are recommended at 11 of these locations, with the remaining 13 listed as identified needs.

Pavement Widening for Modernization

Table 8-7 lists 9 roadway segments where pavement widening (lane and/or shoulder widening) is recommended to better handle the traffic using it. An additional eight segments are listed for which widening is identified as a potential need. Some locations consist of narrow pavement and sharp curves that are unsuitable for the volume and speed of traffic. Other locations involve narrow roads with regular truck traffic that present uncomfortable conditions to both automobile and truck drivers.

Bridges

Five bridges have sufficiency ratings of 50 or lower and need structural rehabilitation or replacement (Table 8-8); projects are recommended and funded to replace two of these bridges and repair a third, and an additional replacement is recommended. Another ten bridges have other deficiencies such as poor alignment, low weight capacity, or poor seismic resistance that also warrant the need for rehabilitation or replacement (Table 8-9); projects are recommended to replace nine of these bridges (one is funded). In addition, four railroad under-crossings present height restrictions on roadways (Table 8-10), and projects are recommended to replace two of these bridges.

Railroad Crossings

Table 8-11 lists projects recommended to improve traffic control and safety measures at 17 railroad grade crossings in Marion County. Most of these projects would involve installing crossing gates at locations that are currently uncontrolled or controlled only by stop signs. Another two potential projects are identified that also merit further consideration.

Drainage

Drainage issues were identified at 51 locations where regular flooding results in water over the roadway or where excessive surface water accumulates on the roadway during heavy rains. It would not be cost-effective to address most of these issues due to the high cost and because the problems infrequently impact the road. Table 8-12 lists one recommended project and four additional needs for which solutions may be cost effective.

Future Roadway Capacity

Table 8-16 lists County roadway segments for which additional travel lanes are likely to be necessary within 20 years to handle the volume of traffic anticipated. These future capacity needs include: 1) Cordon Road from the Salem UGB to Silverton Road; 2) Arndt Road from Wilsonville-Hubbard Hwy to Clackamas County; 3) Brooklake Road from River Road to Interstate 5; 4) Silverton Road from the Salem UGB to the Silverton UGB; 5) Cascade Highway between Stayton and Sublimity; and 6) Golf Club Road from Oregon 22 to the Stayton UGB.

Projects Proposed by Cities

Table 8-18 lists five projects proposed by cities in order for the County Road network to better connect with their city road network.

Transportation Demand Management (TDM)

The County will encourage implementation of TDM strategies, such as telecommuting, flexible work hours, and ride-sharing, as an alternative to building new transportation facilities.

State Highway Needs

As part of the RTSP, safety, modernization, capacity, and reconstruction project needs were identified on State Highways. See section 8.6 for specific descriptions of each of these needs. These needs include major interchange reconstruction projects, safety projects, intersection capacity projects, potential new interchanges, and additional travel lanes on several state highway segments in Marion County.

2.9 20-YEAR RECOMMENDED IMPROVEMENTS BEYOND THE ROAD SYSTEM

Chapter 9 outlines recommended transportation improvements other than roadway infrastructure, and include improvements related to off-road bicycle and pedestrian travel, public transit, air travel, water transportation, trains, and pipelines. These modes are also important to the overall transportation system of Marion County.

Trails

Figure 9-1 shows general locations that could potentially become future multi-use trails, and includes support for efforts to develop multi-use trails in the North Santiam Canyon and the Woodburn-Hubbard-Aurora area.

Public Transportation

Figure 9-2 shows recommendations for continued and improved rural intercity transit service. Included in this section are recommendations for improved (express) transit service from Portland, Wilsonville, Woodburn, Silverton, and Stayton to Salem, as well as recommended new service from Salem and Woodburn to Newberg in Yamhill County and from Salem and Jefferson to Albany in Linn County and Corvallis in Benton County.

Air

The County intends to adopt both the Aurora State Airport Master Plan and the Salem Municipal Airport Master Plan. Both plans are currently being updated and will be reviewed by the County to ensure that the plans are compatible with County land use and zoning requirements.

Rail

Freight transportation using railroad lines is expected to continue and increase, and improvements are recommended to make it more efficient. Construction of new rail spurs will be reviewed on an individual basis to ensure that the surrounding communities and environments are not adversely affected. The County will continue to support efforts for developing a cost-effective passenger rail service and possibly a high speed rail line from Eugene to Portland as identified in the Oregon Rail Passenger Policy and Plan.

Water

The County will continue ferry service across the Willamette River via the Buena Vista Ferry and Wheatland Ferry. This will require continued maintenance and rehabilitation of these ferries as necessary . Dredging the Willamette River could bring economic benefits to the region, but it would be quite expensive and the County has no plans to pursue dredging until all the environmental impacts can be addressed, and the dredging found overall to be cost-effective.

Pipeline

The County will continue to support the use of underground pipelines that can minimize the need for surface shipping. Petroleum and natural gas distribution via pipelines is also expected to continue.

2.10 County Transportation Policies

Chapter 10 of the plan describes policies enacted by Marion County in order to preserve and protect the transportation system and provide for the needs of Marion County residents, businesses, and visitors. These include policies in the following areas:

Transportation System Management (TSM)

The County will pursue TSM strategies, such as access management, land-use controls, and traffic control, to maximize the efficiency and safety of the existing transportation system while protecting the significant investment made in the existing roadway infrastructure.

Roadway Maintenance and Preservation

With limited County resources we will continue to keep maintenance and preservation of the existing roadway system as the top priority. Approximately $9.2 million per year will go towards operations and maintenance. In addition, another $2.1 million will go towards pavement management, which includes pavement overlay and chip seal projects. To ensure roadways will receive appropriate maintenance in the future, several policies and a roadway maintenance priority matrix are included in section 10.2.

Transportation Policies

Other policies in the RTSP provide direction for the planning and development of transportation facilities in the County. While many of the policies in the plan are being proposed for the first time, others represent a revision to existing policies from the 1981 Marion County Comprehensive Plan and the 1998 Marion County Rural Transportation System Plan. The transportation policies are listed in Section 10.3 of the plan and are divided into five categories: 1) Transportation system planning policies; 2) Resource allocation policies; 3) Bicycle, pedestrian, and public transportation policies; 4) Air, rail, water, energy, and pipeline transportation policies; 5) Development, land use, and access policies; 6) Right Of Way Policies; and 7) Urban Growth Management Framework Policies (adopted in that document and restated

here).

Future Evaluation of Transportation Issues
These guidelines outline the process for evaluating future transportation issues as they arise.

2.11 FINANCING PLAN

The total cost to address all of the identified rural needs would be about $129 million. (not including needs on County roads within cities, which are estimated to cost at least $100 million.) Funding only the 20-year recommended rural improvements would require about $104 million. Based on existing revenue sources, the County anticipates only $17 million will be available for rural capital improvements over the next 20 years. Due to the projected funding shortfall for completion of all the recommended improvements, the Financing Plan in Section 11 provides a list of improvements that the County expects to be able to fund over the next 20 years. The Financing Plan presents a 20-year financially-constrained plan of transportation projects that totals $17 million. The projects are summarized in Table 2-1. The Financing Plan for the RTSP includes funding for capital improvements, special studies, Transportation Demand Management, Transportation System Management, and other contingencies. It does not include the annual expenditures for maintenance and preservation, pavement management, administration and general engineering, structures rehabilitation, emergency projects, and other annual necessities that are budgeted before the capital improvements allocation.

Table 2-1
20-Year Financially-Constrained Plan

TYPE	LOCATION	DESCRIPTION	ESTIMATE
ZERO TO FIVE YEAR TIME FRAME			
PROJECTS			
Capacity	Arndt Rd / Airport Rd	Construct traffic signal and left turn lanes at intersection	$200,000 Matching funds for OTIA Grant
Capacity	Arndt Rd from Wilsonville-Hubbard Hwy to Airport Rd	Add a second eastbound through lane and paved shoulders	$150,000 Matching funds for OTIA Grant
Safety	Cordon Rd / Pennsylvania Ave	Construct left turn lane on Cordon Rd	$50,000 (Approved for $420,000 HEP funding)
Safety	Cordon Rd / Auburn Rd	Install traffic signal at intersection	$100,000 (Approved for $450,000 STP funding)
Safety	Cordon Rd / Herrin Rd	Construct left turn lane on Cordon Rd	$500,000
Safety	Ehlen Rd / Boones Ferry Rd / Oregon 551	Construct left turn lane on Ehlen Rd	$500,000

TYPE	LOCATION	DESCRIPTION	ESTIMATE
Capacity	Cordon Rd / MacLeay Rd	Construct traffic signal and left turn lanes at intersection	City of Salem Project
Modernization and bike/ped	Marion Rd from Turner UGB to Mill Creek Rd	Strengthen pavement and construct paved shoulders (bikeways) on both sides	Developer Requirement
Bridge and bike/ped	Jefferson-Marion Rd over Union Pacific Railroad	Replace bridge and realign road	OTIA Grant (no match)
Bridge and bike/ped	Mount Angel – Gervais Road over Pudding River	Replace bridge	OTIA Grant (no match)
Bridge	River Rd S (Independence Bridge) over Willamette River	Scour protection	$200,000 Matching funds for HBRR Grant
Bridge	South Abiqua Road over Abiqua Creek	Replace bridge	$200,000 Matching funds for HBRR Grant
Bridge and bike/ped	Marion Rd over Mill Creek (south of Mill Creek Rd)	Replace Bridge	Developer Requirement
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$400,000 likely HBRR matching funds
Capacity	Silverton Rd / Howell Prairie Rd	Construct traffic signal and left turn lanes at intersection	$750,000
Safety	Cordon Rd / Hayesville Drive	Construct left turn lane on Cordon Rd	$300,000
Safety	Brooklake Rd / Wheatland Rd	ITS Safety – Speeding (non-stopping) Vehicle Warning	$100,000
Contingency and Miscellaneous			$800,000
COST TOTAL OF ZERO TO FIVE YEAR TIMEFRAME PROJECTS			**$4,250,000**
TRANSPORTATION PLANNING ACTIVITIES IN ZERO TO FIVE YEAR TIMEFRAME			
Sub-Area Plan	Brooks Community	Brooks Community Transportation Plan	In-House
Corridor Study	Cordon Rd from City of Salem to Hazelgreen Rd	Corridor Study to develop detailed plan (signal locations, turn lanes, future capacity, access management, etc) for Cordon Rd	In-House, Cooperating with Salem
FIVE TO TEN YEAR TIME FRAME			
PROJECTS			

TYPE	LOCATION	DESCRIPTION	ESTIMATE
Safety	Ehlen Rd / Bents Rd	Realign Bents Rd to the west; install signal; could become part of an interchange reconstruction project	$1,100,000 (will include developer funding)
Safety / Railroad	Butteville Rd / Portland & Western Railroad	Safety improvements: Install gates at crossing and possible realignment	$200,000
Capacity / Modernization	River Rd NE / Brooklake Rd	Construct traffic signal and left turn lanes at intersection; some relocation of roads may be necessary	$900,000
Capacity / Modernization	Cordon Rd / Hazelgreen Rd / 55th Ave	Construct traffic signal and left turn lanes at intersection	$900,000
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$400,000 likely HBRR matching funds
Contingency and Miscellaneous			$750,000
COST TOTAL OF FIVE TO TEN YEAR TIMEFRAME PROJECTS			**$4,250,000**
TRANSPORTATION PLANNING ACTIVITIES IN FIVE TO TEN YEAR TIMEFRAME			
Corridor Study	Brooklake Road from River Rd NE to Oregon 99E	Corridor Study to develop detailed plan (signal locations, turn lanes, future capacity, access management, etc) for Brooklake Rd	In-House
Sub-Area Plan	Butteville Community	Butteville Community Transportation Plan	In-House
Special Study	Woodburn area second interchange study	Evaluate the level of need for, potential benefit of, potential cost of, and resulting impacts of a second interchange in the Woodburn Area	In Cooperation with ODOT, Woodburn, and other cities
TEN TO FIFTEEN YEAR TIME FRAME			
PROJECTS			
Safety / Capacity	Cordon Road from State through Center Streets	Widen to two lanes each direction; includes intersection improvements	$3,000,000 (County share or first part of project funding)
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$650,000 likely HBRR matching funds
Contingency and Miscellaneous			$600,000
COST TOTAL OF TEN TO FIFTEEN YEAR TIMEFRAME PROJECTS			**$4,250,000**

TYPE	LOCATION	DESCRIPTION	ESTIMATE
TRANSPORTATION PLANNING ACTIVITIES IN TEN TO FIFTEEN YEAR TIMEFRAME			
Sub-Area Plan	Marion Community	Marion Community Transportation Plan	In-House
Sub-Area Plan	Mehama Community	Mehama Community Transportation Plan	In-House, with ODOT
Corridor Study	Riverside/Sidney/Ankeny Hill Roads from I-5 to Independence	Study potential for corridor improvements	In-House, with Polk County, ODOT, and Cities
FIFTEEN TO TWENTY YEAR TIME FRAME			
PROJECTS			
Safety / Capacity	Cordon Road from State through Center Streets	Widen to two lanes each direction; includes intersection improvements	$1,600,000 (Remainder of project funding; may come from other sources)
Capacity / Safety	Cordon Rd / Swegle Rd	Install traffic signal at intersection	$400,000
Safety / Modernization	River Rd S / Orville Rd / BN Railroad Bridge	Realign road and intersection; reconstruct bridge	$1,400,000 (County share or first part of project funding)
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$450,000 likely HBRR matching funds
Contingency and Miscellaneous			$400,000
COST TOTAL OF FIFTEEN TO TWENTY YEAR TIMEFRAME PROJECTS			**$4,250,000**
TRANSPORTATION PLANNING ACTIVITIES IN FIFTEEN TO TWENTY YEAR TIMEFRAME			
Alternatives Analysis	Salem to Silverton	With capacity problems expected on Silverton Road, analysis of alternatives to increase capacity between Salem and Silverton	In-House
Sub-Area Plan	Monitor Community	Monitor Community Transportation Plan	In-House
Sub-Area Plan	Delaney Interchange Area	Delaney Interchange Area Transportation and Access Plan	In-House with ODOT
Major Regional Study	Possible Bridge over Willamette River between Keizer and Newberg	Study the possibility, potential benefit, and costs and impacts of a possible new bridge over the Willamette River between Keizer and Newberg	Staff, along with other counties, cities, and ODOT
TWENTY YEAR CAPITAL IMPROVEMENT PROGRAM TOTAL			**$17,000,000**

2.12 SUB – AREA PLANS

Chapter 12 includes detailed plans for two areas (around the Brooks Interchange and the Aurora/Donald Interchange) that are not covered by urban plans, but for which a more detailed level of planning is necessary. These plans and policies have been developed to ensure acceptable performance of the transportation system in these key areas. In addition it can help potential developers understand what requirements will be necessary, and address intergovernmental coordination issues. See the chapter for specific plans and policies.

In the future additional sub – area plans are expected to be developed where necessary and will be incorporated into this section during amendments or update of this TSP.

2.13 LONG TERM ISSUES

The County has identified long-term issues and strategies that extend beyond the 20-year time frame. These issues are described in Chapter 13 of the plan. Although the long-term vision is to facilitate intra- and inter-County mobility, several issues still need to be considered to meet the long-range transportation needs of the County. These issues include:

1. Peripheral Routes and Strategic Corridors
2. Passenger Rail Service with Supporting Access Network
3. Transportation Systems Management Strategies
4. Aggressive Transportation Demand Management Tools
5. Additional Connections to Interstate 5 and Highway 22
6. Additional Crossings of the Willamette River
7. Changing Land Use and Transportation Characteristics

These have been identified to promote further discussion on long-term transportation planning in the County. Further evaluation and extensive study will be needed before any of issues can be fully addressed.

2.14 TRANSPORTATION PLANNING RULE (TPR) COMPLIANCE

Chapter 14 of the plan describes how the requirements and recommendations from the TPR are addressed in this plan.

2.15 APPENDICES

The appendices of this plan include more detailed information, such as: Project Prioritization and Issues Identified, Road Inventory, Bridge Inventory, Sidewalk Inventory, Arndt Road / Wilsonville-Hubbard Highway Access Management Plan, and other detailed information.

CHAPTER 3: BACKGROUND AND EXISTING PLANS

This section provides an overview of transportation issues compiled from the transportation plans and studies of other jurisdictions and those already in effect for Marion County, and from extensive public involvement through open houses and Technical Advisory Committee and Citizens Review Committee meetings both during the original 1998 TSP process and the current update. In addition, County staff also contributed in identifying transportation issues as part of the planning process.

3.1 REVIEW OF EXISTING PLANS AND STUDIES

Transportation studies, system plans, and comprehensive land use plans were collected and reviewed to identify pertinent transportation issues and policy statements. A summary of issues from these plans and studies is provided below. Information considered in the development of the initial 1998 Rural Transportation System Plan (RTSP) is included below in plain text. Information added since the development of the original RTSP is shown in *italics*. All information collected has been fully considered in the planning efforts of this update. Some jurisdictions' plans that were included in the 1998 TSP have been superseded by subsequent planning efforts; plans that have been superseded are not included in this update.

The purpose of this section is to provide a summary (for reporting purposes only) of planning efforts that have been conducted that would affect the Marion County rural transportation system. We have attempted to accurately represent these plans, but one should review each jurisdiction plan for the full text. The information presented is for reporting purposes only, and Marion County does not necessarily agree with each aspect of each plan. Marion County's policies regarding the transportation system will be set forth in later chapters.

3.1.1 Summary of Other Agencies' Plans

City Plans

- The following cities are anticipating significant growth: Aumsville, Aurora, Donald, Gervais, Hubbard, Jefferson, Keizer, Mt. Angel, Salem, Silverton, Stayton, Sublimity, Turner, and Woodburn.
- Many cities are facing a major transportation funding shortfall.
- Many cities are proposing many projects (approximately $100 million worth) on County Roads in their cities and urban areas. Existing resources would only be enough to accomplish a few of this lengthy list of projects.
- Many cities (including Aumsville, Aurora, Gervais, Hubbard, Jefferson, Mill City, Mt. Angel, Salem, Silverton, Stayton, Sublimity, Turner, and Woodburn) are seeking to develop more of a 'town center' feel or 'downtown renewal' and inviting pedestrian-friendly atmosphere and character in their city centers.
- Many cities (including Aurora, Gates, Hubbard, Jefferson, Keizer, Mill City, Mt. Angel, Salem, Silverton, Stayton, Sublimity, Turner, and Woodburn) are observing growing negative effects of traffic congestion on main routes through town.
- Some cities (including Stayton, Sublimity, and Turner) are proposing bypass routes. Others seek investigation of alternate routes
- Most cities would like increased intercity transit service.
- Many cities promote pedestrian/bicycle travel and strategies to reduce peak hour traffic.

- There seems to be an increasing desire for trails, particularly in the North Santiam Canyon, the Salem-Keizer area, and in the Woodburn-Hubbard-Aurora area.
- Many cities promote access management as an effective way to preserve their roads.
- Most cities with rail lines appreciate them and recommend continued and improved service.
- Promoting tourism is a common theme, particularly in the North Santiam Canyon
- Opportunities abound for regional cooperation and cross-promotion.

State, Adjacent County, and Regional Plans

- Marion County's plan is consistent with all other agency plans.
- Agencies are increasingly recognizing the importance of freight mobility and efficiency.
- The fastest-growing areas tend to be near or between the major population centers – the Portland metro area and Salem/Keizer.
- For adjacent counties and ODOT, the roads are getting more and more crowded.
- The need for traffic flow and safety improvement projects is increasing quickly, but existing funding levels will not be able to keep up with these needs.
- ODOT has adopted stricter access management policies and interchange spacing policies.
- ODOT has adopted higher standards for road performance, despite its apparent lack of ability to meet them with current resource levels.
- Freight rail traffic is expected to increase significantly, and will also necessitate significant funding increases to maintain service levels.
- Increased transit service is promoted.
- Bicycle and pedestrian travel is promoted.
- Reducing peak hour traffic volumes is promoted as an alternative to construction projects.
- Barge traffic on the Willamette remains an option, but not likely a cost-effective one.
- Air travel is promoted, but no major plans for new or expanded airports in Marion County.

3.1.2a Marion County Comprehensive Plan (1981)

Note: The Transportation Element of this plan has been superseded (in rural areas) by the 1998 Rural Transportation System Plan.

- Encourages zoning for denser developments near major arterials and collectors where mass transit lines can be run most efficiently.
- Encourages bicycle and pedestrian facilities to encourage non-motorized transit.
- Locating public facilities in easily accessible areas so that one trip can serve several purposes.
- Advocates the use of existing right-of-way for new transportation facilities to the extent opening the road is appropriate.
- Encourages review of development of unopened, dedicated public roads for consistency with land use policies. Requires use of adequate roadway development standards when possible.
- Requires owners to dedicate right-of-way necessary to meet County standards as a condition for approval of a partitioning, subdivision, or zoning permit that allows more development to access onto a County road.
- Encourages minimizing the number of access points on collector and arterial roads for efficient operation and safety. Encourages providing primary access to residential development through roads of lower functional classification.
- Encourages access be provided to State and County parks through major collectors and arterials.

- Proposes limited development of new private roadways for areas with 4 or fewer home sites. Requires maintenance agreements for private roadways.
- Recommends locating airports in areas that are safe for air operations and compatible with surrounding uses. Advises the County to review location and use of small airports and private airstrips on an individual basis to ensure that compatibility with land use is demonstrated.
- Adopts "appropriate provisions" to protect public airports from incompatible structures and uses, consistent with FAA guidelines.
- Advises special review requirements be established to ensure that noise sensitive uses are not allowed in close proximity to public airports.
- Calls for minimizing adverse affects of traffic noise on residential areas.
- Encourages underground pipeline development as an alternative to surface shipping.
- Calls for the protection of natural resources, such as valuable soil, timber, water, scenic and cultural resources.

3.1.2b Marion County Urban Growth Management Framework (2002)

- *Provides 2050 population forecasts as a long-range planning tool for cities (not a coordinated, adopted forecast as required by statutes), unincorporated areas, and all of Marion County.*
- *Encourages use of alternative modes of transportation.*
- *"The Marion County TSP will be designed to accommodate the forecast population, housing, and employment identified in this framework, as well as the areas that are planned for urban expansion, in coordination with the communities involved."*
- *"The Marion County TSP will investigate countywide alternative transportation, such as intercity transit, vanpooling, and passenger rail service serving the county and the Willamette Valley region."*
- *Goal: Development of a population distribution pattern in which most persons employed within an urban community live in and participate in the activities and government of that community.*
- *Sets standards for local street connectivity within some cities.*
- *Seeks to enhance intercity transit connections.*
- *Encourages zoning revisions in cities to reduce need for vehicle trips.*
- *Encourages development of traffic calming recommended methods.*
- *Cities over 10,000 and the County will jointly plan for freight movement by both rail and truck in their transportation planning activities.*
- *Supports improving the walking and biking environment in all communities.*
- *Goal: Reduce vehicle miles traveled, emissions infrastructure costs, congestion, and truck traffic on local streets.*

3.1.3 Aumsville Comprehensive Plan (Adopted 1999, Amended 2002)

- *Forecasts a population of 4,127 needing 745 acres within the UGB and 658 new housing units by the year 2015.*
- *Seeks to develop a business center around the city hall area.*
- *Projects acceptable 2015 level of service on county roads and arterials within city limits.*
- *Proposes a new collector from Shaw Hwy to Bishop Rd.*
- *Proposes local streets accessing residential development west of Aumsville Hwy/11th St.*

3.1.4a Aurora Transportation System Plan (1999)

- *Includes the objective to provide a greater degree of safety for pedestrians walking along Oregon 99E.*
- *Promotes alternative modes of transportation, transportation demand management programs, and transportation system management.*
- *Objective: Develop an efficient road network maintaining LOS D or better.*
- *Objective: Develop a more pedestrian-friendly Aurora consistent with historical preservation goals.*
- *Policy: Protect the function of existing and planned roadways, consider impacts of land use action, preserve right-of-ways, consider potential of accessways, paths, or trails before vacating any right-of-way.*
- *Integrate new arterial and collector routes into a grid system with an emphasis on reducing pressure on traditionally heavy routes.*
- *Goal: Provide sidewalks, bikeways, and safe crossings on arterial and collector streets demonstrating those needs and in a manner consistent with the historic nature of Aurora*
- *Provide shoulders on rural collector and arterial streets.*
- *Develop an access management strategy for Oregon 99E.*
- *Coordinate road improvement schedules with ODOT and Marion County.*
- *Proposes reconfiguration of the Ehlen Rd/Airport Rd intersection (has since been completed).*
- *Recommends consideration of measures to limit cut-through traffic in Aurora: potential Arndt Road interchange (Direct access Canby to I-5), and/or increasing travel time from Ehlen Rd interchange to Canby. Efforts would be coordinated with Clackamas County.*

3.1.4b Aurora Comprehensive Plan Update (2002)

- *Forecasts a population of 1262 in 2020.*
- *Identifies potential industrial land north and west of the current urban area.*
- *Describes Oregon 99E as "near its design capacity and in need of improvements."*
- *Recommends access control on Oregon 99E.*
- *"The city should work with Marion County and the Aurora Airport to encourage widening and straightening improvements to Keil Road cutoff to alleviate the existing physical constraints to truck traffic."*
- *Implements an 80-foot right-of-way and 50-foot setbacks on Ehlen Rd.*
- *Anticipates continued development of the airport industrial district; anticipates Airport Road as a major link serving that development.*
- *States that the city will continue to coordinate with Wilsonville's SMART transit system.*
- *Recognizes a need for commercial and industrial parcels in the UGB in the next 20 years.*
- *The city may consider extension of a sewer line to the Aurora Airport.*

3.1.5 Clackamas County Comp Plan: Chapter 5: Transportation (2002)

- *Identifies projects to signalize the Arndt/Airport Road intersection and widen and straighten Arndt Road to four lanes to Barlow Rd and construct a new 3-lane extension connecting Arndt Rd to Oregon 99E northeast of Barlow.*
- *Proposes widening the Whiskey Hill Road bridge at the county line to 32 feet.*

- *Proposes widening and straightening Meridian Road north of the county line.*
- *Proposes widening Oregon 99E to four lanes with a median from the Marion County line to Barlow Rd.*
- *Proposes constructing scour protection on the Oregon 213 bridge over Butte Creek between Clackamas and Marion counties.*
- *Proposes passing lanes on Wilsonville-Hubbard Hwy between Marion County and I-5.*
- *Identifies the following Functional Classifications of Clackamas County Roads at the Marion County border: Major Arterial: Arndt Rd, Wilsonville-Hubbard Hwy, Oregon 99E, Oregon 211, Oregon 213; Minor Arterial: Butteville Rd, Boones Ferry Rd, Lone Elder Rd, Whiskey Hill Rd, Monte Cristo Rd, Nowlens Bridge/Maple Grove Rd; Collector: Airport Rd, Meridian Rd, Elliot Prairie Rd; Local: Marquam Rd, Klupenger Rd.*
- *Notes a transit route along I-5 connecting Salem with Wilsonville and the Barbur Blvd. Transit Center.*
- *Notes an existing bikeway along Arndt Rd to the Marion County border.*
- *Proposes bikeways along the following roadways connecting to Marion County: Butteville Rd, Boones Ferry Rd, Airport Rd, Oregon 99E, Oregon 211, Elliot Prairie Rd, Meridian Rd, Monte Cristo Rd, Oregon 213, Nowlens Bridge Rd, and Maple Grove Rd.*
- *Designates Oregon 99E towards Salem as a desirable freight route.*
- *Policy: "Coordinate with Marion County to implement regulations on development near the Aurora Airport."*

3.1.6 Detroit Development Code (2001) and Comprehensive Plan (2002)

- *Includes access management requirements for new developments.*
- *Includes pedestrian access and circulation and street connectivity requirements.*
- *Encourages bikeway development for tourism.*
- *Recommends pursuing Marion County Housing Authority bus service.*
- *Recommends bikeways and walkways to minimize conflict with autos on Oregon 22.*

3.1.7 Donald Comprehensive Plan (1980)

- Recognizes that approximately 80%-90% of residents commute to work in Washington County.
- Proposes development of a park-and-ride lot if a commuter bus is provided.
- Supports MWVCOG carpool program.

3.1.8 Gates Comprehensive Plan (1978)

- Calls for a park-and-ride facility in the CBD if transit is provided.
- Recognizes that Oregon 22 is hazardous for pedestrians to cross, especially during tourism season.
- Identifies the need for limiting highway access for safety.

3.1.9 Gervais General Plan (1999)

- *Notes a 1996 population estimate of 1,080; an adjusted 2000 population (including subdivisions) of 1,956.*
- *Identifies the following functional classifications: Arterial: Third, Ivy, Douglas; Collector:*

First, Fifth, Seventh, Black Walnut.

- *Notes the existing grid system, which is advantageous to pedestrian and bicycle travel.*
- *Notes bicycle and pedestrian routes on 5' shoulders on Douglas Ave.*
- *Policy: Traffic movement on streets shall be facilitated by controlling access points wherever possible.*
- *Policy: Level of Service C is the minimum acceptable for city arterials and collectors.*
- *Policy: The major street network should function so that livability of neighborhoods is preserved.*
- *Policy: Give priority to street improvements that are necessary to achieve safety, lower maintenance costs and increased efficiency.*

3.1.10 Hubbard Transportation System Plan (1999)

- *Identifies maintenance of existing streets with poor to fair pavement conditions as top priority.*
- *Look for access management opportunities along Oregon 99E; develop Broadacres Rd to J St to Whiskey Hill Rd as an east-west route.*
- *Apply to open J St railroad crossing and improve intersection at Oregon 99E.*
- *Realign the intersection of D St and Oregon 99E.*
- *Add a truck route.*
- *Update design standards, goals, and policies.*
- *Transit facility at Riveness Park coordinated with the "North Marion County Service."*
- *Notes a 1977 Hubbard Comp Plan recommendation for an interchange at I-5 and Broadacres Road.*
- *Recommends extending existing collectors and arterials to provide for good local circulation and connection to intra-county and inter-county facilities.*
- *Plans a new perimeter collector from Mineral Springs Rd around the northern perimeter of the city and south to Whiskey Hill Rd.*
- *Plans substantial improvements to 3rd, 5th, D, and J Streets within the city.*

3.1.11 Idanha Comprehensive Plan (2002)

- *Policy: Idanha will actively seek bus service from the Marion County Housing Authority for eligible seniors.*
- *Policy: Provision should be made for bikeways to serve as an alternative mode of transportation; Investigate the installation of walkways to separate auto and ped traffic.*
- *New developments shall be required to fully develop streets to city standards.*
- *Notes a 1998 population estimate of 300 and a 2015 forecast of 337.*
- *Notes "aggressive steps to increase tourism and recreation opportunities in the area."*
- *Projects part-time and visitor population of 660 in 2000 and 880 in 2015.*
- *Describes twice daily service by Hamman stage lines from Redmond to Salem; as-requested passenger and freight service.*

3.1.12 Jefferson Transportation System Plan (2001)

- *Objective: maintain a volume/capacity ratio of 0.85 or better along Jefferson Hwy; maintain*

LOS D or better throughout the city.

- *Objective: continue to develop the road system as the principal mode of transportation.*
- *Objective: develop an access management plan for the local arterial street system and direct commercial development access to local streets wherever possible.*
- *Objective: Seek further improvement of mass transit systems to the City of Jefferson by encouraging more frequent scheduling of commercial carriers and by continued support of those systems presently developed for mass transit in the region.*
- *Goal: Improve coordination between the City of Jefferson, Marion County, and ODOT.*
- *Proposes a north-south collector roughly along 5th street from Cemetery Hill Rd to Jefferson-Scio Drive. Meets a need for a continuous through street east of the railroad.*
- *Identifies potential problem of a long freight train blocking all city crossings at once. – notes an emergency vehicle agreement for use of a private crossing if necessary.*
- *Plans a future signal at Jefferson Hwy/North Ave (Jefferson-Marion Rd).*
- *Recommends a future refinement study to consider the feasibility of a grade-separated railroad crossing.*
- *Recommends extensive construction of sidewalks, bike lanes, and shoulders.*
- *Defers to Marion County and ODOT access spacing standards.*
- *Provides guidelines for implementation of traffic calming measures on residential city streets.*

3.1.13a Keizer Comprehensive Plan (1992 periodic review)

- Proposes a study for Lockhaven Dr. from N. River Road to Chemawa interchange for future widening, noise buffering, and pedestrian crossing (safety is a concern near middle school).
- Recommends minimizing BNRR crossing conflicts.
- Supports evaluation of third bridge to support industrial development of the City.
- Establishes noise standard of 67dB for residential compatibility.
- Recommends increasing transit service to Clear Lake area, McNary Town Center, Chemawa Center.

3.1.13b Keizer Transportation System Plan (2000)

- *Forecasts a Keizer population of 35,698 in 2020.*
- *55% of Keizer trips were home-based non-work trips.*
- *Designates North River Rd. and Lockhaven Dr. as major arterials.*
- *Recommends improvements to traffic flow on Lockhaven Dr. to and from I-5.*
- *Recommends study of access management along North River Road.*
- *Supports a SKATS RTSP goal of restoring commercial navigation through the upper Willamette River where environmental impacts can be mitigated or minimized and economic justification exists.*
- *Goal: A safe pipeline into and out of Keizer.*
- *Notes Washington County's plan to start rail service from Beaverton to Wilsonville in 2003-2004 [now 2008] and the possibility of extending service to the Salem-Keizer area.*
- *Objective: Preserve all rail corridor rights-of-way for transportation-related uses.*

3.1.13c Keizer Station Plan (2002)

- *Provides preliminary planning work for an area set aside for substantial development near*

the interchange of I-5 and Chemawa Road.

3.1.14 Linn County Transportation Plan (1995)

- *Recommends replacement of the Mill City bridge within 15 years, primarily for width reasons.*
- *Assigns the following functional classifications Roads near the boundary of Linn and Marion Counties: Major Arterial: I-5, Oregon 22; Minor Arterial: Oregon 226, Jefferson Hwy, Stayton-Scio Rd; Major Collector: Jefferson-Scio Rd, Kingston-Lyons Dr.*
- *Proposes installing paved shoulders on Stayton-Scio Rd.*

3.1.15 Mill City Comprehensive Plan (1990 policies; 1991 background study)

- Encourages working with Linn and Marion counties and ODOT for a solution on the "single bridge problem" over the N. Santiam River.
- Identifies the eastern edge of Fishermen's Bend State Park as the "best location" for a new bridge.
- Recognizes the need to minimize industrial traffic through the city.
  Supports access management strategies to enhance highway operation and safety.
- Views the railroad as a vital economic link and encourages its continued use and improvement.
- Recommends that the City and County work out maintenance agreements.
- Identifies Oregon 22 as hazardous for pedestrian traffic.

3.1.16a Mt. Angel Comprehensive Plan (1987)

- Endorses the Access Management Techniques document (from ODOT) as a guide to access management.
- Identifies heavy reliance on the Woodburn-Springfield line *[now Willamette Valley Railway]* of Southern Pacific Railroad by a local farmers' cooperative (WILCO).
- Recommends restricting future RR crossings.
- Identifies several private, non-profit bus services (Benedictine Nursing Center, Mt. Angel, COA).
- Supports the concept of County-wide transit.
- References the City's guidebook for transportation system planning.

3.1.16b Mt. Angel Transportation System Plan (1997)

- *Estimates a population of 4,127 by 2015.*
- *Objective: "Where and when possible, acquire land on the west side of South Main Street to allow for future right-of-way connection with West Church Street."*
- *Policy: Encourage differentiation in the street network in order to reflect the intended function of the street.*
- *Maintain 'restricted access' on Oregon 214 from Garfield St south; encourage access management in other areas.*
- *The city is supportive of the concept of the creation of a Marion County transit program.*
- *The city supports retention and maintenance of the local rail line.*
- *The city will encourage ODOT to analyze intersections at Oregon 214/Marquam St and*

Oregon 214/Church St.

- *Functional Classifications: Arterial: Oregon 214; Collector: Church and Marquam Sts, Mt Angel Hwy; two future east-west collectors in western portion of city.*

3.1.17a Oregon Highway Plan (1999)

- *Goal 2: "System Management: To work with local jurisdictions and federal agencies to create an increasingly seamless transportation system with respect to the development, operation, and maintenance of the highway and road system that: safeguards the state highway system by maintaining functionality and integrity; ensures that local mobility and access needs are met; and enhances system efficiency and safety."*
- *Goal 3: "Access Management: To employ access management strategies to ensure safe and efficient highways consistent with their determined function, ensure the statewide movement of goods and services, enhance community livability and support planned development patterns, while recognizing the needs of motor vehicles, transit, pedestrians, and bicyclists."*
- *Goal 4: "To optimize the overall efficiency and utility of the state highway system through the use of alternative modes and travel demand management strategies."*
- *Designates the following State Highway Classifications: Interstate: I-5; Statewide: Oregon 22; Region: Oregon 99E, Wilsonville – Hubbard Hwy; District: Oregon 211, 213, 214, 219, 226, Jefferson Hwy.*
- *Provides a policy for designation of Expressways*
- *Action 1B.3: To assist in implementing state access management standards and policies, work with local governments to develop an access management plan or access management component in comprehensive plans, corridor plans and/or transportation system plans involving the state and local systems.*
- *Action: Work with local governments on developing an adequate local network of arterials, collectors, and local streets (including frontage roads) to limit the use of the State Highway or interchanges for local trips.*
- *Describes Special Transportation Areas (STAs) for "a highway segment when a downtown, business district or community center straddles the state highway within an urban growth boundary or in an unincorporated community…"; defines characteristics and requirements for STAs.*
- *Describes Urban Business Areas (UBAs) to "recognize existing areas of commercial activity or future nodes … on District, Regional, or Statewide Highways where vehicular accessibility is important to continued economic viability…"; defines characteristics and requirements for UBAs.*
- *Designates I-5 and Oregon 22 as part of the State Highway Freight System.*
- *Designates Oregon 22 and Forest Service 46 (Breitenbush Rd) as a State Scenic Byway.*
- *Policy: "Provide a secure lifeline network of streets, highways, and bridges to facilitate emergency services response and to support rapid economic recovery after a disaster."*
- *Defines acceptable roadway and intersection performance standards for State Highways.*
- *"It is the policy of the State of Oregon to place the highest priority for making investments in the state highway system on safety and managing and preserving the physical infrastructure."*
- *Goal: Development of cooperative partnerships with other jurisdictions.*
- *Policy: "Consider, in cooperation with local jurisdictions, interjurisdictional transfers that: … simplify management responsibilities … reflect the appropriate functional classification … or lead to increased efficiencies in operation and maintenance."*

- *Sets access spacing and interchange spacing standards for state highways; designates ranges which constitute a minor deviation (compared to a major deviation).*
- *Access management requirement for crossroads at rural freeway interchanges: no access within 1320 feet of the centerline of the nearest freeway ramp.*
- *Notes $29.1 billion in 'total needs' on the State Highway system and $13.9 billion in anticipated revenues.*
- *Notes that "Oregon highway users incur an estimated $16 billion per year in highway user costs" (fuel, vehicle maintenance, crash costs, etc.).*
- *Notes a marginal return on investment in 2020 of $310 million per year for each additional $10 million per year invested in preservation. Also estimates a 20 to 1 benefit/cost for safety investments.*
- *Projects a 60% increase (not including inflation) in per-mile cost to drivers in 20 years if current driving patterns and funding sources continue.*

3.1.17b Oregon Rail Plan (2001)

- *Oregon's freight rail traffic totaled 63.5 million tons in 1999, an 18% increase over 1992.*
- *"Ridership on the Pacific Northwest Rail Corridor through Oregon has increased concurrent with added frequencies of service, and growing highway congestion. Between Portland and Eugene, ridership in year 2000 totaled more than 100,000 passenger trips, up from slightly more than 24,000 passenger trips in 1993.*
- *"ODOT's goal for the Willamette Valley Corridor by 2003 is to increase the number of daily round trips from 3 to 5 and to reduce the travel time to 2 hours and 15 minutes from 2 hours and 35 minutes today."*
- *Anticipates potential commuter rail service on the BNSF line between Beaverton and Wilsonville beginning in 2004, with projected daily ridership of 4,600.*
- *"During the process of conducting the Beaverton-Wilsonville study, a number of people at the public hearings suggested that the service be extended southerly to Salem. The Beaverton-Wilsonville Steering Committee indicated that they did not want to entertain the suggestion at this time. They were concerned that the increased costs for this extension would make the overall project so large that funding would be even more difficult to obtain. They suggested that a more appropriate time to discuss the extension was once the Beaverton-Wilsonville project was fully funded. A preliminary look at the costs associated for this 27-mile extension seemed to indicate that capital costs for such an extension would be approximately $88 million. This included both track improvements and the necessary equipment."*
- *Plans an incremental approach towards high speed rail between Portland and Eugene.*
- *Notes that if a true high speed line were developed, it would likely have to be new construction.*
- *Identifies a funding need of "Rail, cross ties and turnout renewal" on the Willamette Valley Railway, costing $1,657,6000.*
- *Identifies funding needs of "Rail renewal, Bridge Repair, Cross tie renewal, and turnout renewal" on the Portland & Western Railway, some of which is in Marion County.*

3.1.18 Polk County Transportation System Plan (1998)

- *Notes a 1996 population estimate of 56,132 and a 2020 projection of 101,588.*
- *Policy: Work with cities to transfer jurisdiction of roadways to the city as urbanization*

occurs.

- *Policy: Strive to maintain LOS A on all county arterials and collectors, and will initiate corrective action to prevent degradation below LOS C.*
- *Policy: Support spot-dredging of the Willamette River.*
- *"Although waterborne transportation is not expected to become a major form of multi-modal transportation, several private operators are presently exploring opportunities for limited travel along the Willamette River."*
- *Notes annual usage of 1,000 vehicles on the Buena Vista Ferry [actual usage is approx. 8,500 annually].*

3.1.19 St. Paul Comprehensive Plan (1978 and 1985 amendments)

- Supports transit by providing parking facilities and signage, if needed.

3.1.20a Salem Area Comprehensive Plan and Transportation Plan (1992)

- Recommends new bridge in west Salem.
- Recognizes impacts of through-truck traffic on neighborhoods and downtown.
- References acquisition of Burlington Northern Railroad right-of-way for future transportation/recreation corridor.
- Prioritizes street projects in the capital improvement program.
- Recognizes concern for access to downtown from south Salem and west Salem.
- Includes regional transportation policies (general development, planning and management policies for all modes).

3.1.20b Salem Transportation Plan (1998)

- *Provides a street classification system for Salem.*
- *Provides design standards and typical cross sections for streets.*
- *Identifies recommended roadway improvements for city streets.*
- *Recommends the following improvements for Marion County:*

  High Priority:

  < *Align Market Street with Swegle Rd at 45th Ave; widen to standards*
  < *Interstate 5 from North Santiam Interchange to Delaney Rd Interchange (Widen to three lanes each direction; raise Battle Creek bridge)*
  < *Blossom Dr from Indian School Rd to Portland Rd (Widen to standards)*

  Medium Priority:

  < *Install traffic signal and turn lanes at intersection of Cordon and MacLeay Roads*
  < *Lancaster Drive access management project, State St to Silverton Rd*
  < *Cordon Rd / Oregon 22 Interchange*
  < *Cordon Rd and Pennsylvania Ave (Add left turn lane)*
  < *State St from Lancaster Dr to Cordon Rd (Widen to 3 lanes, curbs & sidewalks)*
  < *Ward Dr from Fisher Rd to Lancaster Dr (Widen to 3 lanes, curbs & sidewalks)*
  < *Center St from Lancaster Dr to Cordon Rd (Widen to 3 lanes, curbs & sidewalks)*

  Lower Priority:

  < *Kale Rd from Portland Rd to Cordon Rd (Widen to 3 lanes, curbs & sidewalks)*
  < *Sunnyview Rd from Lancaster Dr to Cordon Rd (Widen to 3 lanes, curbs &*

sidewalks)

- < *Brown Rd from Sunnyview Rd to Silverton Rd (Widen to standards)*
- < *Hollywood Dr from Silverton Rd to current City Limits (Widen to standards)*
- < *Auburn Rd from Cordon Rd to Lancaster Dr (Widen to standards)*
- < *MacLeay Rd from Cordon Rd to Pennsylvania Ave (Widen to standards)*
- < *45th Ave from Silverton Rd to Ward Dr (Widen to standards)*
- < *Herrin Rd from 45th Ave to Cordon Rd (Widen to standards)*
- < *Kuebler Blvd from Croisan Creek Rd to Viewcrest Dr (Widen to standards)*
- < *Viewcrest Dr from Keubler Blvd to Viewcrest Extension (Widen to standards)*

- *Recommends increased frequency, extended hours of operation, and expanded weekend service for the Salem Area Mass Transit District.*
- *Includes goals and objectives for transportation demand management, parking management, intercity passenger travel, freight movement, and transportation system maintenance.*
- *Includes long-range transportation strategies for urban street standards, regional transit service, Willamette River crossings, off-street facilities, activity subcenters, mixed use developments, increased residential densities, local street connectivity.*
- *Provides recommended long-range street system improvements for the Oregon 22 corridor, circumferential travel routes, and other corridors in the city.*

3.1.20c Salem Transportation System Plan – 2000 and 2001 Amendments

- *No changes significantly affecting the Marion County Rural Transportation System Plan.*

3.1.20d Salem Transportation System Plan – 2005 Amendments

- *Removed a 'capacity freeze' on the Keubler/Cordon circumferential route.*
- *Notes planned traffic signal and intersection improvements at the intersection of Cordon Road with MacLeay Road and a left turn lane on Cordon Road at Gaffin Road.*
- *Specifically identifies the need for an additional bridge across the Willamette River.*
- *References development of the Salem Regional Employment Center east of Keubler Blvd between Turner Rd and Hwy 22.*

3.1.21 Salem-Keizer Area Transportation Study (SKATS) Regional Transportation Systems Plan (RTSP) 2002 Update

- *Promotes compact development with higher population densities and mixed land uses.*
- *Encourage transit-, pedestrian-, and bicycle-friendly developments.*
- *Forecasts 270,500 residents of the Salem-Keizer UGB and 281,000 residents of the SKATS area by 2025 (both 33% increases).*
- *Forecasts 123,313 jobs in the Salem-Keizer UGB and 125,072 jobs in the SKATS area by 2025 (both 33% increases). 95% of employment growth is forecast to be east of the Willamette River.*
- *Notes a downward trend in number of air flights using McNary Field.*
- *Notes a 31% decline in Amtrak passenger boardings from 1985 to 1994 and a 193% increase from 1994 to 2001.*
- *Notes a 60% increase in Cherriots transit ridership from 1991 to 2001.*
- *Notes a ridership of about 47,000 people using the CARTS regional transit program in July*

2000 through June 2001; 16,500 in Marion County.

- *Notes an 80% increase in traffic crossing the River in Salem from 1981 to 2000.*
- *Identifies significant funding shortfalls for virtually all aspects of the Salem-Keizer regional transportation system.*
- *Recommends a pedestrian/bicycle improvement on Center Street from Cordon to 63rd.*
- *Recommends a multi-use path in place of the existing Geer Railroad line from the I-5 right-of-way to 63rd Ave (remove rails and install pathway).*
- *Recommends a multi-use path in place of the existing Burlington Northern – Santa Fe rail line within Salem and extending to the southwest.*
- *Recommends 'bicycle facilities' extending out from Salem to the SKATS boundary on S. River, Skyline, Liberty, Sunnyside, and Sunnyview Roads.*
- *Recommends traffic signal interconnection throughout the Salem-Keizer Urban Area.*
- *Designates Cordon and Hazelgreen Roads as "existing freight-supportive roadways."*
- *Identifies potential improvements to McNary Field Airport, including reconstruction of the terminal building and possible lengthening of the main runway. This is not expected to significantly increase traffic at the airport.*
- *Explores the possibility of maritime freight transportation (barges) on the Willamette River, reaching the explanation that it would require substantial dredging that would encounter significant cost and environmental issues, thus not being worth exploring at this time. Recreational and excursion-boat use of the river is possible.*
- *Identifies future ramp and electrical improvements at the Wheatland Ferry.*
- *Goal: Preserve rail rights-of-way that may be abandoned for future transportation-related uses.*
- *Promotes improvements to the rail system serving the Salem-Keizer area, including improvements to track north and south of the area.*
- *Identifies the possibility of passenger service along the BNSF/P&W line from Salem/Keizer to Wilsonville and Beaverton.*
- *Outlines several Transportation Demand Management and rideshare programs serving commuters to the Salem-Keizer area.*
- *Goal: A balanced regional transportation system that affords the residents and businesses in the Salem-Keizer area a range of viable modal options for the movement of people and goods.*
- *Designates a regional Congestion Management System (CMS) (for monitoring and analysis of congestion and use of major travel corridors) consisting of many of the major roads in Salem/Keizer, including Cordon Road and Hazelgreen Road.*
- *Support for bus service to potential park-and-ride locations near the 'major corridor entry points to the region.'*
- *Recommends a future signal interconnect on Cordon Road from State St to Silverton Rd.*
- *Goal: An integrated transportation system that provides convenient service in the interregional and interstate corridors.*
- *Policy: Support public and private efforts to develop and implement appropriate expansions of bus and rail service, including commuter rail, between the Salem-Keizer area and locations outside the region.*
- *Support intercity Amtrak rail service and thruway bus service, the CARTS regional transportation system, rail improvements (including high speed rail).*
- *Recommends a feasibility study with county staff of bus service connecting Salem/Keizer with cities in Marion and Polk counties.*
- *Recommends study to determine impact of future Keizer Station development on the*

Chemawa interchange.

- *Refers to the Willamette River Crossing Study identification of the Tryon / Pine corridor as the preferred location for the eastern terminus of a future bridge across the Willamette. The plan identifies a need for additional capacity across the Willamette River.*
- *Recommends a signalization / realignment project at Cordon Rd / Macleay Rd.*
- *Recommends adding left turn lanes on Cordon Rd at Herrin Rd and Pennsylvania Ave.*
- *Recommends study of the area to determine the necessity and feasibility of a new interchange between Cordon Road and Oregon 22. If a new interchange is not appropriate, recommends reconstructing the existing overpass to address functional and safety issues.*
- *Recognizes that the region faces a significant financial shortfall in the foreseeable future.*

3.1.22 Scotts Mills Comprehensive Plan (2002)

- *Goal: To develop a balanced transportation system including alternatives such as public transit, bicycle, and pedestrian facilities.*
- *Notes a 2000 census population of 312 and a 2020 forecast of 420.*
- *"The city should provide means of communication [for arranging carpools] through Council actions and community posters."*
- *Recognizes that existing streets meet the basic transportation needs of the community.*
- *Recognizes a need for bicycle and pedestrian facilities, especially between the elementary school and the central area.*

3.1.23a Silverton Comprehensive Plan (1989)

- Establishes 60-foot minimum right-of-way standard for arterial streets and subdivision/partition dedication requirement.
- Establishes 60-foot minimum right-of-way standard for collector streets. Gives priority to improvement of collectors providing access to the industrial park.
- Establishes 60-foot minimum right-of-way standard for local streets, unless it can be demonstrated that less right-of-way is more desirable.
- Requires off-street parking in new commercial and industrial developments.
- Discourages "strip" commercial development.
- Supports development of special setback requirements along arterials to reflect the possible need for future expansion of the street improvement and to increase sight distances.
- Calls for the City to investigate ways to assist special transportation programs serving the elderly.
- Attempts to identify sources of funding for additional transportation studies, such as street network adequacy, parking needs, accident patterns, signage, traffic control devices (especially downtown), commuter patterns and feasibility of bus and carpooling programs.

3.1.23b Silverton Transportation System Plan (2000)

- *Identifies access management strategies for Silverton Rd, Oregon 213, and Oregon 214 within the UGB.*
- *Notes existing LOS F on C St at Water St and on First St at C St (southbound right turn); LOS E on C St at McClaine St.*
- *Notes lack of sidewalks on C and Jefferson Sts, Hobart, Monitor, and Steelhammer Rds, and Eureka Ave.*

- *Notes that Willamette Valley RailRoad in Silverton is considered "excepted" – freight service only with maximum speeds of 10 miles per hour.*
- *Describes "The Silver Trolley" – fixed route hourly van service on Mondays and Wednesdays in town, with dial-a ride availability on Fridays. Links with regional transportation system.*
- *Recognizes 'inadequacy' of service for the transportation disadvantaged.*
- *Projects a 2020 population of 9,965 – essentially buildout of UGB at existing zoning.*
- *Proposes a north-south collector between Silverton Rd and Pine St (Hazelgreen Rd).*
- *Proposes a north-south collector east of the city, possibly extending Monitor Rd to join to Ike Mooney Rd near Water St/Oregon 214.*
- *Proposes traffic signals or roundabouts at Westfield/C/McClaine and C/Water.*
- *Proposes traffic signals at First/C, Water/Oak and Water/Main.*
- *Recommends street widening of Silverton Rd, Cascade Hwy, Eureka Ave, C St, Hobart Rd, Monitor Rd, Pine St, South Water St, Westfield St, and Steelhammer Rd.*
- *Recommends not widening collectors and arterials in established neighborhoods.*
- *Recommends development of a traffic calming program for city streets.*
- *Recommends expansion of the 'Silver Trolley' transit service.*
- *States the desirability of intercity bus service between Silverton and Woodburn.*
- *Recommends development of park-and-ride lots in connection with inter-and intra-city transit systems.*

3.1.24a Stayton Comprehensive Plan (1991)

- Supports commuter transit to and from Salem.
- Supports the MWVCOG carpool program (park-and-ride lot provided at Oregon 22).
- Recognizes the use of the rail spur in town by NORPAC foods, WILCO and Truss-Joist.
- Recognizes the potential for a thermal energy pipeline as the US Forest Service permits exploratory geothermal drilling at Breitenbush.
- References the development of a bike route between Stayton and Sublimity in cooperation with Marion County.
- Identifies the need for safer and more convenient accesses to and from Oregon 22.
- Acknowledges industrial traffic needs and downtown traffic routing as pertinent issues.
- Identifies the need for two more bridges if a truck bypass is designated.

3.1.24b Stayton Transportation System Plan (2004)

- *Identifies future capacity deficiencies on Cascade Hwy/1st Ave and Golf Club Rd and the Cascade Hwy / Hwy 22 Eastbound Ramp.*
- *Proposes widening Cascade Hwy/1st Ave to five lanes from Hwy 22 to Regis St; Golf Club Rd to five lanes from Hwy 22 to Shaff Rd, and reconstructing the Hwy 22/Cascade Hwy interchange.*
- *Based on a 2025 city population of 10,213.*
- *Proposes roundabouts at Wilco/Washington/Ida and along East Washington/Jefferson/Santiam Streets.*
- *Policy: seek improvements of mass transit services to the City of Stayton.*
- *Designates a through truck route along its arterials and major collectors.*

- *Recommends access management on First Ave and other arterials.*
- *Mentions a need for route allowing trucks to bypass 1st Ave, towards Golf Club Rd.*
- *Designates pavement widening, sidewalk sections and bike lanes to add along key roadways.*
- *Recommends transit service from Stayton to Salem and other common destinations.*

3.1.25a Sublimity Comprehensive Plan (1987)

- Discourages on-street parking for the safety of bikes and pedestrians.
- Endorses access management policies.
- Recommends City to acquire East Starr Street and Berry Street from the County.
- Identifies need for access improvement from Carter Street to Oregon 22 to serve future industrial growth.
- Encourages development of public transit services to meet the needs of the transportation disadvantaged.
- Encourages use of carpools, vanpools and other strategies to increase automobile and energy efficiency.
- Recommends bike paths and sidewalks be provided to connect schools, parks, and shopping centers with residential areas.
- Calls for review of access points during the building permit review to minimize congestion and safety problems.
- Advises the City to consider adopting the State Highway Compatibility Guidelines and Model Ordinance.
- Recommends that future streets facilitate access to major transportation routes.
- Proposes the major street network function in such a way so that the livability of neighborhoods is preserved and enhanced. Discourages arterial streets that penetrate identifiable neighborhoods.
- Promotes new street development standards to facilitate development of odd-shaped parcels.
- Identifies the need for landscaping and noise reduction in road design.
- Recommends giving priority to improvements necessary for safety, lower maintenance costs, and increased efficiency.
- Identify repair/construction needs and prepare Capital Improvements Program.
- Cooperate with agencies, developers and owners to provide equitable and cost-effective financing of improvements.

3.1.25b Sublimity Transportation System Plan (1998) (Currently Under DLCD Review)

- *Policy: Encourage the development of a public transportation service for the transportation disadvantaged.*
- *Policy: The acceptable level of service for arterial and collectors shall be 'C' or better.*
- *Policy: Give priority to street improvements, which are necessary to achieve safety, lower maintenance costs and increased efficiency.*
- *Policy: Traffic movement on arterials shall be facilitated by controlling access wherever possible.*
- *Proposes refinement studies of Center St/Cascade Hwy through the city, including capacity analysis of the Center/Starr intersection. Recommends installation of sidewalks along*

Center St, several curb extensions at key intersections, and a center turn lane through the southern part of the city.

- *Suggests development of alternate routes for north-south traffic and development of an alternative truck route.*
- *Foresees potential need for an east-west collector south of the UGB, such as an extension of 9th St; the city encourages Marion County to include potential for this in its TSP.*
- *Proposes several new north-south and east-west streets within the UGB.*
- *Proposes extending Dalmatian Ave south to Sublimity Blvd and also to the north towards Main St.*
- *Proposes a west perimeter road running north-south west of the UGB and encourages Marion County to include potential for this road in its TSP.*
- *Lists the following Functional Classifications: Arterial: Cascade Hwy/Center St; Collector: Sublimity Rd, Starr St, Church St, Berry St.*
- *Recommends maintaining parking on Center St.*
- *Recommends development of bikeways along Cascade Hwy/Center St, Sublimity Rd/Starr St, Church St, Berry St/135th Ave, and Pine St.*

3.1.26a Turner Comprehensive Plan (2001)

- *Incorporates the 1999 Turner TSP into the Turner Comprehensive Plan.*
- *Recognizes that transportation systems 'become the basic structural and organizational framework on which a community grows and develops.'*
- *Notes 'some congestion' during the a.m. and p.m. peak hours at the 'intersections of 3rd Street/Delaney Road and 3rd Street/Val View Drive due to the lack of turning lanes'.*
- *States that 'All of the streets are expected to operate at acceptable levels (Level of Service C or better) during the next 20 years.'*
- *Notes that 'Residents are concerned about increased gravel truck traffic through town that will occur in about 10 years as a result of a new sand and gravel extraction site just south of Turner. … The City must coordinate efforts with Marion County and the site owners to mitigate impacts in Turner, including the possibility of a bypass route south of town.'*
- *'Renewal of the "Downtown" should begin immediately and should be continually improved as the community grows.'*
- *Recommends changing parking from 'head-in' to other forms of parking.*
- *Recommends more provision of pedestrian facilities within Turner.*
- *Refers to the CARTS program providing public transportation to and from Turner.*
- *Recommends consideration of developing rail service to Turner from the UP mainline.*
- *'Access controls shall be used to integrate traffic and land use developments, to minimize the potential impacts associated with increased growth. Arterial access locations shall be kept to a minimum.'*
- *'The City and Marion County shall seek to re-route the Commercial Corridor so motorists will make one turn at 3rd Street and Denver Street.'*

3.1.26b Turner Transportation System Plan (1999)

- *Updates and replaces existing text in Article 6 of the Comp Plan.*
- *Forecasts Turner population of 2,363 in 2020.*
- *Anticipates need for a left turn lane on 3rd Street at Delaney Rd and possibly on 3rd Street at Val View Drive.*

- *Notes citizen concern about gravel trucks passing through town; mentions "the possibility of a bypass route south of town."*
- *Notes potential increased demand for shuttle service to Salem.*
- *Walkways and bikeways should be built along all arterial and collector streets, especially along the commercial corridor.*
- *Recommends rerouting through traffic to 3rd and Denver Streets, rather than Chicago and 2nd Streets.*
- *Recommends vacating the right-of-way of unbuilt streets in flood areas south of town.*
- *Recommended Improvements: Upgrading the 'commercial corridor' of 3rd and Denver Streets with sidewalks, bike lanes, curbs, gutters, center turn lanes, parking, and storm drains; Improving 2nd and Gaston Streets to re-route access to 55th Ave.*
- *Recommends developing an alternative to the 4th Street bridge over the Mill Creek Bypass and taking the bridge out of service.*
- *Notes a need to replace the Wipper Rd bridge over Mill Creek Bypass.*
- *Notes that the owners of the gravel operation southeast of town are required to pay for widening of the Marion Road bridge over Mill Creek.*
- *Notes that "The county expects the intersection of Marion Road and Mill Creek Road to operate at LOS E by the year 2015.*
- *Recommends extending Delaney Road to the east to connect with Witzel Road.*
- *Recommends extending Gaston St west to Wipper Rd.*
- *Notes a strong public desire for: Daily shuttle service to Salem, transportation service for the transportation-disadvantaged, extending Cherriots bus service to the park-and-ride lot at I-5 and Delaney Road, extending Cherriots bus service to Turner.*
- *Notes potential desirability of reducing the amount of commercial-zoned land, especially along 3rd Street north of Mill Creek to focus commercial activity on the 'downtown' core.*
- *Recommends access management along the 3rd Street corridor.*
- *Goal: An inviting pedestrian and bicycle-friendly streetscape for the commercial corridor.*
- *Policy: "The City supports and encourages Marion County to study the feasibility of a southern truck route bypass around the City of Turner."*
- *Policy: "The City supports the Oregon Department of Corrections' vision to construct a multi-use path along Mill Creek from the south boundary of the City of Salem into Salem. If such a path is constructed, the City of Turner will pursue extending the path into Turner."*

3.1.27a Woodburn Transportation Plan (1996) and Comprehensive Plan (1989)

- Supports access management strategies.
- Identifies need to expand Oregon 99E and Oregon 214 to serve growth plans.
- Identifies three I-5 access alternatives for Woodburn: develop a split diamond interchange; develop a second interchange at Parr Road; and improve the existing interchange, including an option to convert to a partial cloverleaf configuration. (All three build alternatives include development of some kind of south bypass from Oregon 214 to Oregon 99E, as well as improvements to the city's minor arterials and collectors.)
- Evaluates different intracity and intercity bus service options, including improvements to existing routes and new service from Woodburn to Portland and Salem.
- Recommends improvements, design standards, and new facilities for roadways, transit, pedestrians, bicycles, golf carts, and rail.

- Provides an access management analysis for the Oregon 214/Oregon 99E corridor.

3.1.27b Woodburn Comprehensive Plan (including 1999 Amendments)

- *Assumes a city population increase to 28,000 by 2014.*
- *"Woodburn will continue to show a transition from an agricultural-based economy to a manufacturing-based economy. Woodburn is also in transition from a mostly rural area to a service center for smaller communities. Woodburn will also continue to be a freeway – oriented service center.*
- *Plans access consolidation along Oregon 214 and along Oregon 99E.*
- *"The City's public facilities now being built are to be paid for by the system development charges from the anticipated growth."*

3.1.28 Yamhill County Transportation System Plan (1996)

- *Recommends "a joint study between the ODOT, Yamhill County, and neighboring counties to determine the optimum location of a bridge intended to relieve the congestion on the Wheatland Ferry."*
- *"Fully supports the concept of a Newberg-Dundee bypass to relieve congestion on Oregon 99W." [Note: All options being considered are within Yamhill County.]*
- *Notes a 1994 county population estimate of 72,800.*
- *Designates Oregon 219 a Minor Arterial at the Yamhill-Marion County border and Wheatland Road a Major Collector as it approaches the Wheatland Ferry.*

3.1.29 *Bathymetric Survey and Dredge Plan – Willamette River Miles 80-97 (1998)*

- *Considered the feasibility of dredging a 100' wide, 6' deep navigation channel in the Willamette River from Mile 80 (Salem) to mile 97 (Independence). The focus seemed to be on feasibility of excursion vessels, rather than commercial freight vessels.*
- *Notes significant shoaling (sand and gravel causing a shallow river) just north of the Salem bridges.*
- *Assumed dredged material would be desirable to aggregate businesses.*
- *Estimated cost of dredging a 100' wide, 6' deep channel to be approx $750,000 from Salem Bridges to Independence, and $1.2 million including the shoaling north of the Salem bridges.*

3.1.30 Brooklake Road / I-5 Interchange Management Plan (ODOT, June 1997)

This study investigates future traffic conditions at the I-5/Brooklake Road Interchange. The study area includes the Brooklake Road corridor from River Road to Oregon 99E.

Substantial development could occur in this area. Most notably, the Oregon Agricultural Center (OAC), an industrial park and visitor center, was once planned for the existing NORPAC site east of the interchange. However, the future of this project is unclear at this time.

If the NORPAC OAC project occurs, the following improvements identified in the *Master Plan Traffic Impact Analysis for the Oregon Agricultural Center* would be recommended:

- Install signals on Brooklake Road at the intersections with the I-5 southbound and northbound ramps, and the OAC east access.
- Construct four lane cross section on Brooklake Road from the I-5 northbound ramps to the OAC east access.
- Construct loop ramp from westbound Brooklake Road to southbound I-5.
- Construct an additional lane on both the northbound and southbound I-5 off-ramps.
- Construct a free right turn lane from the I-5 northbound off-ramp to eastbound Brooklake Road.
- Construct double left turn lanes on eastbound Brooklake Road at the two OAC access intersections.

Truck stops, restaurants, and other projects have been proposed on Brooklake Road west of the interchange. These developments and the possible construction of the OAC are expected to negatively impact the operation of the interchange and the intersections on Brooklake Road. The purpose of this study was to analyze the magnitude of traffic volumes within the study area after complete build-out occurs under two different land use scenarios, and to recommend appropriate improvements to the interchange and adjacent street network. Conclusions of the study are as follows:

"Land Use Scenario A" assumes development will occur in conformance with the current zoning. If Scenario A occurs without the NORPAC OAC project, the following improvements are recommended:

- Install signals on Brooklake Road at the intersections with the I-5 southbound and northbound ramps.
- Construct right turn pockets on both the I-5 northbound and southbound off-ramps.
- Construct a free right turn lane from eastbound Brooklake Road to the I-5 southbound on-ramp.

"Land Use Scenario B" assumes that vacant land in the corridor is developed at a higher intensity than designated by the current zoning. If this scenario were to occur, major interchange improvements would be necessary to maintain acceptable levels of service at the interchange. These improvements would include:

- Reconstruct interchange (construct multiple loop ramps and additional lanes).
- Make additional improvements at all of the adjacent Brooklake Road intersections. (Specific improvements would have to be determined from further analysis.)

"Land Use Scenario A" is considered more likely to occur.

3.1.31 Brooks - Hopmere Community Plan (2000)

- *Estimates current Brooks population of about 374 people in 204 housing units.*
- *Assumes slightly more transportation – intense development than previous.*
- *Recognizes that Brooklake Road will be close to capacity within the planning horizon.*
- *Raises the possibility of a 'bank' to fund capacity improvements through developer contributions.*
- *New development must be reviewed to ensure no adverse impact on transportation*

system.

3.1.32 Detroit Lake State Park Master Plan (2002)

- *Recommends renovation and relocation of some facilities, and building some new facilities, but nothing that would significantly increase their level of usage.*
- *Plan would convert many tent sites to a smaller number of larger, full hook-up sites.*
- *Recommends construction of a pedestrian and bicycle connection between the State Park campground and the City of Detroit.*
- *Notes boating capacity issues at peak periods near boat ramps and parking capacity issues at Mongold and campground.*
- *Recommends better connections between State Park and Forest Service trails.*
- *Recommends improving safety of vehicular connections to Oregon 22.*
- *Proposes minor expansion of Mongold day use area.*
- *Proposes new group camp at Tumble Creek.*

3.1.33 Oregon 99E Corridor Safety Report (2002)

- *Notes the designation of Oregon 99E as a safety corridor.*
- *Notes a significantly high number of crashes along Oregon 99E from 1994 through 1999; purpose of study was to attempt to address potential safety issues along Oregon 99E between North city limits of Salem and North city limits of Canby.*
- *Notes a higher-than-average rate of alcohol involvement in crashes.*
- *Notes a higher-than-average rate of pedestrian fatalities.*
- *Recommends installation of 'launch pads' for police to better monitor traffic.*
- *Recommends the following projects: access closure and consolidation near Labish Gardens Rd; left turn refuge on Oregon 99E at Perkins; left turn refuge at 54th St, realign 54th to be closer to a 'T' intersection ('T-up'), widen radii at Ramp St, access consolidation near Brooks, center left-turn lane through Brooks, left turn refuge at Waconda; relocate and 'T-up' Checkerboard; left turn lane for Checkerboard and Keene/Duck Inn; 'T-up' Boones Ferry and add left turn refuge; 'T-up' Howell Prairie and install left turn refuge; Sidewalks, shoulder bikeways, and access consolidation in Hubbard; add left turn lane from D St to Wilsonville-Hubbard Hwy; consideration of possible signal at G St, RR x-ing on J St, improvements to Oregon 99E.*
- *Notes that funding is not available to construct all recommended projects.*

3.1.34 Oregon 214 Alternatives Analysis Study (1999)

- *This study addresses the need for and configuration of alternate improvements to Oregon 214 between the I-5 northbound ramps and Park Avenue (just east of the UPRR railroad tracks).*
- *Notes a high crash frequency per vehicle mile on this section of Oregon 214.*
- *Notes LOS F for minor street stop-controlled approaches to 214; notes that actual conditions are better because of 2-way left turn lane.*
- *Calculates LOS C/D for signals on Oregon 214; notes that actual conditions are worse, noting that vehicle queues often extend into other intersections; video notes that these intersections are at or over capacity.*
- *Based on 51% housing growth and 60% employment growth by 2020.*

- *Recommends a five-lane section (including either a center left-turn lane or raised median) for all of Oregon 214 in the study area, at an estimated cost of about $15 million.*
- *Notes that the road is still close to capacity in 2020.*

3.1.35 Marion and Polk Counties' Regional Transportation Enhancement Plan (1998)

- *Basic Question: "How can transportation choices increase for the region's senior and disabled residents without additional funding?"*
- *Goals: Increase transportation choices; Enhance local community autonomy; Create a customer-oriented focus for planning and development; Keep the regional system accountable; Enhance community sustainability; Promote regional planning; Use, where possible, technology to maximize efficiency of operations, planning, and administrative functions.*
- *Short term action: Create two transit routes serving north Marion County and central Polk County – initially provided by WHEELS; now operated by CARTS.*
- *Market the benefits of the regional transit system.*
- *Identifies five-days a week, twice a day existing fixed-route service: Silverton>Mt. Angel>Gervais >Donald>Aurora>Hubbard>Woodburn (Mall 99)> Mt. Angel>Silverton.*
- *Identifies Wednesday-only existing fixed-route service Salem Cherriot Station>Lancaster Mall>Silverton>Mt. Angel>Woodburn (Mall 99)>Lancaster Mall>Cherriot Station.*

3.1.36 Newberg Dundee Transportation Improvement Project Draft EIS (2002)

- *Seeks to improve regional and local (Newberg-Dundee) transportation along the Oregon 99W corridor in the Newberg-Dundee area by reducing traffic congestion, primarily by investigating the provision of a bypass for through traffic around Newberg and Dundee.*
- *Reviews the impact of eight potential bypass corridors, plus a No Build Alternative.*
- *None of these corridors or alternatives extend into or through Marion County.*
- *Some involve interchanges between the bypass and Oregon 219 just north of Marion County.*

3.1.37 Resolution passed by the Marion County Board of Commissioners in 2001:

- *RE: Newberg-Dundee Bypass Study: "It is resolved that the Marion County Board of Commissioners opposes efforts to locate the regional bypass in Marion County and urges that all consideration of locating the bypass in Marion County be immediately discontinued."*

3.1.38 Rural Community Plans

- *Unincorporated community plans and land-use inventories have been developed for Marion, Mehama, Monitor, Quinaby, Fargo Interchange, Butteville, Labish Village, Macleay, Shaw, and the Turner Interchange. These include detailed zoning maps and inventories of existing uses and vacant parcels. They do not include any significant transportation recommendations.*

3.1.39 Salem-Keizer Area Transit District Strategic Business Plan (2004)

- *The plan includes establishing a Keizer transit center (near N. River/Chemawa) in 2005 and South (S. Commercial near Madrona) and East (Lancaster Mall area) transit centers in 2007-09.*
- *These additional transit centers would allow shorter routes and transfers between area routes so that riders would not have to go downtown to get to a neighboring route.*
- *'Trunk' lines with very frequent service would be installed between downtown and these transit centers. Routes would also be investigated connecting these transit centers to each other*
- *Plans to work towards implementing in 2005-06 a 'High Priority Transit Corridor' for which buses would receive signal priority, reduced cross-street traffic, and a special lane on Broadway and North River Road.*
- *Increased use of technology, to measure service and ridership, speed up the fare collection process ('smart cards'), and to notify customers where buses are, when they're expected to arrive, etc.*
- *Notes that service between Salem and Wilsonville (and connecting to Portland) is being heavily used.*
- *Proposes a feasibility study for a downtown Salem trolley*

3.1.40 Salem to Bend Corridor Interim Corridor Strategy (1998)

- *Notes a planned project to widen Oregon 22 to four lanes from Golf Club Road east to Fern Ridge Road and reconstruct the Cascade Highway interchange; would also raise bridges at Albus and 72nd, and rebuild eastbound ramps at Oregon 214 interchange.*
- *Notes several cities in which Oregon 22 becomes a main street within the city and where access management becomes an issue.*
- *Notes significant seasonal traffic volume variation; July volumes east of Gates are approximately 2.5 times January volumes.*
- *Notes some congestion on Oregon 22, particularly within cities.*
- *Projects approximately 80% traffic volume growth on Oregon 22 from 1997 to 2016.*
- *Recommends adding passing lanes at several locations along Oregon 22.*
- *Recommends improving visibility at several locations.*
- *Goal: Increase vehicle occupancy rate through rideshare, vanpooling, and park-and-ride.*
- *Goal: Establish commuter transit between Salem and smaller cities.*
- *Goal: Preserve or acquire abandoned rail lines for use as trails.*
- *Support increased use and improvement of the Willamette Valley RR tracks.*
- *Goal: Provide better pedestrian and bicycle facilities along the corridor.*
- *Investigate feasibility of bike/ped path between Detroit Lake State Park and Detroit.*
- *Goal: Improve pedestrian crossing opportunities, especially in and near cities.*
- *Goal: Improve safety and reduce congestion at North Fork Road intersection, at Oregon 226 in Mehama, at 1st Ave in Mill City, in Detroit, and in Marion Forks.*
- *Goal: Keep the highway v/c ratio below 0.60 in rural areas, 0.65 in unincorporated communities, and 0.75 in incorporated cities.*
- *Goal: Examine methods of reducing negative impacts of Oregon 22 on surrounding communities, parks, and neighborhoods.*

- *Goal: Reduce energy consumption in use of Oregon 22.*

3.1.41 Willamette River Commercial Navigation Feasibility Study - Informational Update (Mid-Willamette Valley Economic Development District, 1994)

This study analyzes the feasibility of dredging the Willamette River for commercial barge traffic between the Yamhill River and the Salem/Independence area. The river was previously dredged by the Army Corps of Engineers in the 1970s. The study reviews potential economic, wildlife and farm-related impacts; and analyzes costs and jurisdictional/regulatory issues.

- The study finds a potentially significant economic benefit from dredging aggregate and using the river to transport aggregate and other bulky materials (i.e., using general Army Corps of Engineers criteria). Five out of 24 companies responding to a survey said that they were "very interested" in barging products. Four of those companies said they would be willing to invest in or share the cost of river docking and loading or port facilities.

- The report indicates potential environmental impacts of and regulatory requirements for dredging. An Oregon Water Research Institute study is studying potential impacts to salmon species.

3.1.42 Willamette River Crossing Capacity Study (1998)

- *Investigated the potential need for and possible benefits of additional capacity for vehicle travel across the Willamette River.*
- *Notes 56% of current trips on the Center/Marion bridges have both ends within the SKATS area; 37% is internal-external and 7% is external-external.*
- *Notes that "Further improvements to the existing bridges or building an additional bridge directly adjacent to the existing bridges would have limited effectiveness due to the significant constraints of the surrounding street network.*
- *Considered 16 potential bridge locations throughout the Salem-Keizer area and beyond.*
- *Eliminated many alternatives as having too much impact on established neighborhoods, parks, historical landmarks, and other resources, or for not yielding enough benefit, or costing too much.*
- *Alternatives suggested for further study are Tryon Street, Pine Street, Kuebler Blvd, and a beltline alternative.*

3.1.43 Willamette Valley Transportation Strategy, Phase One Report (ODOT, 1995)

This plan was developed by the Valley Policy Advisory Committee on Transportation (VPACT) for ODOT, and includes three primary goals: mobility, industrial growth and livability, with emphasis on livability. The plan includes two components: a Transportation Development Strategy and the formation of a Valley Livability Council (Transportation Coordination Strategy). The former recognizes highways as the backbone of the Valley's transportation system for people and freight, but places increasing emphasis on:

- Developing urban transit;

- Developing intercity rail passenger systems and other alternatives to the single occupant automobile;
- Providing improved inter-modal domestic freight facilities and rail connections to the Port of Portland;
- Encouraging travel demand management strategies; and
- Implementing user fees.

The Willamette Valley Transportation Strategy is part of the Oregon Transportation Plan. It is presented as a guide for local, regional, and state government decision makers and private and public transportation providers.

3.1.44 Woodburn Interchange Refinement Plan (2000)

- *Determined that the existing interchange, albeit with significant construction, could provide 20 years of capacity – therefore the study only seriously considered revisions and adding capacity to the existing interchange and not a new interchange(s), consistent with ODOT's application of the requirements of the Oregon Highway Plan.*
- *Specifically did not consider a second interchange near Woodburn (see above).*
- *Specifically did not consider in detail the possibility of converting to a split-diamond interchange; the option was deemed impractical by ODOT before detailed analysis was conducted and not forwarded to the TAC for full consideration.*
- *Study only considered revision of the existing interchange – 3 forms: Standard diamond, tight diamond, and partial cloverleaf.*
- *Identifies capacity deficiencies at the current interchange and along Oregon 214 east of the interchange.*
- *Notes a high crash frequency at many points on Oregon 214 east of the interchange.*
- *Recommends replacing existing interchange with a partial cloverleaf (loop ramps for Oregon 214 traffic entering I-5, but not for I-5 traffic exiting to Oregon 214).*
- *Includes the statement: "To date, there has been no study done to demonstrate the value [or lack of value] to the state transportation network of a second interchange in north Marion County."*

3.2 TRANSPORTATION ISSUES

In addition to existing plans and studies, transportation issues were also compiled through public involvement and from County staff.

3.2.1 Transportation Issues Identified through Public Involvement

Public input (in the 1998 TSP process) was provided by citizens attending public open houses or responding to open house newsletters and by members of the Technical Advisory and Citizens Review Committees. A total of 240 comments were collected through this public involvement process. These comments were reviewed by County staff and the consulting firm of W&H Pacific and grouped into 10 main transportation- related categories. These categories are described below.

In many instances, comments consist of more than one transportation issue and overlap into two or more categories. For example, a comment for setting standards to limit the number of driveways along a section of road falls into both the "Access" category and the "Design Standards" category.

Access

A total of 21 comments were received that relate to transportation system access. In general, "access" pertains to the ability to enter or use the transportation system. Access to a transportation facility may be limited or denied due to physical conditions, such as roadway congestion, or policy requirements, such as the State's ability to limit direct access onto highways from private property. An example of a comment on access is the desire to enter the Interstate highway system from outlying areas. Access issues can also be site-specific problems, like where high traffic volumes make it difficult to enter or exit the roadway. (Comments that relate to access for sidewalks, transit, and bicycle lanes were placed under the "Alternative Transportation Modes" category.)

Safety

A total of 66 comments pertain to transportation safety. "Safety" is identified as an issue when there is an unacceptable risk of injury or loss of property. Safety problems may be general, like truck/bicycle conflicts, or site specific, such as the need for guardrail at a certain location. Locations with repeated accident occurrences indicate potential safety problems. Comments related to safety include all modes of travel.

Capacity

A total of 33 comments relate to transportation capacity. "Capacity" is identified as an issue when there is an unacceptable level of congestion, or when the transportation facility is insufficient to meet existing or future demands. Examples of comments related to capacity include construction of a potential new bridge across the Willamette River, installation of signals at congested intersections, and construction of additional lanes on congested roads.

Design Standards

A total of 41 comments relate to design standards. Generally, these comments involve improving roadway facilities to meet existing geometric design standards; evaluating and possibly changing

the existing standards to improve the operation of the roadway; and using uniform design standards among jurisdictions. Examples of comments pertaining to design standards include the need for paved shoulders on some roads, limiting access onto arterials, and wider shoulders for bicycle traffic.

Transportation System Connectivity

A total of 30 comments relate to transportation system connectivity. "Connectivity" is necessary to allow efficient travel from one location to another. Several of the comments received are specific to roadway projects, which have been identified previously, such as a new bridge crossing over the Willamette River or a new interchange on I-5. Other connectivity comments address constructing or improving roads around communities and connecting bicycle/pedestrian facilities.

Alternative Transportation Modes

A total of 69 comments relate to alternative transportation modes. "Alternative transportation" includes travel by bicycle, foot, transit, commuter rail, and telecommuting. Several comments indicate a need for county-wide transit service with park-and-ride facilities and the use of existing rail lines for commuter rail service.

Air/Water/Rail Transportation

A total of 32 comments relate to air, water, and rail (freight and non-commute passenger) transportation. Several comments pertain to safety problems at rail crossings, both at-grade and above-grade. Other comments indicate a general need for rail service, including retention of spurs serving industrial areas. Comments related to air service question the future use of airfields in Aurora and Gates, and the feasibility of scheduled passenger service from Salem.

Trucking

A total of 35 comments relate to trucking. Comments range from a general concern about moving goods from "farm to market", to more specific concerns, like recommending truck routes in certain areas. Several comments address conflicts between bicycles and trucks, and between trucks and peak hour traffic. A few comments suggest that the rural road classification and roadway geometrics may not be up to date with current trucking equipment (i.e., longer trailers require greater turning radius).

Land Use/Transportation Relationships

A total of 34 comments pertain to the relationship between land use and transportation. This category addresses the interaction between urban and rural land uses and traffic; the impact of roadway development and maintenance on the environment; the relationship between growth and the transportation system; and the impacts of transportation on the livability of communities.

Policy & Intergovernmental Issues

A total of 75 comments relate to policy and intergovernmental coordination. This general category covers a wide range of comments and suggests policy direction for the TSP. Examples of comments in this category include changing and enforcing speed limits, enforcing trucks to stop at weigh stations, coordinating standards and policies with other jurisdictions, and encouraging transportation demand management (TDM) policies.

3.2.2 Issues Identified by County Staff

County staff also identified issues for the TSP. Members from the Design, Surveying, Construction, Land Use, Traffic, and Planning Sections along with the Director of Public Works identified 206 transportation issues in the County. Most of these issues were site specific and the majority of issues involved some aspect of safety. Input by County staff provided a mix of site specific, technical issues to supplement the broad range of general issues from the public.

3.2.3 Summary of Transportation Issues

Once all of the comments were collected through the public involvement process and from County staff, site-specific issues were separated and evaluated by members of the planning team. These site-specific issues were grouped into the following categories:

Safety

A total of 49 issues pertain to safety. These issues involve sight distance, accidents, poor alignment, and bridge crossings. A number of safety issues also involve the need for intersection reconfiguration or traffic control.

Non-Safety

A total of 37 issues pertain to traffic control and intersection reconfiguration. Traffic control issues generally involve signals, left turn lanes, and changes to intersection control. Most of the reconfiguration issues involve "Y" intersections, skewed approaches to intersections, or confusing intersections.

Planned Improvements, Urban Issues, and Undocumented Issues

Four issues were identified that are already planned projects for 1997 or 1998. Another eight issues were identified in urban areas that involve traffic control or intersection reconfiguration and will not be included in this plan because of the plan's rural emphasis. A total of 44 issues were perceived problems rather than factual and no evidence could be found to support the notion that these locations actually present problems. These issues are considered undocumented issues for now and will be reviewed periodically to check for actual problems. Of these undocumented issues, 33 pertain to perceived safety issues, 8 involve perceived reconfiguration needs, and 3 involve perceived traffic control deficiencies.

Widenings

A total of 18 issues involve lane or shoulder widening (or both) on rural roads. Three other widening issues were identified in urban areas, but will not be addressed in this plan.

Bridges

Four rural bridges have sufficiency ratings under 50. Bridges with sufficiency ratings below 50 warrant rehabilitation or replacement and are considered issues for the County. Other bridge issues that present safety problems are included under "safety" issues.

Drainage

A total of 14 issues involve drainage problems. Some problems are due to widespread high water from flooding. Other problems are due to inadequate drainage that contributes to flooding of adjacent properties.

Corridor Studies

A total of 10 County corridors were identified as issues in need of study. These corridors are broken down into three groups: regional corridors, semi-regional corridors, and local corridors.

Special Studies

Three additional issues were identified as needing further study. These issues include: a second I-5 interchange near Woodburn, an interchange at Oregon 22/Cordon Rd, and a feasibility study for another bridge over the Willamette River.

A summary of transportation issues is provided in Appendix A and lists all of the site-specific issues identified through public involvement or by County staff. These issues provide the starting point for determining individual transportation improvement needs.

Non-site specific issues were also useful in developing the TSP. They were used in formulating goals and objectives; identifying deficiencies in existing policies and design standards; and formulating strategies for alternative transportation modes, especially public transportation.

The process developed the issues considered in the 1998 RTSP and many of these issues have since been corrected and other new issues have arisen.

CHAPTER 4: GOALS AND OBJECTIVES

During the development of the initial Rural Transportation System Plan (RTSP) in 1998, a mission statement and a set of goals and objectives were developed. They were based on public input and provided a starting point and framework for the transportation planning process. These goals and objectives have been slightly updated in this 2005 update to better reflect the current issues affecting our transportation system in Marion County. These goals and objectives will continue to be revisited as part of future updates to reflect new changes in the transportation planning process, issues shaping that process, and the impacts of growth on development and maintenance of the countywide transportation system.

4.1 MISSION STATEMENT

Develop a balanced, safe, multi-modal transportation system to accommodate planned growth, facilitate economic development, recognize fiscal reality, and maintain a high standard of livability and safety.

4.2 GOALS AND OBJECTIVES

Goal 1: Improve Transportation System Safety

Objective 1.1: Improve system safety for and between all modes of transportation.

Objective 1.2: Dedicate adequate resources to ensure that the transportation system is properly maintained and preserved.

Goal 2: Provide an Accessible, Efficient and Practical Transportation System Appropriate to Both Urban and Rural Areas Throughout the County

Objective 2.1: Improve mobility and access options to transportation facilities throughout Marion County for transportation system users.

Objective 2.2: Facilitate goods movement into and out of the area; increase freight (truck, rail, air and water) mobility and inter-modal transfer.

Objective 2.3: Facilitate shipping of goods by the most efficient and least-impacting means possible.

Objective 2.4: Address changing characteristics of trucking, aviation, agriculture and rail industries.

Objective 2.5: Facilitate system connections as needed to improve efficiency and access.

Goal 3: Provide Sufficient Transportation Capacity

Objective 3.1: Address existing priorities and projected growth.

Objective 3.2: Adequately provide for the transportation needs of residents, businesses, customers, and visitors.

Objective 3.3: Encourage and support actions that reduce demand on the transportation system.

Objective 3.4: Encourage and support actions that maximize the value and efficiency of the existing system.

Goal 4: Recognize Fiscal Reality

Objective 4.1: Facilitate best usage of available financial resources.

Objective 4.2: Be ready to use additional resources efficiently if they become available, and be able to show what benefit results from those resources.

Objective 4.3: Facilitate procurement of grant funding.

Objective 4.4: Recognize that, due to financial limitations, **not** all goals and objectives will be met to the ideal extent.

Goal 5: Work in Partnership with Communities to Address Community Needs and Values

Objective 5.1: Minimize adverse impact of the transportation system on quality of life in communities.

Objective 5.2: Facilitate regional through movement of goods and services while minimizing conflict between through movement and livability in central city areas.

Objective 5.3: Minimize adverse impact of the transportation system on quality of life and environment in rural areas.

Objective 5.4: Foster cooperation between the County and cities to address a wide variety of transportation issues.

Goal 6: Promote Alternative Modes of Transportation

Objective 6.1: Facilitate provision of opportunities for a variety of transportation options.

Objective 6.2: Reduce dependence on any one mode of transportation.

Objective 6.3: Facilitate and support improved connections between different modes.

Objective 6.4: Support land use planning strategies that facilitate efficient transportation system use and development.

Goal 7: Consider Land Use and Transportation Relationships

Objective 7.1: Integrate land use planning and transportation planning to manage and plan the transportation system.

Objective 7.2: Minimize detrimental effects of transportation improvements on rural land uses.

Objective 7.3: Ensure an environmentally responsible/ environmentally sound transportation system that minimizes adverse impacts on air and water.

Objective 7.4: Ensure transportation-related activities comply with clean air and water requirements and fish and wildlife habitat management regulations.

Objective 7.5: Protect established land uses including prime farmland, forestland, and other natural resources.

Goal 8: Address Transportation Policy Issues and Intergovernmental Coordination

Objective 8.1: Improve coordination with all affected jurisdictions to meet future transportation needs.

Objective 8.2: Facilitate development of coordinated transportation design standards.

Objective 8.3: Emphasize facilitation, rather than restriction/ regulation, of business.

Objective 8.4: Ensure cost-effective investment in transportation. Improvements should be fiscally responsible, economically efficient and realistic.

Objective 8.5: Comply with applicable Transportation Planning Rule requirements for rural transportation system planning.

Objective 8.6: Maintain an ongoing public involvement process.

Goal 9: Provide a Useful Plan Document

Objective 9.1: Accurately reflect the existing and future transportation systems, issues, and needs of Marion County.

Objective 9.2: Identify methods for funding recommended actions.

Objective 9.3: Provide clear planning direction.

Objective 9.4: Maintain and update a list of issues for further study.

Objective 9.5: Extend usable life of existing facilities; provide a maintenance element.

Objective 9.6: Provide for a periodic review and update of the Plan that allows for improvements to be made as circumstances change regarding transportation issues throughout the County.

CHAPTER 5: FACILITY INVENTORY AND CONDITIONS

This section provides a detailed inventory of the County's transportation system and a summary of its existing condition. This inventory has been updated from the 1998 Transportation System Plan (TSP) using 2002 and more recent data and serves as the baseline for the planning period for the 2005 TSP Update. The County's TSP covers the areas outside of the urban growth boundaries of incorporated cities. All rural County-maintained facilities have been inventoried for both physical and operational features. In addition, other forms of transportation, including transit, rail service, water service, and pipelines are included in this plan. In some cases, particularly with pipelines and other utilities, specific information is not included for security reasons.

5.1 ROADWAY INVENTORY

There are thousands of miles of public roadway within the boundaries of Marion County. These roads are under the jurisdiction of many different agencies including the State, the County, each of the 20 incorporated Cities, as well as the Forest Service, Bureau of Land Management, and the Oregon State Forestry Department. Of these roads, approximately 1130 miles are maintained by Marion County. Of this total mileage, approximately 140 miles lie within various urban growth boundaries, leaving 990 miles of rural County Roads. In addition, Marion County also has about 79 miles of local access roads that are public roadways, but under Oregon Revised Statutes, are not maintained by the County. In general, maintenance of these roads is the responsibility of adjacent property owners.

5.1.1 Functional Classification

Roadways are grouped into categories, called **functional classifications.** These classifications are based on the character of service that the roadway provides as part of the overall transportation system. The categories used by Marion County are based on the definitions found in the U.S. Department of Transportation document titled *Highway Functional Classification: Concepts, Criteria and Procedures, March 1989.* A summary of these classes and a brief definition can be found in **Table 5-1**. These classifications are designed to be applied to all levels of roadways including interstate freeways, state highways, county roads, and city streets. With permission from the Oregon Department of Transportation, the County has uniformly applied these definitions to both state highways and County roads. With regard to incorporated cities and adjacent counties, Marion County cannot specify what classification system will be used in their planning efforts. However, when comparing the functional class designations used by each of the cities and adjacent counties, it is apparent that all transitions are appropriate based on the guidelines suggested in the USDOT description of the functional classification system.

The importance of the functional class of a road is it assists the jurisdiction in determining how it will be managed, such as the level of maintenance or improvements, how traffic is controlled at its intersections, standards that will be used when the road is reconstructed or improved, the level of access and development activity that is allowed along its length, and the priority of funding improvements among many other competing projects.

Table 5-1

Rural Road Functional Classification Characteristics

Principal Arterial
- Continuous segments with trip length and travel density indicative of statewide or interstate travel; and
- Serve all of the large urban areas and most of the moderate sized cities.

Arterial
- Link cities, larger towns, and other major traffic generators; and provide interstate and inter-county service: and
- Spaced such that all developed areas of the region are within reasonable distance of an arterial; and
- Serve a higher travel density, trip length, and overall travel speed than collector and local systems.

Major Collector
- Provide service to larger towns not directly served by higher classed roads and to other traffic generators of equivalent intra-county importance (including parks, tourist attractions, significant resource areas, etc.); and
- Link these places with nearby towns and cities, or routes of higher classification; and
- Serve the more important intra-county travel corridors.

Minor Collector
- Spaced at intervals to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road; and
- Provide service to any remaining smaller communities and traffic generators; and
- Link locally important traffic generators with their local constituents.

Local
- Primarily provide access to adjacent lands; and
- Provide relatively short travel distances compared to higher classed facilities.

The original (1998) RTSP included a list of roadways and their functional classification. As part of this 2005 Update, some changes are being made as shown in **Table 5-2**, which better reflect the current and future function of each roadway.

Table 5-2
2005 Revisions to Functional Classification System
(Note: Road segments are listed generally from north to south)

Road	From	To	Previous Class	New Class
Arndt Rd	Butteville	Bents Rd	Major Collector	Minor Collector
Oregon 219	McKay Rd	Yamhill County	Arterial	Principal Arterial
Ehlen Rd / Yergen Rd / McKay Rd	Interstate 5	Oregon 219	Arterial	Principal Arterial
Boones Ferry Rd	Ehlen Rd	Arndt Rd	Minor Collector	Local
Boones Ferry Rd	Crosby Rd	Ehlen Rd	Major Collector	Minor Collector
French Prairie Rd	Oregon 219	McKay Rd	Major Collector	Minor Collector
Parr Rd	Butteville Rd	Woodburn UGB	Major Collector	Minor Collector
French Prairie Rd	River Rd	Oregon 219	Major Collector	Minor Collector
Marquam Rd / Drake Rd	Meridian Rd	Clackamas County	Local	Minor Collector
Quinaby Rd	River Rd NE	Oregon 99E	Local	Minor Collector
Silverton Rd	Salem UGB	Silverton UGB	Arterial	Principal Arterial
Lardon Rd	Cordon Rd	Howell Prairie Rd	Minor Collector	Local
Kaufman Rd	Howell Prairie Rd	Cascade Hwy	Minor Collector	Local
Center St	Cordon Rd	Hampden Ln	Major Collector	Minor Collector
Hampden Ln	Center St	Fruitland Rd	Major Collector	Minor Collector
Fruitland Rd	Hampden Ln	63rd Ave	Major Collector	Minor Collector
Skyline Rd	Vitae Springs Rd	Salem UGB	Arterial	Major Collector
Liberty Rd	Hylo Rd	Salem UGB	Arterial	Major Collector
Mill Creek Rd	Marion Rd	Aumsville UGB	Arterial	Major Collector
Mill Creek Rd	Aumsville UGB	Golf Club Rd	Arterial	Major Collector
West Stayton Rd	Shaff Rd	Aumsville UGB	Major Collector	Minor Collector
Cloverdale Rd	Parrish Gap Rd	Ridgeway Dr	Minor Collector	Local
Belden Dr	West Stayton Rd	Stayton Rd	Minor Collector	Local
West Stayton Rd	Stayton Rd	Shaff Rd	Major Collector	Minor Collector
Buena Vista Rd	Polk County	Sidney Rd	Local	Minor Collector
Talbot Rd	Interstate 5	Buena Vista Rd	Minor Collector	Major Collector

The updated functional classification is shown on the map in **Figure 5-1**. State Highways are included on the map at their estimated level of function. These functions are consistent with the State Highway classifications included in the 1999 Oregon Highway Plan and shown on **Figure 5-1a**. Some major roads within cities and urban areas have classifications shown based on the fact that the regional transportation system runs through these urban areas. However, these functional

classifications shown are not binding on these cities; refer to the appropriate city's TSP for information on their assignment. If a city expands its Urban Growth Boundary, the formerly rural roadways in that boundary expansion would then be reclassified by the appropriate city to reflect their planned urban usage. This may mean that current rural local roads in these expansion areas may become urban Collectors or Arterials in the future.

The Functional Classification for rural County Roads is adopted at the same time that the RTSP is adopted by the Board of Commissioners. **Table 5-3** provides a breakdown of the rural miles of County roadways by functional class, estimates for State Highways by Functional Class, and combined mileages and percentages.

Table 5-3
Rural Miles of Roads by Functional Class

CLASSIFICATION	COUNTY ROAD MILES	STATE HWY MILES	TOTAL MILES	% COUNTY ROAD MILES	% TOTAL
Principal Arterial	15	81	96	1.5 %	8.3 %
Arterial	74	37	111	7.5 %	9.6 %
Major Collector	114	44	158	11.5 %	13.7 %
Minor Collector	172	0	172	17.4 %	14.9 %
Local	615	0	615	62.1 %	53.4 %
TOTAL	990	162	1152	100 %	100 %

In addition, the Forest Service maintains its own classification of roads: primary routes, secondary routes, and low-standard roads. Primary routes function similarly to a collector, as they collect traffic from various recreation areas, campgrounds, and other sites as they progress toward the statewide highway system. Primary routes are sometimes used for longer trips, particularly of a tourist nature. Secondary routes and low-standard roads function as local roads, primarily providing access to local sites. There is one primary route in Marion County: Route 46 (also known as Breitenbush Road) runs to the northeast from Detroit, past many attractions in the Willamette and Mt. Hood National Forests, then north into Clackamas County after about 30 miles. It then runs generally to the northwest, eventually linking up with Oregon 224. There are hundreds of miles of Bureau of Land Management (BLM) and low-standard Forest Service roads, which primarily provide access to local areas; almost all of these roads are unpaved and likely to remain that way.

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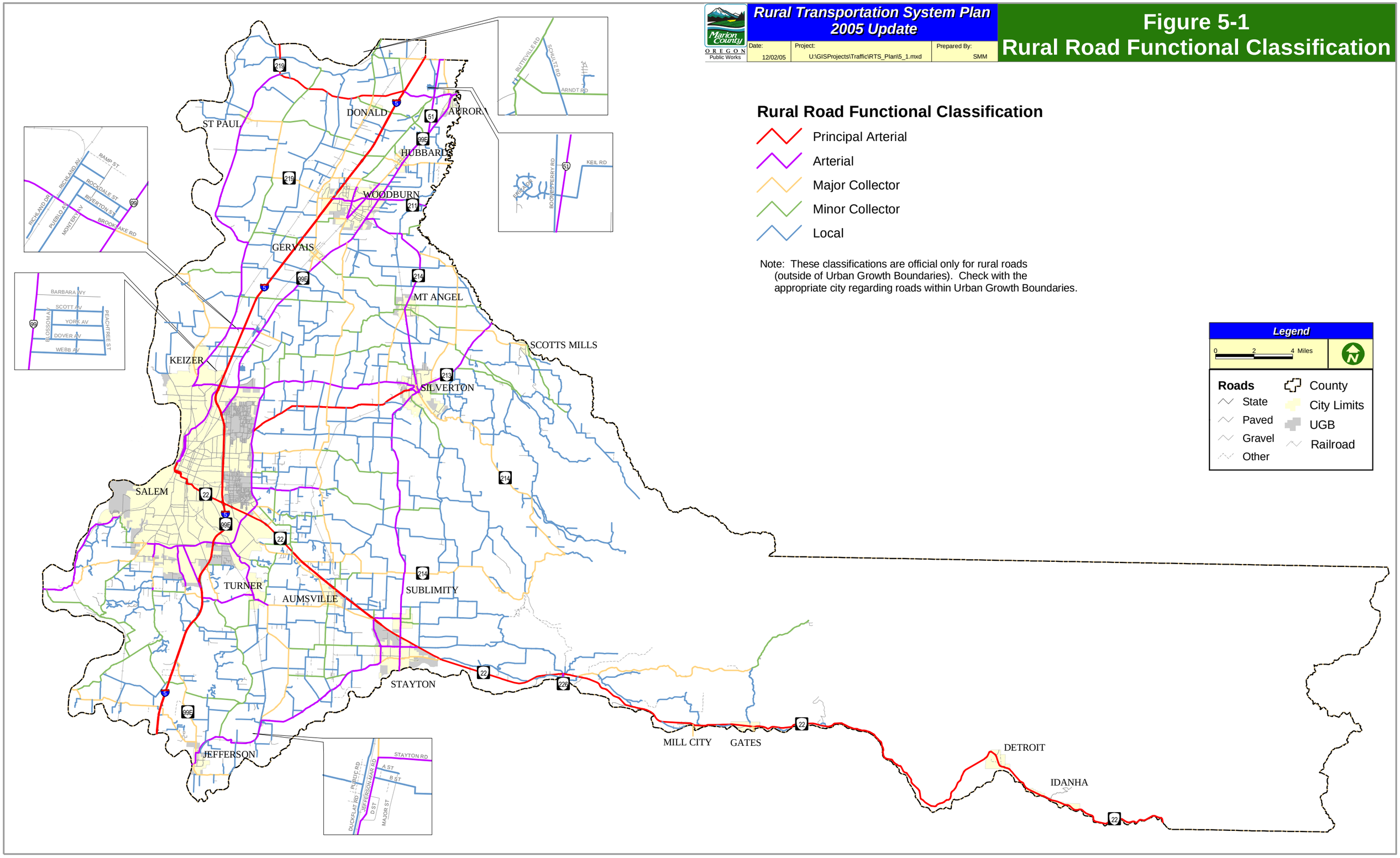
Figure 5-1
Rural Road Functional Classification

Rural Road Functional Classification

- Principal Arterial
- Arterial
- Major Collector
- Minor Collector
- Local

Note: These classifications are official only for rural roads (outside of Urban Growth Boundaries). Check with the appropriate city regarding roads within Urban Growth Boundaries.



Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB
- Railroad

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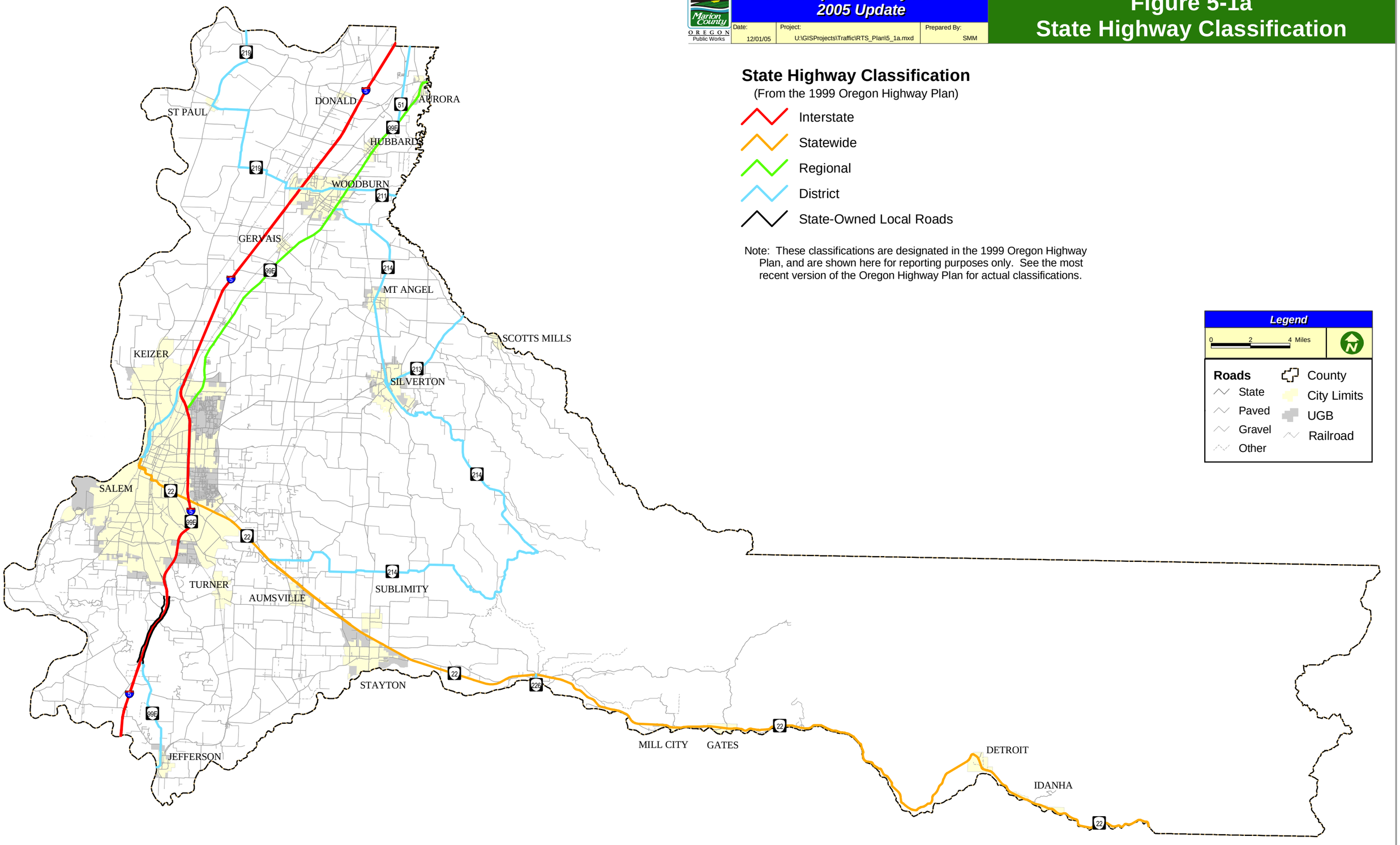
Figure 5-1a
State Highway Classification

State Highway Classification

(From the 1999 Oregon Highway Plan)

- Interstate
- Statewide
- Regional
- District
- State-Owned Local Roads

Note: These classifications are designated in the 1999 Oregon Highway Plan, and are shown here for reporting purposes only. See the most recent version of the Oregon Highway Plan for actual classifications.



Legend

0 2 4 Miles

N

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB
- Railroad

5.1.2 Physical Characteristics

This detailed inventory of County-maintained roads includes characteristics such as existing traffic volumes, surface type, pavement width, right-of-way width, pavement condition, and functional class (see **Appendix B**). This section provides a summary of the physical features that were evaluated for each roadway segment listed in the inventory.

Length of the segment and beginning and ending milepoints
Lengths were computed from the milepost system currently in place on the road network.

Number of travel lanes
This is the total number of through travel lanes on a segment regardless of the direction of travel flow.

Widths of the shoulders and travel surface
The total width of the actual travel surface was measured and the respective widths of the left and right shoulders were also recorded.

Surface type of the travel surface and shoulders
The surface type (paved or gravel) was recorded.

Width of the right-of-way (ROW Width)
Right-of-way widths vary considerably along a roadway and from one road to another. Accurate information is difficult to find due to the age of documentation and the number of right-of-way dedications that occurred on individual parcels over the last several years. The width recorded in the inventory is the best average figure that could be obtained for each segment. This information is used for planning purposes only and should not be used where a high level of accuracy is required. Consult the Marion County Surveyor's Office for official information.

Pavement condition
Marion County has been using a pavement management program since the late 1980s and found it very successful in managing our paved roads. It uses a pavement condition rating system with five categories: very good, good, fair, poor, and very poor. These general ratings are based on a Pavement Condition Index (PCI) that reflects the type, severity, and amount of pavement distress (such as cracking, potholes, etc). The PCI is continually updated and provides us with a rating of a section of pavement as it changes over time. **Figure 5-2** shows the existing pavement condition for Marion County roadways outside of urban areas. The breakdown of mileage in each of the classes of pavement condition is shown in **Table 5-4**. Also included in this table is the mileage of gravel-surfaced roads maintained by the County.

Table 5-4
Rural Road Surface Types and Conditions

SURFACE CONDITIONS	PAVEMENT CONDITION INDEX (PCI)	MILES	% OF TOTAL RURAL MILES
Paved Surfaces:			
Very Good	90 to 100	107	11%
Good	70 to 89	392	40%
Fair	50 to 69	199	20%
Poor	25 to 49	90	9.1%
Very Poor	1 to 24	5	0.5%
Gravel Surfaces:		197	20%
TOTAL		**990**	**100%**

Note: Pavement condition survey conducted in 2002.

Recognizing that arterials and collectors receive more use than lower-class roadways, separate tables are maintained for these facilities; this data is shown in **Table 5-5**:

Table 5-5
Pavement Condition for Arterials and Collectors

PAVEMENT CONDITION (pci)	ARTERIAL MILEAGE	ARTERIAL PERCENTAGE	COLLECTOR MILEAGE	COLLECTOR PERCENTAGE
Very Good (90 to 100)	6	5%	47	15%
Good (70 to 89)	74	63%	141	46%
Fair (50 to 69)	26	22%	90	29%
Poor (25 to 49)	11	10%	31	10%
Very Poor (1 to 24)	1	1%	0	0%

Functional class

The previous and current (2005 Update) functional classification for each segment was recorded as part of the inventory. The Functional Classifications of some roadways are being changed as part of this update. These changes are noted.

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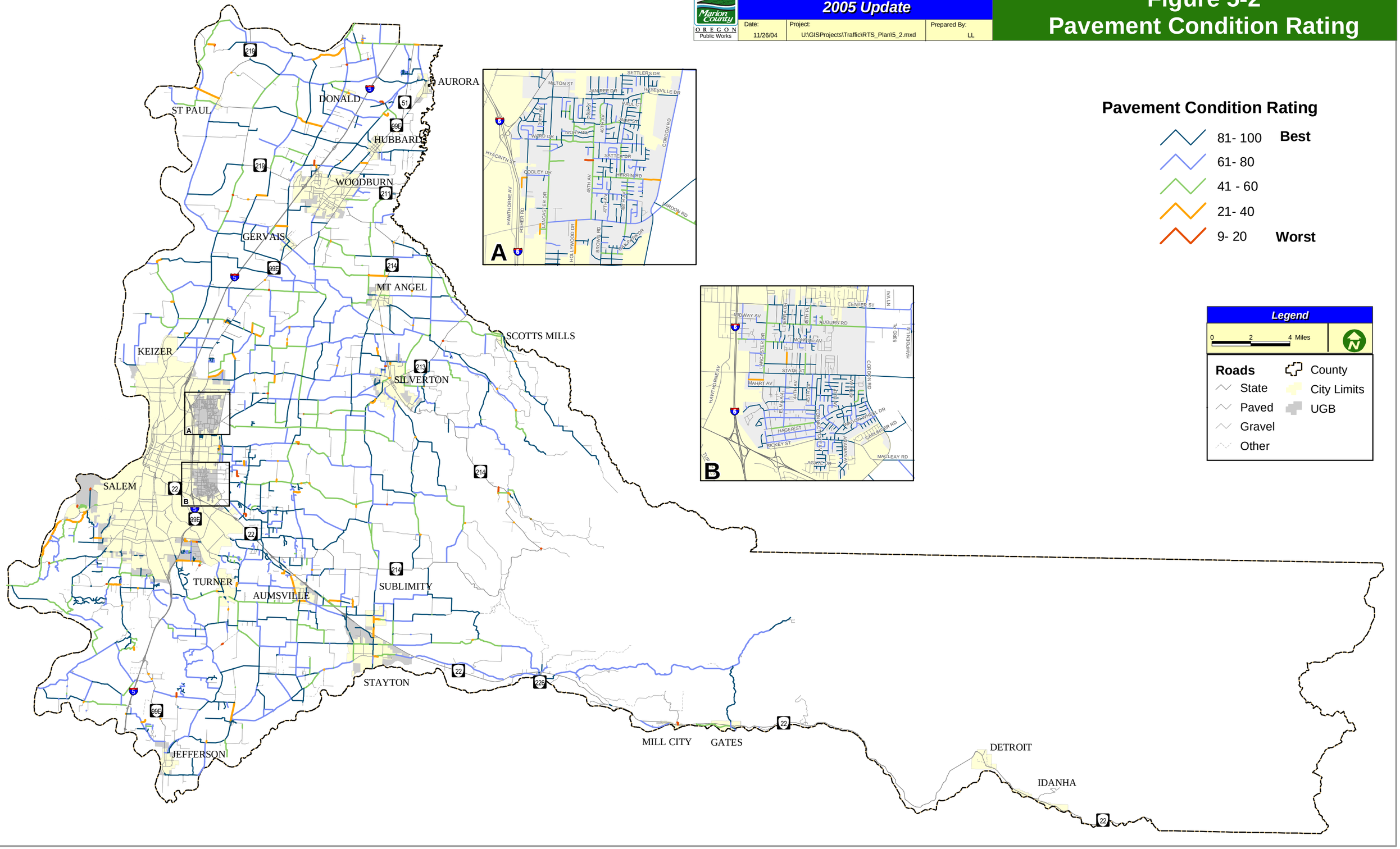
Figure 5-2
Pavement Condition Rating



5.1.3 Truck Routes

There are currently only two truck routes posted in rural Marion County. The first is on the north side of Silverton and includes Monitor Road, Hobart Road, and Mt. Angel Highway. The second connects with a route in Stayton and includes Golf Club Road, Wilco Road, and Shaff Road. Portions of both of these truck routes are inside the urban growth boundaries of these cities. Many cities have designated truck routes within their city. In addition to these posted routes, there are several unofficial routes that are used by truck traffic on a regular basis.

There are also rural locations where "No Through Trucks" prohibitions have been posted to address specific truck-related problems. These include one in the Silverton area (Quall Road, Forest Ridge Road, Madrona Heights Drive, Evans Valley Road, and Valley View Road); and in the northern part of the county in a small residential community (Cessna Street, Piper Street, and Mooney Avenue) between Boones Ferry Road and Wilsonville-Hubbard Hwy.

5.1.4 Bridges

There are 141 bridges maintained by Marion County. Of these, 6 are in urban areas and the remaining 135 are in rural areas. All bridges are thoroughly inspected every two years and given a sufficiency rating. The sufficiency rating is a number on a scale from zero to 100 that represents the overall condition of the structure. The higher the rating, the better the condition of the bridge. The bridges in Marion County span ratings from a low of 43.2 to a high of 100. These ratings are summarized in **Table 5-6**.

Table 5-6
County Bridge Sufficiency Ratings

SUFFICIENCY RATING RANGE	NUMBER OF BRIDGES	PERCENTAGE
90.1 to 100	41	29.1 %
80.1 to 90	34	24.1 %
70.1 to 80	34	24.1 %
60.1 to 70	18	12.8 %
50.1 to 60	9	6.4 %
40.1 to 50	5	3.6 %

Bridges are also assigned an operating rating. This rating is used to determine whether overweight trucks can receive a permit to cross the bridge and if any requirements will be placed on their use of the bridge. A complete inventory of County bridges is shown in **Appendix C**. Six bridges are presently restricted to certain maximum vehicle weights or dimensions. **Table 5-7** lists the weight and/or height restrictions of these bridges and shows the functional class of the roadway crossing that bridge.

Table 5-7
Restricted County Bridges

FACILITY	OVER	RESTRICTION	FUNCTIONAL CLASS
Gallon House Road	Abiqua Creek	Weight 20 Ton Height 14' 2" One Lane Bridge	Local
Mt Angel – Gervais Rd	Pudding River	20 to 39 Tons (Depending on Configuration)	Minor Collector
Jefferson-Marion Rd	SP Railroad	Weight 40 Ton	Arterial
Labish Center Road	Little Pudding River	Weight 40 Ton	Minor Collector
Rambler Drive	Little Pudding River	Weight 40 Ton	Local
River Rd S	Willamette River	Weight 40 Ton	Arterial

5.1.5 Other Road Restrictions

There are four other structures that place restrictions on County roads. These are railroad bridges that create height restrictions of 9' 4", 11' 0", 12' 3", and 12' 9". These structures are on Riverdale Road, Riverside Road, River Road S, and River Road S, respectively. All four are on the mainline owned by Burlington Northern-Sante Fe Railroad. In addition to height restrictions, these bridges create very sharp curves and narrow roadways at their undercrossings.

5.2 BICYCLE AND PEDESTRIAN FACILITIES

Due to the rural nature of most of the County, the majority of facilities outside the urban areas do not have bicycle and pedestrian facilities. Commuting along the rural County roadway system by bicycle is fairly rare due to large distances between population and employment centers.

However, Marion County has strived over the last several years to add paved shoulders to many of the County arterials to fill a combined role providing for safety shoulders along with creating areas for bicycle and pedestrian use. In order to extend the number of roadway miles that we place paved shoulder on, due to our limited funds, the County sometimes constructs three- or four-foot paved shoulders rather than the five- foot shoulders that are desirable for bicyclists. This approach has been very popular with cyclists and motorists alike because it is a good compromise between design ideals and cost of construction that maximizes the usefulness of our rural roads. Often, a three-foot shoulder can be relatively easily constructed while construction of a five- or six-foot shoulder would require extensive construction work to move utilities and roadside ditches. The locations of paved shoulders on the rural system are shown on **Figure 5-3**. In addition, one location where a designated bike facility exists in the rural area is also included. This particular facility, on Grim Road, serves a high school, middle school and

elementary school clustered on a half-mile segment of road. **Table 5-8** summarizes the number of miles of County rural roadway that have paved shoulders greater than 2.5 feet in width. Roughly 4 percent of our rural paved roads have shoulders four feet or wider, and almost 13 percent have shoulders 2.5 feet or wider. In recent years, limited resources have constricted our ability to add paved shoulders, and are likely to restrict our ability to add paved shoulders in the near future unless additional funding is located.

Table 5-8
Rural Paved Shoulder Mileage

FUNCTIONAL CLASS	PAVED SHOULDERS 2.5 TO 4 FEET WIDE	PAVED SHOULDERS 4 FEET AND WIDER	TOTAL MILES PAVED SHOULDERS
Arterial	41.5 mi	32.0 mi	73.5 mi
Major Collector	31.6 mi	0.0 mi	31.6 mi
Minor Collector	3.9 mi	0.0 mi	3.9 mi
Local	2.4 mi	0.2 mi	2.6 mi
TOTAL	**79.4 mi**	**32.2 mi**	**111.6 mi**

Sidewalks are even more limited in the rural areas than paved shoulders. Most efforts to add sidewalks and walkways are concentrated in the urban areas. In rural areas, sidewalks appear primarily in a small number of rural residential developments, such as mobile home villages and subdivisions, and in unincorporated communities such as Brooks and Monitor. They generally have been placed by developers only on those roads within the development and typically do not connect with facilities on the higher classed road network. Several pieces of sidewalk are identified on **Figure 5-3** and a detailed inventory can be found in **Appendix D**.

One element of bicycle use that has increased in recent years is recreational cycling, including organized rides and road races. The varied terrain, rural beauty, relatively low traffic volume, and well-maintained roads make this area a top attraction for cycling groups from around the state to hold their annual events. These events attract several thousand cyclists to the County each year as well as thousands of spectators and family members. Pedestrian activities tend to be more limited in scope, though recreational and fitness walks and runs are also very popular in the area.

The Oregon Parks and Recreation Department has designated the Willamette Valley Scenic Bikeway, a 130-mile route along existing roads from Champoeg State Park (in northern Marion County) to Eugene. From its starting point in Champoeg Park, the route follows Champoeg Road, Riverside Drive, Blanchet Road, River Road, Matheny Road, and Wheatland Road to Willamette Mission State Park, then crossing via the Wheatland Ferry into Yamhill County. An alternate route follows River Road from Salem to Independence and Riverside Road and Buena Vista Roads from Independence to the Buena Vista Ferry crossing into Polk County. Marion County portions of the route are shown on **Figure 5-3**.

5.3 TRAFFIC OPERATIONS

A description of traffic operations in the County consists of an inventory of traffic control devices and lane channelization, a survey of traffic volumes and levels-of-service, and a survey of accident locations.

5.3.1 Intersection Traffic Control and Lane Channelization

Intersection traffic control in rural Marion County includes traffic signals (mostly at intersections with state highways), overhead flashers, multi-way stops, two-way stops, and some uncontrolled intersections. **Figure 5-4** shows the location of these traffic control devices in the rural County.

5.3.2 Daily Traffic Volumes

Traffic volume data has been collected on Marion County roadways for several years. As a result, actual counts or estimates are available for all roads in the system. The data is typically collected via road tube, on weekdays, from May to October. The County is counted on a four-year cycle. In addition, vehicle classification counts are taken on most arterials and major collectors in the County and provide valuable data on road usage by different classes of vehicles from motorcycles to multi-axle truck configurations. The Oregon Department of Transportation also conducts regular traffic counts on State Highways. **Figure 5-5** illustrates the weekday daily traffic found on County Roads and State Highways.

5.3.3 Peak Hour Traffic Volumes

Peak hour turning movement counts were obtained in 1994 and 1996 for most major intersections in the County. These were supplemented for this update with many counts conducted in 2002. The large volume of data precludes including the turning movement count data in this document. However, it is available through the Public Works Department. This count information, along with traffic control and lane configuration detail, was used to evaluate how well those intersections are operating at present.

5.3.4 Capacity: Level-of-Service and Volume to Capacity Ratios

Capacity describes the ability of a transportation facility to carry a certain number of vehicles or people. It is an important tool that allows engineers and planners to determine what potential improvements are likely to become necessary. These improvements will vary, but include such things as adding travel or turning lanes, installing traffic signals, and planning new roadways to accommodate growth in traffic. The capacity of a roadway or intersection is specific to that location and traffic characteristics. It is also important to know the capacity of both a segment of roadway (i.e., between intersections) as well as its intersections, to fully assess the needs of the transportation system.

Level-Of-Service (LOS) is a concept that is used to measure the quality of flow on or through a facility. It attempts to grade the amount of delay that a motorist must experience while traveling through an intersection or the level of congestion on a segment of roadway. This delay includes such elements as travel time, number of stops, total amount of stopped delay, amount of time spent following slower vehicles, and impediments caused by other vehicles. The level of service (LOS) is designated by a letter grade from A to F where LOS A represents free-flowing traffic with little or no delay, and LOS F represents severe congestion. The actual process to determine LOS is quite detailed, and will be applied to road sections as capacity issues become significant. The Levels of Service calculated here are approximate planning-level calculations.

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Figure 5-3
Rural Bicycle and Pedestrian Facilities

Rural Bicycle and Pedestrian Facilities

- Designated Bike Lane
- Sidewalk
- Multi-Use Path
- Shoulders 2.5 Feet to 4 Feet Wide
- Shoulders Over 4 Feet Wide
- Willamette Valley Scenic Bikeway

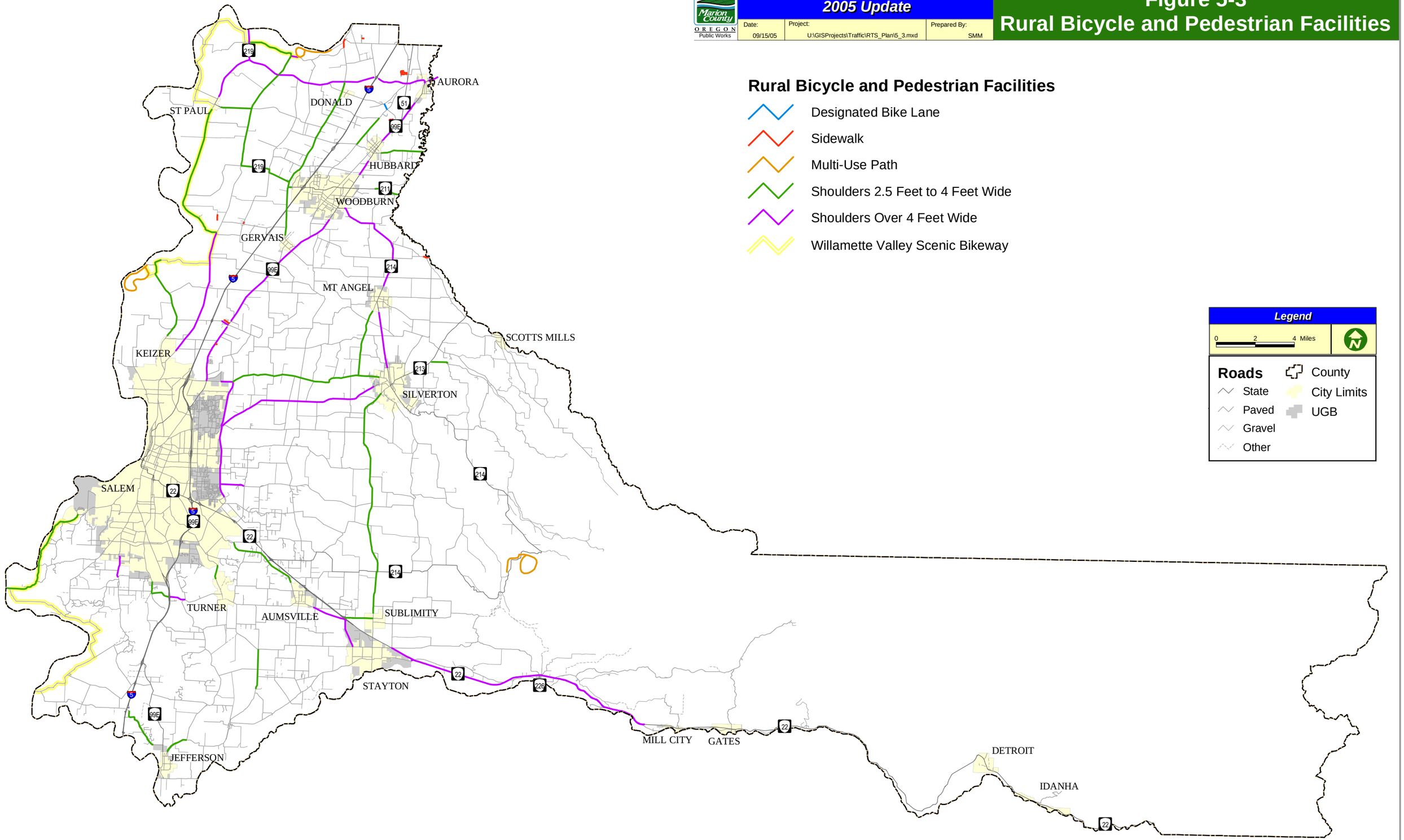

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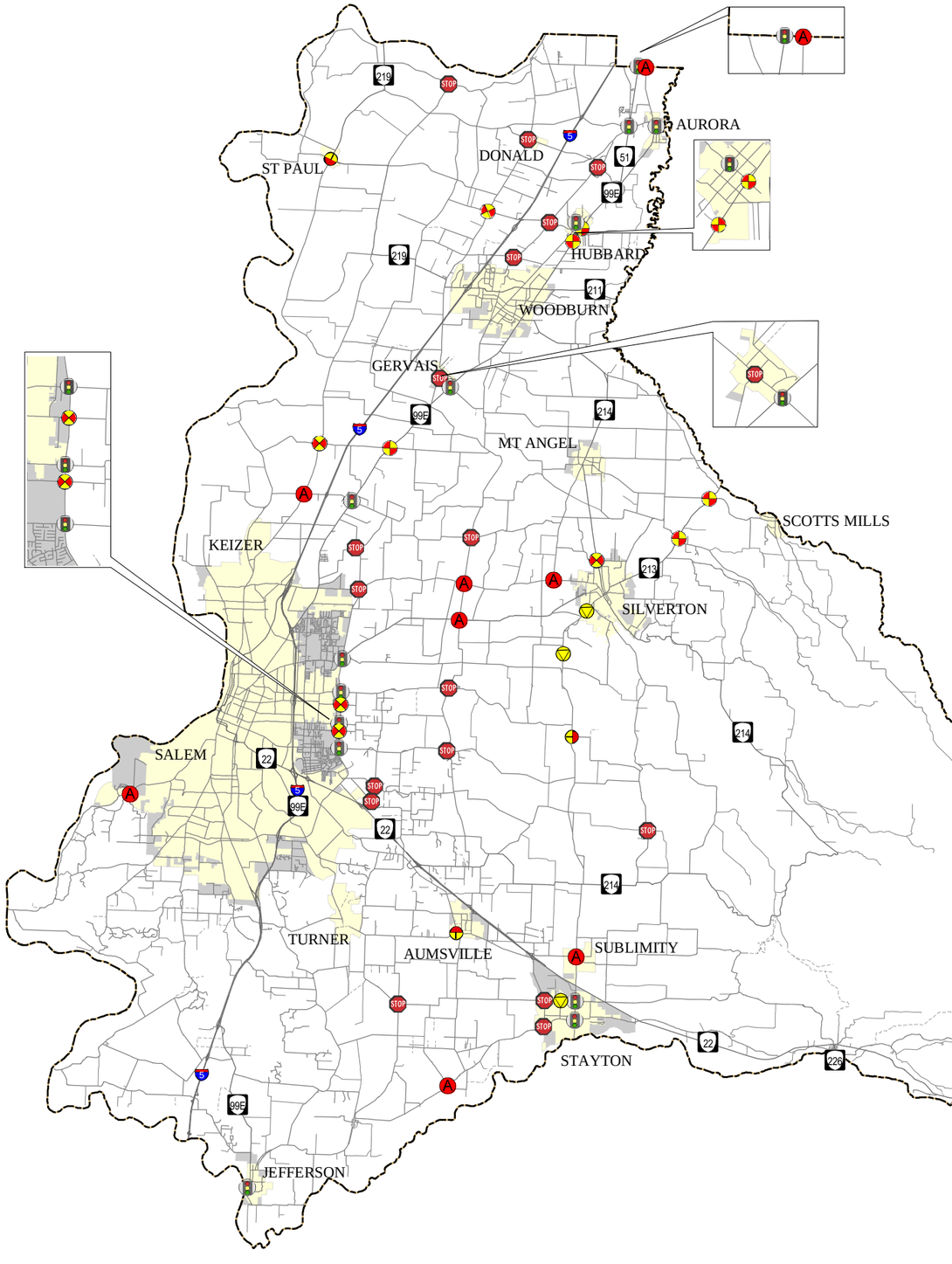
Figure 5-4
Intersection Traffic Control Devices



Intersection Traffic Control Devices

- All Way Stop
- All Way Stop with Red Flasher
- Traffic Signal
- Yellow/ Red Flasher; 3 Way
- Yellow/ Red Flasher; 4 Way
- Yellow Warning Flasher

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

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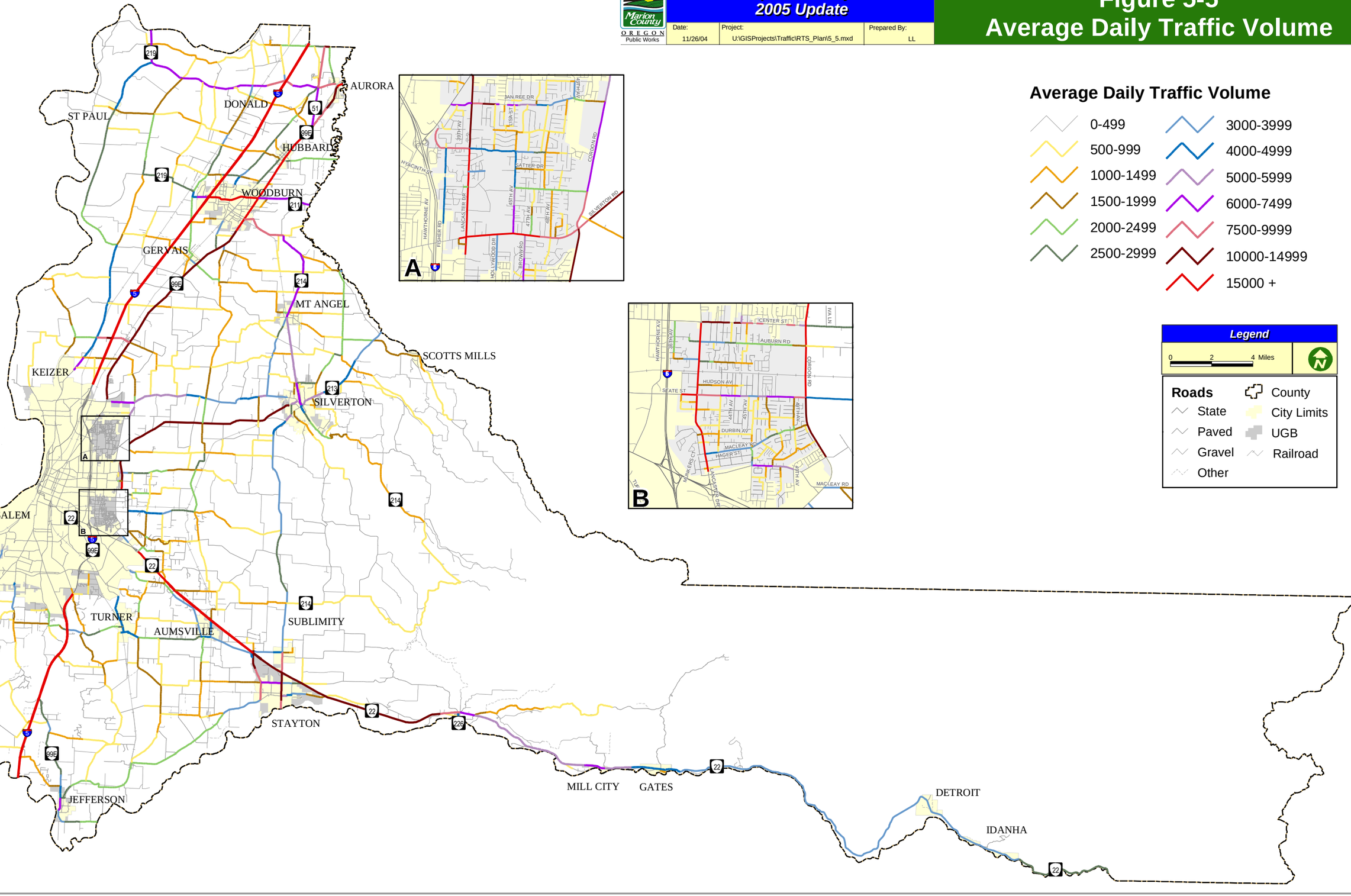
Figure 5-5
Average Daily Traffic Volume



Average Daily Traffic Volume

0-499	3000-3999
500-999	4000-4999
1000-1499	5000-5999
1500-1999	6000-7499
2000-2499	7500-9999
2500-2999	10000-14999
	15000 +

Legend

0 2 4 Miles

Roads

- State
- Paved
- Gravel
- Other
- County
- City Limits
- UGB
- Railroad

The **Volume-to-Capacity ratio (V/C)** is the ratio of the demand flow to the capacity of a given facility. Essentially, the V/C ratio represents the percentage of the available capacity of the facility that is being used by the traffic.

LOS and V/C are used to measure how well components of the transportation system are functioning. **Table 5-9** lists the range of volume-to-capacity ratios used to estimate the LOS (for two lane highway segments) and provides operational characteristics for each of the six levels-of-service. A thorough description of Level of Service concepts can be found in the Transportation Research Board's *Highway Capacity Manual, 2000* (or subsequent editions).

Table 5-9
Road Segment Level-of-Service Characteristics

LOS	APPROX. V/C	OPERATIONAL CHARACTERISTICS (FOR TWO-LANE ROADWAY)
LOS A	0.00 - 0.12	Motorists are able to drive at their desired speed. Without strict speed limit enforcement, average speeds would approach or exceed 60 mph. Drivers have opportunities to pass other motorists almost on demand. Almost no platoons (groups) of three or more vehicles are observed. Drivers would spend no more than 30 percent of the time following slower vehicles.
LOS B	0.13 - 0.24	Speeds of 55 mph or slightly higher are expected on level terrain. Passing opportunities needed to maintain desired speeds are still available although not as often as LOS A. Some platoons of three or more are observed. Drivers spend up to 45 percent of the time following slower vehicles.
LOS C	0.25 - 0.40	Average speed still exceeds 52 mph on level terrain. Passing starts to become difficult. Platoons begin to get longer or start to link up with one another. While traffic flow is stable, it is becoming susceptible to congestion due to turning traffic and slow-moving vehicles. Drivers are following up to 60 percent of the time.
LOS D	0.41 - 0.60	Traffic flow begins to become unstable although speeds of 50 mph can still be maintained under ideal conditions. Passing becomes extremely difficult. Platoon sizes of 5 to 10 vehicles are common. Turning vehicles or roadside distractions cause major shockwaves in the traffic stream. Drivers are following up to 75 percent of the time.
LOS E	0.61 - 0.90	Speeds will drop below 50 mph, even under ideal conditions. On segments with less than ideal conditions, average travel speeds will be slower, as low as 25 mph on sustained upgrades. Passing is virtually impossible. Platooning becomes intense when slower vehicles or other interruptions are encountered. Drivers are following more than 75 percent of the time.
LOS F	0.91 and above	Represents heavy congestion or breakdowns in traffic flow. Traffic demand exceeds capacity, with traffic volumes lower than capacity and traffic speeds below capacity speed. Drivers are virtually always stuck behind slower vehicles.

Note: LOS characteristics taken from *Transportation Research Board, Highway Capacity Manual, Special Report 209, 1994* for two-lane highway sections.

For the road segments in rural Marion County, LOS and V/C were calculated for the base year of 1995. These parameters have been recalculated to reflect 2003 conditions in this 2005 update and have been included in the roadway inventory (see **Appendix B**). With few exceptions, most segments of roadway in the rural areas operate acceptably with LOS B or better. The typical V/C ratios are well under 0.24, which indicates the facilities could easily carry more traffic. A total of 20.9 miles of road have LOS C and 4.6 miles have LOS D. No roadway segments had level-of-service worse than LOS D, although some are close. **Table 5-10** includes those roads that have LOS C or LOS D. The County considers LOS D or better to be acceptable for roadway segments in rural areas. It should be noted that the levels-of-service on the segments are based on peak hour volumes that have been estimated based on 24-hour volumes.

Table 5-10
Rural Roadway Segments with LOS C or LOS D

LOS C	SEGMENT	MILES
Brooklake Road	River Road to West of I-5	0.7
Brooklake Road	East of I-5 to Oregon 99E	0.6
Cascade Hwy	Stayton UGB to Sublimity UGB	0.9
Cordon Road	Silverton Road to Hayesville Road	1.4
Ehlen Road	Boones Ferry Road to Aurora City Limits	1.0
Ehlen/Yergen/McKay Roads	West of I-5 to Oregon 219	7.0
Golf Club Road	Oregon 22 to Stayton UGB	0.5
Silverton Road	Cordon Road to Silverton UGB	8.8
	TOTAL	**20.9**
LOS D	**SEGMENT**	**MILES**
Arndt Road	Wilsonville-Hubbard Hwy to Airport Road (Clackamas Co. Line)	0.3
Cordon Road	Salem City Limits (near Caplinger Rd.) to Silverton Road	3.7
Brooklake Road	Vicinity of I-5 interchange	0.3
Ehlen Road	Vicinity of I-5 Interchange	0.3
	TOTAL	**4.6**

LOS has also been calculated at 181 intersections throughout the County and the results are shown on **Figure 5-6**. Of the total number of locations examined, 43 were within urban areas and 138 were rural. **Table 5-11** summarizes the results for both urban and rural intersections. The LOS calculated for the 1998 TSP is reported here in most cases. However updated calculations based on 2002 data were completed for some selected intersections on county roads (particularly those intersections with higher traffic volumes). In rural areas, the County considers LOS D or better to be acceptable for signalized and four-way stop intersections and LOS E or better for other unsignalized intersections.

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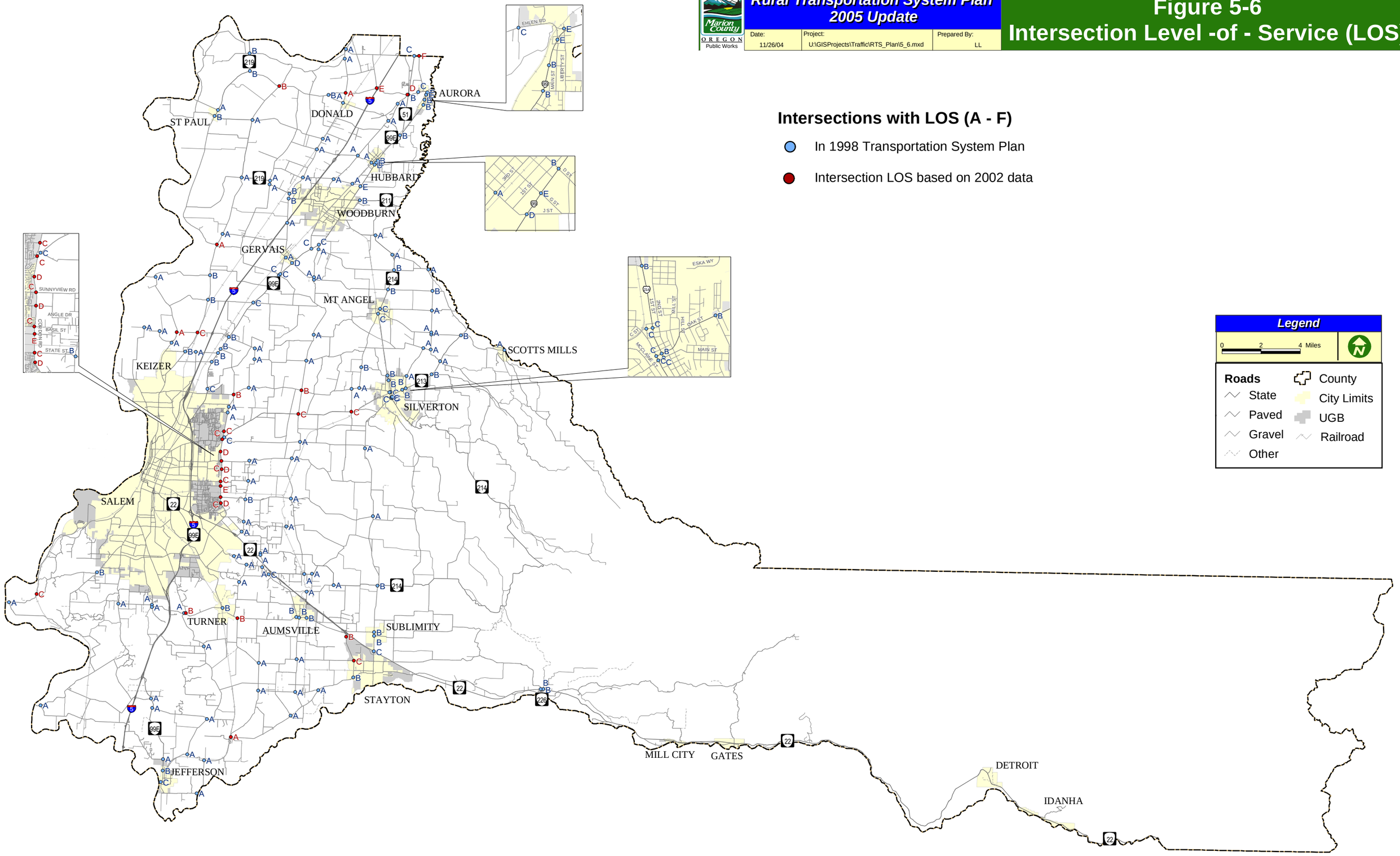
Figure 5-6
Intersection Level -of - Service (LOS)

Intersections with LOS (A - F)

- In 1998 Transportation System Plan
- Intersection LOS based on 2002 data



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0 2 4 Miles

Roads	County
State	City Limits
Paved	UGB
Gravel	Railroad
Other	

Table 5-11
Intersection Level-of-Service (LOS)

LOS	A	B	C	D	E	F
Urban	8	17	12	2	4	0
Rural	86	31	14	4	3	1

These numbers show that most major rural intersections perform very well with almost 84 percent operating at LOS A or B. Of the 22 rural locations that operate at LOS C or lower, seven involve State Highways. For the fifteen that are on the County system, nine are immediately adjacent to the Salem urban area (i.e., on Cordon Road). The one intersection at LOS F is the intersection of Arndt Road with Airport Road in the northeast corner of the county; the County is currently (2005) constructing a capacity improvement project at that location.

When comparing the LOS information from this 2005 update with the original 1998 TSP, the traffic situation (as described by LOS) is getting worse. Traffic volumes are increasing, in some cases quite rapidly, throughout rural Marion County. Some intersections are starting to exhibit capacity issues associated with these increasing traffic volumes. Recent funding levels have not been sufficient to 'keep up' with these increasing capacity issues, and the County has had to prioritize improvements to use its limited resources on the most pressing needs. If current rates of traffic volume growth continue and funding remains at current levels, we will see many more intersections with capacity issues. While intersections with LOS C or D are considered to meet standards, their performance is not as good the LOS A or B that residents and drivers have become accustomed to in many locations. Thus, if current traffic volume growth and transportation funding patterns continue, drivers can expect to encounter much more traffic and delay in their travels.

Table 5-12 shows eight rural intersections currently operating at LOS D or worse (up from four intersections in 1995). Although this is considered to be an acceptable level-of-service, LOS D is considered the point at which capacity-related issues begin to occur. Four of these operate at worse than LOS D (up from none in 1995). One, Arndt Road at Airport Road, is experiencing capacity issues beyond acceptable levels, and the County (along with Clackamas County and ODOT) is constructing a project to address traffic flow issues along the entire Arndt Road corridor.

Table 5-12
Intersections Operating at LOS D or worse

FACILITY	INTERSECTION	2002 LOS
Arndt Rd	Airport Rd	F
Cordon Rd	Auburn Rd	E
Ehlen Rd	Bents Rd	E
Silverton Rd	Howell Prairie Rd	E
Cordon Rd	Swegle Rd	D
Ehlen Rd	Boones Ferry Rd	D
Cordon Rd	Pennsylvania Ave	D
Cordon Rd	Carolina Ave	D

Note: All of these intersections are unsignalized.

5.3.5 Crash Experience

The frequency of crashes on or involving rural County Roads and State Highways was evaluated to help determine possible problem areas. The number of crashes that occurred at each intersection was counted for the three-year period from January 1, 2001 through Dec 31, 2003. Crash severity did not receive special consideration in this analysis, but is considered in more detail at specific locations when projects are identified and evaluated. **Table 5-13** provides a summary of the number of locations with three or more crashes and a crash rate greater than 0.75 crashes per million entering vehicles over that three-year period. Sixteen locations on rural County Roads had from three to five crashes, while seven locations had between six and nine crashes, and eight locations had ten or more crashes in that same time period. Six of these locations were on Cordon Road, which is to be expected since the traffic volumes on Cordon Road are much higher than most rural County Roads. Fifteen State Highway locations had ten or more crashes and are identified in **Table 5-13**. A map showing the locations with three or more crashes (and a crash rate higher than 0.75 crashes per million entering vehicles) in the study period is provided in **Figure 5-7**. Although not all of these locations could be improved by a safety project, this map provides a useful tool in identifying locations that should, at least, be evaluated for possible safety improvements. It should also be noted that improvements have already been made at some of these locations and that future accident data is necessary to evaluate the full benefits of these improvements.

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Figure 5-7
High Crash Frequency Locations

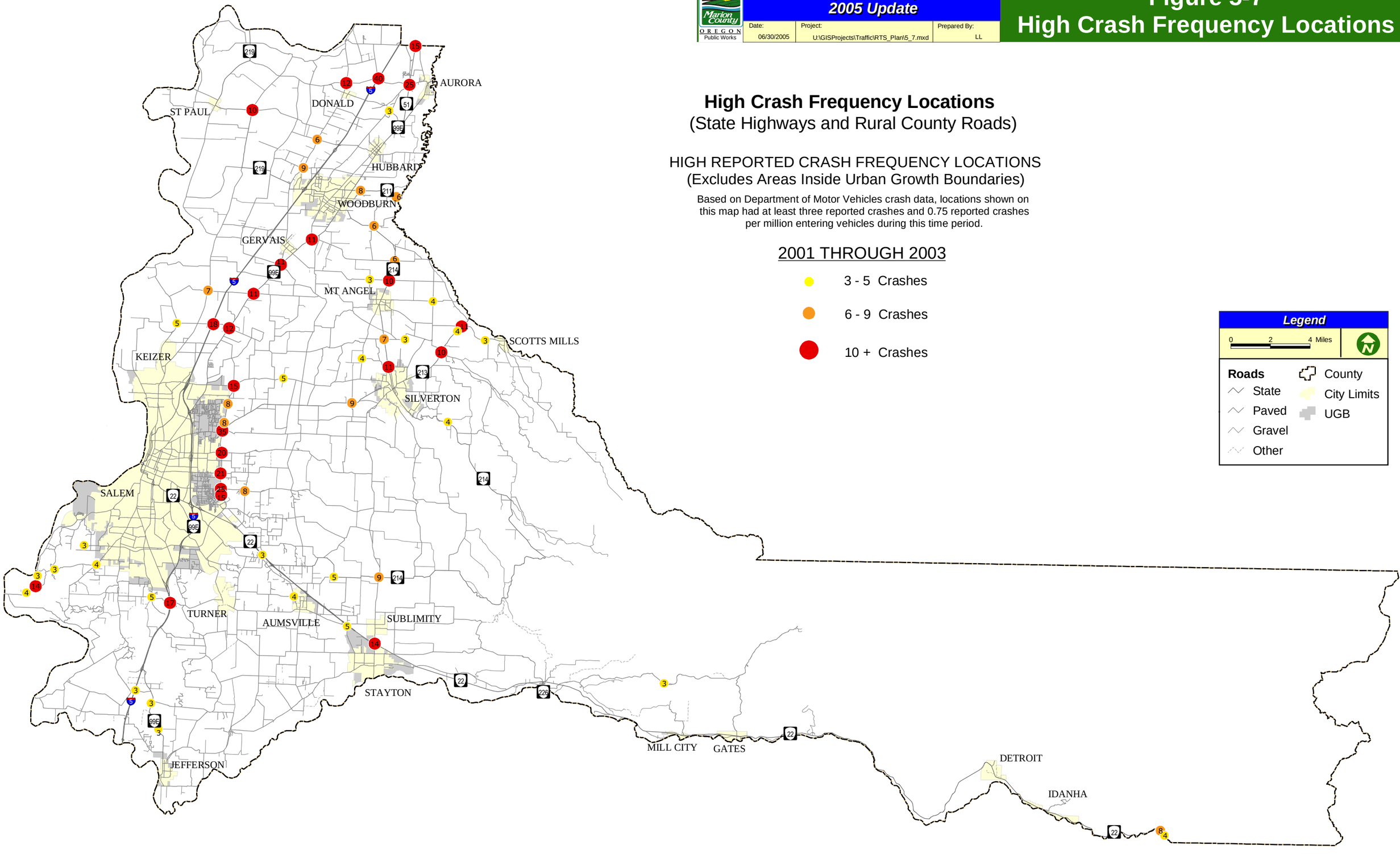
High Crash Frequency Locations
(State Highways and Rural County Roads)

HIGH REPORTED CRASH FREQUENCY LOCATIONS
(Excludes Areas Inside Urban Growth Boundaries)

Based on Department of Motor Vehicles crash data, locations shown on this map had at least three reported crashes and 0.75 reported crashes per million entering vehicles during this time period.

2001 THROUGH 2003

- 3 - 5 Crashes
- 6 - 9 Crashes
- 10 + Crashes



Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

Table 5-13
Rural County Road High Crash Frequency

NO. OF CRASHES (JAN 2001 - DEC 2003)	NO. OF LOCATIONS
3 to 5	16
6 to 9	7
10 or more	8
Locations with 10 or more crashes	Number of Crashes in Last 3 Years/ # of Crashes per million entering vehicles
Cordon Rd and Silverton Rd[1]	35 / 1.36
Cordon Rd and State St	25 / 0.99
Cordon Rd and Center St	21 / 0.96
Cordon Rd and Sunnyview Rd	20 / 0.93
Cordon Rd and Pennsylvania Ave	15 / 1.03
Cordon Rd and Hazelgreen Rd	15 / 1.36
River Rd S. and Orville Rd and BNRR Bridge	14 / 3.16
Ehlen Rd and Butteville Rd	12 / 1.28

[1] Signal modifications made in 2002.

Table 5-14
Rural State Highway High Crash Frequency

Note: many State Highway locations had more than three crashes in three years; however, since for many the rate of these crashes was lower than 0.75 per million entering vehicles, they are not included in this table

NO. OF CRASHES (JAN 1999 - DEC 2001)	NO. OF LOCATIONS
3 to 5	9
6 to 9	7
10 or more	15
Locations with 10 or more crashes	Number of Crashes in Last 3 Years/ # of Crashes per million entering vehicles
I-5 at Ehlen Rd Interchange	40 / 2.37
Wilsonville-Hubbard Hwy and Ehlen Rd and Boones Ferry Rd	25 / 1.29
I-5 at Brooks Interchange	18 / 0.77
I-5 at Delaney Rd Interchange	17 / 2.30
Wilsonville-Hubbard Hwy and Arndt Rd	15 / 0.83
Oregon 22 at Cascade Hwy Interchange	14 / 0.80
Oregon 99E and Brooklake Rd	12 / 0.76
Oregon 213 and Mt. Angel – Scotts Mills Rd	11 / 1.65
Oregon 214 and Hobart Rd	11 / 1.30
Oregon 99E and Checkerboard Rd	11 / 0.84
Oregon 99E and Waconda Rd	11 / 0.83
Oregon 99E and Boones Ferry Rd	11 / 0.77
Oregon 219 and St. Paul Hwy and French Prairie Rd	10 / 2.44
Oregon 213 and Abiqua Rd	10 / 1.81
Oregon 214 and Dominic Rd	10 / 1.21

5.3.6 Interstate 5 and Oregon 22 Detour Routes

Interstate 5, a major national and state transportation corridor, passes through Marion County. Average annual daily traffic volumes on this portion of I-5 range from 57,000 to 83,000. These traffic volumes are ten to twenty times higher than typical traffic volumes on County Arterials. Unfortunately, emergencies do occur that make it necessary to close I-5 and divert traffic onto other State Highways and County Roads. Detour routes are shown on **Figure 5-8.** When one of these detour routes is used, it is typically for relatively short time periods in which far more traffic temporarily uses these smaller roads than in normal conditions. This detouring of traffic often has a significant detrimental affect on communities surrounding the detour route during and immediately after the detour. When identifying, evaluating, and prioritizing potential projects, the use of it for a detour route is taken into consideration. Some minor improvements (such as signs, alternate signal timing, and gravel aprons to help trucks turn) have already been made on these routes because they serve as detour routes.

Detour routes have also been identified for Oregon 22, a major state highway of 'Statewide' significance. While these detours do not involve the magnitude of traffic that an I-5 detour would, they do cause times of unusually high traffic volume on the detour routes. Some of these detour routes are also used on a regular basis by trucks (classified as heavy haul loads), which must detour around weight-restricted bridges on Oregon 22. Currently, there are 3 bridges between Aumsville and Salem that are weight-restricted. Due to these restrictions, heavy haul traffic that would otherwise use Oregon 22 is using Aumsville Hwy, resulting in increased wear on this County Road.

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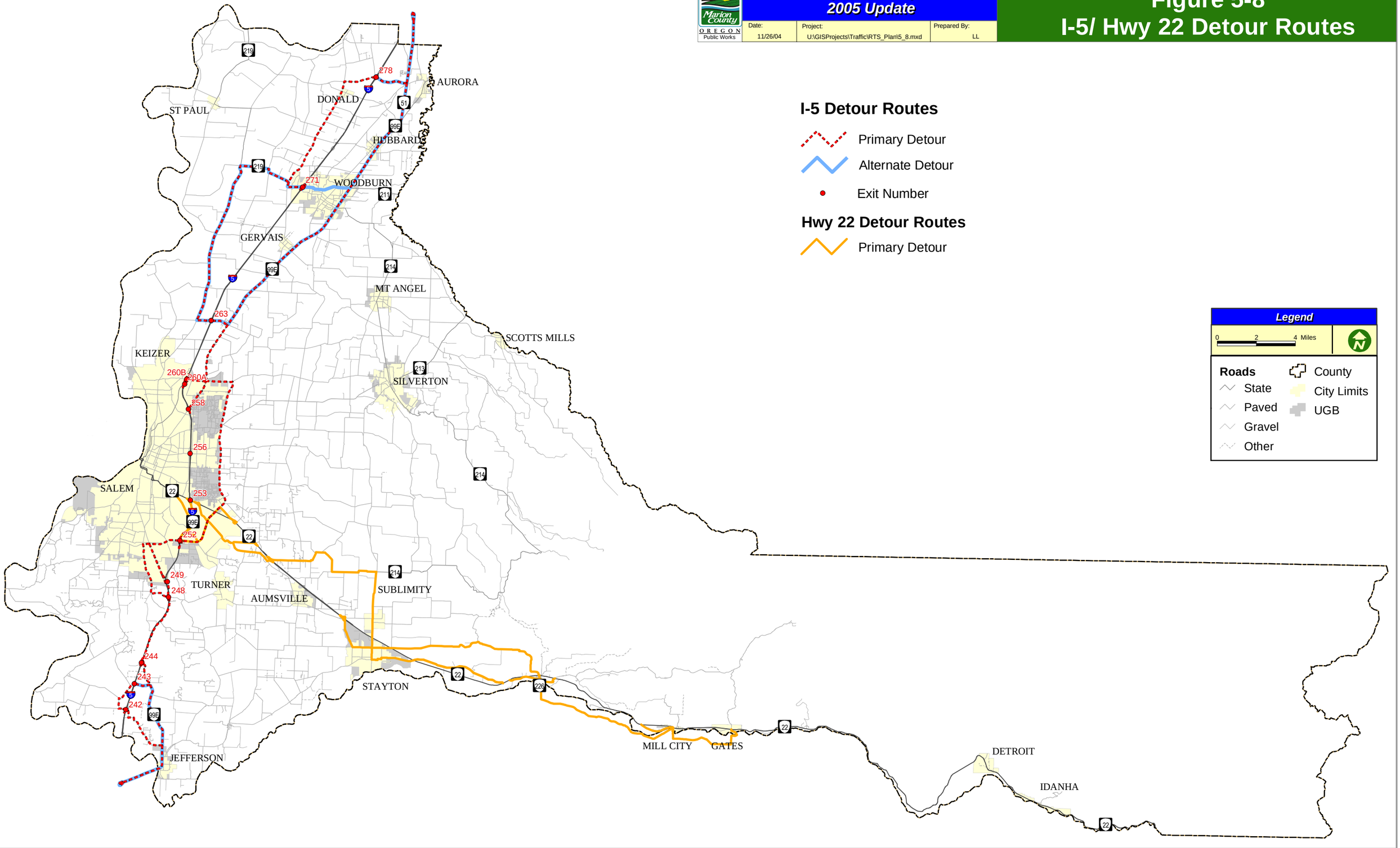
Figure 5-8
I-5/ Hwy 22 Detour Routes



I-5 Detour Routes

- Primary Detour
- Alternate Detour
- Exit Number

Hwy 22 Detour Routes

- Primary Detour

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

5.4 PUBLIC TRANSPORTATION PROVIDERS

In 1996, the Mid-Willamette Valley Council of Governments performed a study for Marion County with the purpose of making recommendations regarding a rural County public transportation system. Some updates have been made to that list to reflect changes that have occurred since then. **Table 5-15** lists transportation providers that have service within Marion County.

Table 5-15
Public Transportation Providers

INTER-CITY FIXED ROUTE SYSTEMS

Chemeketa Area Regional Transportation System
South Metro Area Rapid Transit

INTRA-CITY FIXED ROUTE SYSTEMS

Salem Area Mass Transit System
Woodburn Transit System (with paratransit dial-a-ride)

PARATRANSIT PROVIDERS

Wheels - Oregon Housing & Associated Services
Wheels of Joy (Dial-A-Ride in Sublimity/Stayton area)
Mt. Angel Training Center Program
Silverton Hospital Program (Dial-A-Ride for medical purposes only)
Twenty-three providers in Salem/Keizer area

OTHER PUBLIC TRANSPORTATION PROVIDERS

Betty's To and Fro Charter Bus
Evergreen Stage Lines Charter Bus
HUT Airport Shuttle
Valley Shuttle
Greyhound Bus Lines
Amtrak Rail Service
Amtrak Thruway Bus Service
Taxi Service in Woodburn, Silverton, and Salem/Keizer

Sources: Draft Marion County TSP Public Transportation Element by MWVCOG, 1996
SKATS Regional Transportation System Plan 2002 Update

In addition to these providers, two programs exist that promote public or shared transportation. The two existing programs are the Regional Rideshare Program (Mid-Valley Rideshare), administered by the City of Salem, and the Regional Park-and-Ride/Pool System.

The Regional Rideshare Program originated in 1975 and continues to serve potential ridesharing customers that live within a 60-mile radius of the Salem-Keizer urban area. One of the main resources this program provides is a matching service for individuals interested in carpools and/or vanpools. They also offer preferential parking in some cases, and assist organizations in developing their own rideshare

programs.

The Regional Park-and-Ride/Pool System is a collection of locations at which individuals can park their vehicles or be dropped off. From there, individuals can transfer to a transit system, carpool, or vanpool. In some instances, individuals can even bike or walk to their destination from a park-and-ride/pool location. These locations can be either designated with signs and various other amenities, or they may be very informal. Those located in, or close to, the Salem urban area may be served by transit whereas those in the rural areas tend to serve long distance commuters who participate in carpools or vanpools. These rural locations tend to be located near intersections with freeways or other major facilities that are easily accessed by commuting traffic.

In 1994, the Mid-Willamette Valley Council of Governments inventoried all the significant park-and-ride/pool facilities that serve the greater Salem area. Of the 16 sites inventoried, they found two rural designated sites and three rural informal sites in Marion County. The two designated sites are at Delaney Road at Interstate 5, and Cascade Highway at Oregon 22. The three informal sites include Brooklake Road at Interstate 5, Silver Falls Highway at Oregon 22, and Joseph Street at Oregon 22. The Joseph Street site was recently upgraded as part of a construction project on Oregon 22.

A third program that was proposed (in 1996) for a commuter shuttle program providing public transportation during the morning and afternoon peak hours from the Stayton/Sublimity area to Salem has since been established and is being operated by Chemeketa Area Regional Transportation System (CARTS).

5.4.1 CARTS (Chemeketa Area Regional Transportation System)

The Chemeketa Area Regional Transportation System (CARTS) is a recently-formed ORS 190 agency, assembled to provide for the regional planning and support of transportation services for elderly and/or disabled persons as well as the general public, in Marion, Polk, and Yamhill Counties. The Board is comprised of commissioners from each of the three counties and the Salem Area Transit District. The CARTS service is provided by the Wheels Community Transportation Program (Wheels), and began operating in 2000.

CARTS provides weekday public transit service connecting Salem with the cities of Aumsville, Gates, Gervais, Hubbard, Mt. Angel, Silverton, Stayton, Sublimity, Turner, and Woodburn in Marion County; Dallas, Independence, and Monmouth in Polk County; and Lyons and Mill City in Linn County. Annual rider ship is broken down by region in **Table 5-16**. The program has seen a 21.9% increase in ridership in the past fiscal year to a total ridership of 175,000 trips. These transit services are currently offered on fixed routes as shown on **Figure 5-9.**

Funding for the CARTS program comes from four different sources; Federal, State, Local and STF funds. The annual budget is approximately $1.25 million. The majority of the funding for service provided within the Salem area comes from local (Salem) sources. Primary funding for service in rural Marion County is from Federal and STF funds. Riders pay donations to use the system, which work on a monthly pass system that is $20 for adults and $10 for seniors. All day passes are $2 for adults and seniors and $1 for youths. Donations currently comprise about 3 percent of revenues (according to the Salem Area Transit District).

The major CARTS effort will initially focus on the establishment of a transportation brokerage for non-emergency medical trips in the area. A contract with the State of Oregon has been executed for the provision of these services. Salem Area Transit District is the designated service agent to establish the brokerage and staff the CARTS executive council. The longer-range goal of the Regional Transportation Enhancement Plan is to expand the scope of the brokerage to the coordination of all public transportation trips in the three-county area. (from SKATS 2002 RTSP)

Table 5-16
CARTS Ridership in 2000-1 and 2001-2

Route	2001-2002 Year to Date Trips	2000-2001 Year to Date Trips	Percentage Increase
Polk County Rt. 1	19,659	15,391	27.7%
Polk County Rt. 2	33,401	23,143	44.3%
Polk Dial-A-Ride	8,163	4,203	94.2%
Canyon Connecter	6,655	5,223	27.4%
City Loop	9,105	4,393	107.3%
North County Connector	9,694	9,514	1.9%
Salem/Silverton Shuttle	8,977	6,421	39.8%
Tri-City Connector	10,581	8,504	24.4%
Salem/Keizer Dial-A-Ride	68,913	66,860	3.1%
TOTAL	**175,148**	**143,652**	**21.9%**

5.4.2 SMART (South Metro Area Rapid Transit)

Service to Wilsonville, in Clackamas County, is provided by SMART (South Metro Area Rapid Transit), which runs two buses southbound in the peak periods and three buses northbound in the morning and two in the evening. Service is between Wilsonville and the Courthouse Square transit center. While this service is mainly targeted at the work commuter going between Wilsonville and Salem-Keizer, SMART does provide a link to the rest of the Portland Metropolitan Area with its service to the Barbur Transit Center in Portland, where it meets several Tri-Met bus routes. SAMTD (Salem Area Mass Transit District) is working with SMART and recently added four bus trips between Salem-Keizer and Wilsonville. The trips, which started in fiscal year 2002-3, target work trips in the opposite direction of the existing service. This effort is contingent on a JARC (Job Access Reverse Commute) grant. (from SKATS 2002 RTSP).

5.4.3 Public Rideshare Programs – Mid-Valley Rideshare

The Mid-Valley rideshare program is a transportation information, referral, and carpool matching service provided by the City of Salem Public Works Department, in conjunction with the Oregon Department of Transportation and the Federal Highway Administration. As quoted from their Annual Report:

"Mid-Valley Rideshare is here to promote alternatives to the single-occupant automobile as a way of reducing traffic congestion and air pollution. We are here to help individuals and employers in any way we can to find out about carpooling, vanpooling, walking, transit, and telecommuting. Individuals can receive customized matchlists based on their home and work locations, schedules, and driving preferences. City staff are also available to help employers with transportation and parking problems at their worksites. We can also provide assistance to people who are interested in commuting by bicycle. We have information on bicycling routes and free bike maps." They can be reached by calling (888) 323-POOL (outside the Salem area) or (503) 371-POOL.

This group affects the transportation system by facilitating more efficient movement of people; getting people where they want to go with less vehicle-trips. Some of the ways they do this include: matching people to carpool together, facilitating the formation of vanpools (many people commuting together), educating people about the benefits of more efficient transportation, providing for emergency rides home for carpoolers, and many other methods that help people out of their single-occupant vehicle.

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Figure 5-9
Transit Routes

Chemeketa Area Regional Transit System (CARTS)

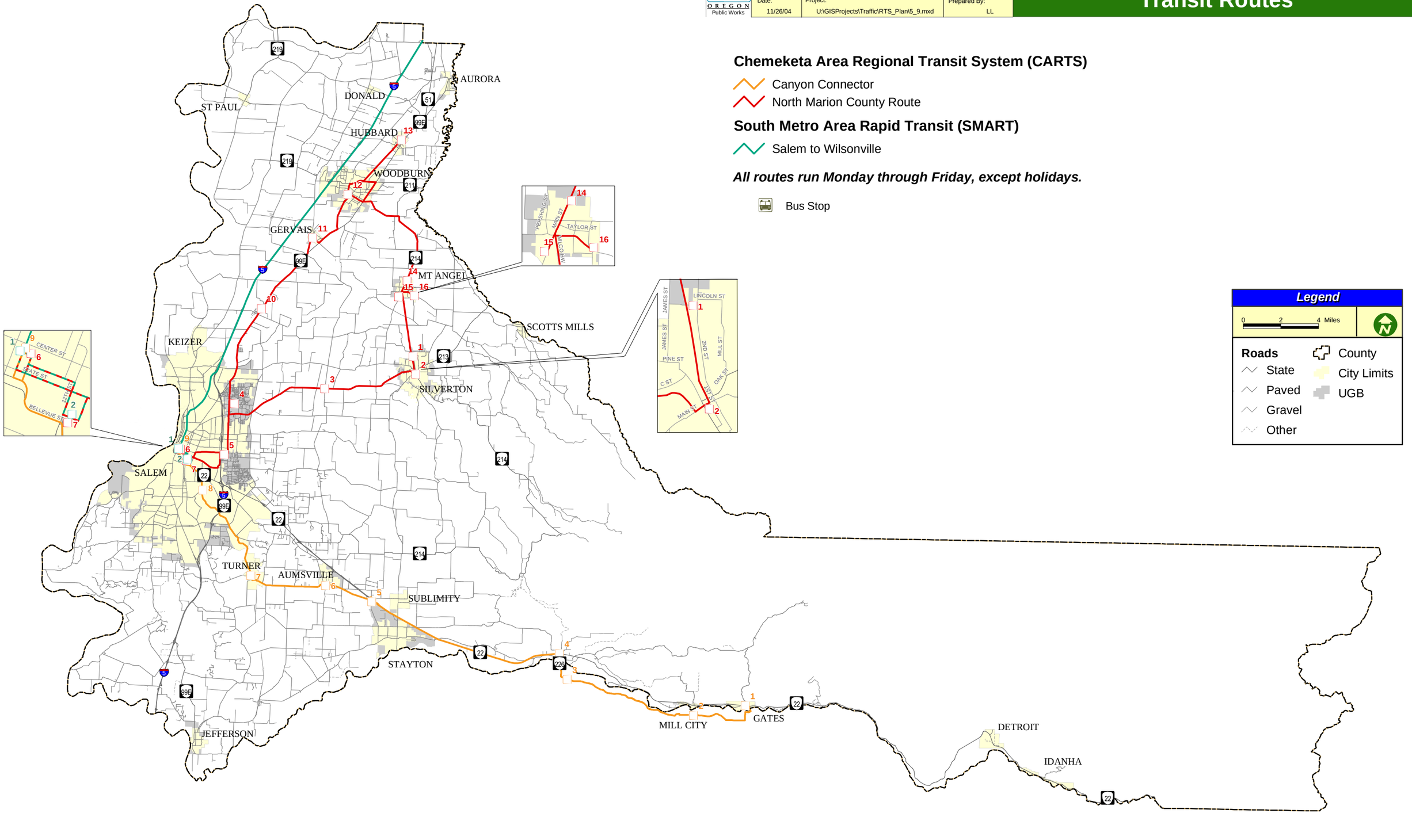
- Canyon Connector
- North Marion County Route

South Metro Area Rapid Transit (SMART)

- Salem to Wilsonville

All routes run Monday through Friday, except holidays.

Bus Stop



Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

5.5 RAIL SERVICE AND GRADE CROSSINGS

There are two major railroad mainlines and two short lines in Marion County. These lines and their ownership are shown on **Figure 5-10**. One of these mainlines is the primary north-south line along the West Coast, and is owned by Union Pacific Railroad (UPRR). This line runs south out of Portland along the east side of the Willamette River through Oregon City and Canby, has 45 miles in Marion County, passing through Aurora, Hubbard, Woodburn, Gervais, Salem, Turner, and Jefferson, and continues south through the Willamette Valley, crosses the Cascade Mountains, and continues south through California. It is very heavily used for freight shipments, with long freight trains running at frequent intervals. This line is primarily used for long-distance freight movement, as the high volume of rail traffic along this line severely reduces the feasibility of serving individual shippers along it. This rail line also carries three northbound and southbound Amtrak passenger trains daily. Amtrak also runs 'throughway' bus service along this corridor to supplement the frequency of service provided by the trains.

The second line has 42.4 miles in Marion County and is leased and operated by Portland & Western Railroad (which is owned by the Genessee & Wyoming Railroad). This line crosses the Willamette south of Wilsonville, enters Marion County near Butteville, then runs through Donald, west of Woodburn, through Keizer and Salem, then south along the Willamette River into Linn County. North of Perkins Road, the line is owned by Portland & Western Railroad; south of Perkins Road the line is owned by the BNSF Railway Company (formerly Burlington Northern – Santa Fe). This line is currently only used for freight movements, and this freight traffic is increasing. It is pertinent to note that commuter rail service is planned to start in 2008 on this rail line from Wilsonville (approx 3 miles north of Marion County) to Beaverton. A new spur line runs west from this line to the Morse Brothers gravel operation north of Keizer.

Willamette Valley Railway Company (WVRC) leases two short lines from Union Pacific Railroad (UPRR). The first short line runs south from the UPRR mainline in Woodburn, running 30.8 miles through Mt. Angel, Silverton, and Aumsville to the Norpac food-packaging plant in Stayton. Other shippers include Wilco Farm Supply and Trus-Joist in Stayton and Mt. Angel Beverage in Mt. Angel. In addition, WVRC has fielded inquiries from several other potential shippers. This line originally went south into Linn County but no tracks currently exist south of the point where the present track turns east into Stayton. This line currently operates in an 'excepted track' status, which minimizes maintenance costs, but means that passenger travel is not allowed on this line and freight movements must be made at very low speeds (maximum 10 mph). Freight activity on this line has been increasing in recent years, and is anticipated to continue increasing. Willamette Valley Railway is seeking to improve this line for faster track speeds, and is also considering the possibility of running excursion or passenger trains along this line.

The second short line is called the Geer Branch and runs 3.5 miles west off the first short line towards (but no longer into) the Salem urban area. A portion of this line inside the City of Salem has been abandoned and removed. This line is currently only used for rail car storage.

The 2001 Oregon Rail Plan has identified several funding needs on the Portland & Western and Willamette Valley Railways, to be met by the appropriate railroad, with possible assistance through grant funding. These needs include rail renewal, bridge repair, cross tie renewal, and turnout renewal on the Portland & Western line, and rail, cross tie, and turnout renewal on the Willamette Valley Railway. Completion of a substantial amount of these improvements would allow faster train speeds along these tracks, and could allow for passenger travel.

The opportunity exists for multimodal shipping terminals that would better connect rail with other modes of transportation (such as trucking) by allowing goods to be transferred between trains and trucks, and thus improve the efficiency of the Marion County freight transportation network.

With almost 122 miles of track, there are nearly 200 public rail crossings and numerous other private crossings within the boundaries of Marion County. Well over half of these public crossings are within the various urban areas or on State highways, leaving 66 crossings in the rural areas that are maintained by Marion County. **Table 5-17** summarizes the number of crossings on each line and the type of traffic control that is present at each. Each crossing is also identified on **Figure 5-10**.

Table 5-17
Traffic Control at Rural Railroad Crossings

TRAFFIC CONTROL	BNSF/P&W	UPRR	WVRR	TOTAL
Signals With Gates	7	11	2	20
Stop Signs	16	2	11	29
Crossbucks Only	1	0	9	10
Exempt	0	0	1	1
Ped-Only Crossing	0	1	0	1
Bridges	4	1	0	5
TOTAL	**28**	**16**	**23**	**66**

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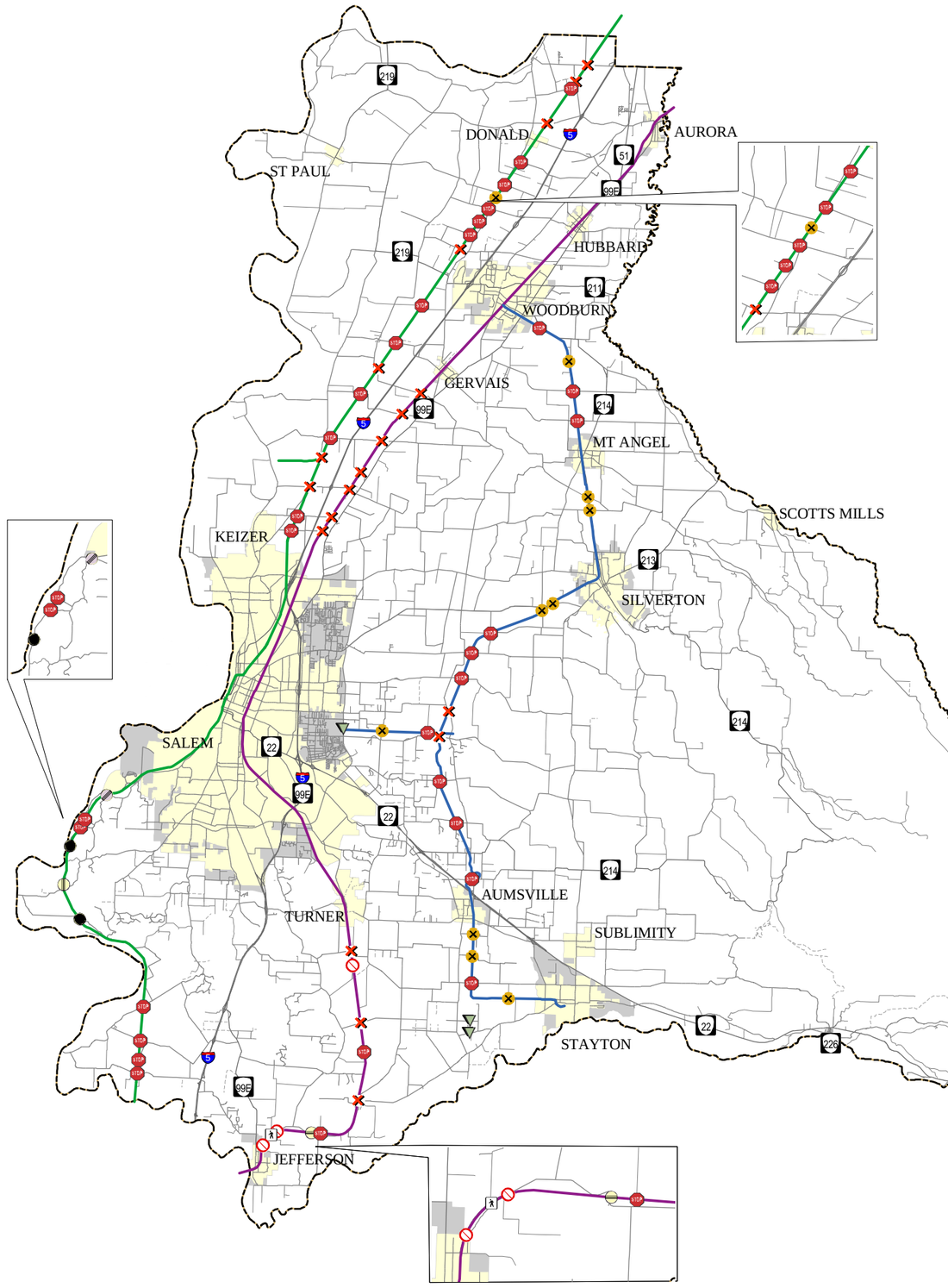
Figure 5-10
Railroad Crossing Treatments

Railroad Crossing Treatments

- Closed
- Exempt
- Signalized w/ Gates
- Overpass
- Pedestrian Crossing
- Stop Sign
- Crossbucks Only (Uncontrolled)

Railroads

- Portland and Western
- Union Pacific
- Willamette Valley Railroad Co.



Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

5.6 AIR SERVICE

Facilities in Marion County that accommodate air travel include two public airports (Salem and Aurora), fifteen private airstrips, one Army National Guard heliport, and seven private heliports. **Table 5-18** contains a full listing of these facilities along with their location, runway dimensions, surface type, number of based aircraft, and public/private status.

Table 5-18
Airports and Heliports in Marion County

AIRPORT / HELIPORT	LOCATION	RUNWAY DIMENSIONS	RUNWAY SURFACE	PUBLIC / PRIVATE	# OF AIRCRAFT
Army National Guard Heliport	East Side of McNary Field	NA	Asphalt	Private	25
Art Brandt Airport	2 MI N of Jefferson	2000' x 80'	Turf	Private	0
Aurora State Airport	1 MI NW of Aurora	5004' x 100'	Asphalt	Public	387
Basl Hill Farms Airstrip	6 MI NE of Stayton	2000' x 50'	Turf	Private	0
Davidson Field Airport	6 MI NW of Jefferson	2500' x 100'	Turf	Private	4
Elkins Heliport	5 MI S of Salem	50' x 50'	Turf	Private	1
Finney Lake Airport	10 MI N of Salem	2200' x 100'	Turf	Private	1
Flying E Aerodrome	3 MI W of Aumsville	2300' x 45'	Turf	Private	2
Gilmour Agricultural Airport	5 MI NW of Jefferson	1800' x 60'	Turf	Private	3
Harchenko Industrial Airport	2 MI N of Brooks	2290' x 75'	Asph-Gravel	Private	8
Hatch Airport	4 MI SW of Stayton	2500' x 50'	Gravel	Private	4
Hollin Airport	3 MI NE of Brooks	1750' x 80'	Turf	Private	1
Iron Crown Airport	3.5 MI SE of Silverton	2000' x 50'	Turf	Private	1
Landsem Air Field Airport	6 MI NE of Salem	2000' x 70'	Turf	Private	8
McGee Airport	2 MI W of Donald	1900' x 60'	Turf	Private	1
PGE Salem Heliport	N edge of Salem	48' x 48'	Asphalt	Private	0
Reforestation Services Heliport	S Edge of Salem	100' x 40'	Gravel	Private	5
Salem Municipal-McNary Field	SE Edge of Salem	5811' x 150	Asphalt	Public	205
Santiam Memorial Hospital Heliport	1 MI NE of Stayton	75' x 75'	Asphalt	Private	0
Smith Private Airport	1 MI S of Brooks	2500' x 60'	Turf	Private	0
South Hill Heliport	1 MI S of Brooks	60' x 60'	Asphalt	Private	1
Stuart's Airport	6 MI S of Salem	1000' x 30'	Turf	Private	1
Wagoner Airport	7 MI S of Salem	800' x 75'	Turf	Private	0
Wenger's Flying W Airport	5 MI NE of Salem	1500' x 30'	Turf	Private	3
Weyerhaeuser-Jefferson Heliport	6 MI E of Jefferson	112' x 100'	Gravel	Private	0

5.7 WATER TRANSPORTATION

The Willamette River, along the west boundary of Marion County, is the only waterway considered, or potentially, navigable in or adjacent to the County. The County has approximately 66 miles of frontage on the Willamette. The current regulatory status of the Willamette is an authorized six-foot channel of unspecified width extending from Oregon City to the mouth of the Santiam River. All of the County's frontage lies within this section. While the authorized channel indicates the potential for navigability, this channel has not been maintained for quite some time. Dredging ceased many years ago because its cost was greater than the resulting benefit. Extensive additional sedimentation has occurred since then, making dredging even more costly. Thus, while the potential does exist for the Willamette to be used for freight and passenger transportation, such navigability is not likely to be maintained by a government agency.

During the 1970s, waterborne commerce on the Willamette River between Portland and the Yamhill River (mile 56, just south of Newberg) increased, particularly below Oregon City, while traffic above the Yamhill River (such as towards the Salem area) decreased significantly. As a result, in 1973, the U.S. Army Corps of Engineers reduced dredging activity above the Yamhill River to minimal maintenance dredging and commercial traffic has not moved above the Yamhill River since that time. There has been no maintenance dredging above the Yamhill River since 1977. There are presently no immediate plans to use this portion of the Willamette River for commercial navigation, although there is an existing authorized Federal Navigation Channel extending as far as Corvallis. However, waterborne commerce on the Willamette below the Yamhill subsequently decreased, and is virtually nonexistent today.

A U.S. Army Corps of Engineers study was conducted in 1979 to determine the feasibility of maintaining a 3.5-foot deep channel from the Yamhill River to Corvallis. The annual cost of this dredging would be $1.2 million (1979 dollars), and it was determined that the project would not produce a net national benefit. The lack of clamoring by potential shippers for maintenance of such a channel reinforces the lack of economic feasibility of this channel maintenance. Environmental concerns are also a factor.

However, the possibility of waterborne freight and passenger movement on the Willamette does exist. It is possible that, during the timeframe of this plan, one or several commercial operations may become interested in the economic benefits that barge transportation offers. It is also possible that one or several commercial operations may become interested in operating excursion boats on large portions of the Willamette. It is possible that these economic benefits and opportunities may outweigh the costs of dredging such that maintaining a channel on part of the Willamette along Marion County becomes cost effective for them. Marion County would be supportive of such efforts to privately fund channel maintenance, provided environmental and other issues can be reasonably satisfied.

While there are shoals (portions of shallow water) and bars that block vessels during low water times (typically during the peak summer boating season), portions of the river between these bars are navigable. A sternwheeler excursion boat, the Willamette Queen, operates lunch, dinner, and sightseeing cruises in the vicinity of Salem. These cruises operate between Keizer (approx. river mile 81) and Eola (Western edge of West Salem, approx. river mile 88). Extensive recreational use of the river occurs near the various launching ramps and docks available at either side. However, the existence of shoaling and gravel bars makes use of the Willamette difficult for extended trips, such as those trips that would be necessary for freight transport to be feasible. Vessels (such as the excursion boat) can be brought upstream and/or sent downstream during the high water times that typically occur during the winter. However, since shoaling

precludes long-distance travel by these vessels during most of the peak summer boating season, they sometimes must wait for a few months if repairs become necessary.

Construction of dams upstream has been effective for flood control, but limits the natural flow of spring floodwater that would naturally flush accumulated sediment out of the channel. While it is possible to move boats when flow levels are high, this is not a dependable mode of travel. Any dredging done to accomplish the opening of a channel would likely need to be repeated on a yearly basis as sediment accumulates. Thus, dredging would be quite costly to maintain, and these costs would likely be compounded by environmental impacts and issues that would need to be dealt with. At this time, dredging would not be an efficient use of County funds.

5.7.1 Ferries

Waterway crossings into the County consist of two ferries that provide shuttle service to the public: the Wheatland Ferry and the Buena Vista Ferry. **Table 5-19** describes each of these ferries**.**

Table 5-19
Marion County Ferries

OPERATION	WHEATLAND FERRY	BUENA VISTA FERRY
Operation:	360 days of the year (closed on Christmas and Thanksgiving)	April to October
Hours:	Daily: 5:30 am to 9:45 pm	Wed-Fri: 7:00 am to 5:00 pm Sat-Sun: 9:00 am to 7:00 pm
Capacity:	9 cars - 80,000 lbs max	4 vehicles - 60,000 lbs max
Crossing Time (roundtrip):	10 min	10-15 min

The Wheatland Ferry is the larger of the two ferries and provides service to and from rural Yamhill County. It is mutually owned by Marion and Yamhill Counties but is operated by Marion County. It crosses the Willamette River and is located at the end of Matheny Road approximately five miles north of the City of Keizer. The ferry is operated by two on-board electric motors powered by a 100 kW diesel generator. The ferry is also attached to a steel cable system overhead to keep the ferry in its intended path. The ferry operates daily for most of the year. It does not operate on Christmas day and Thanksgiving Day, closes for a number of days in the winter due to high water, and is also sometimes closed due to weather conditions or maintenance requirements. The capacity is nine cars and 50 passengers per trip. Annual ridership of the ferry is approximately 225,000 vehicles and a small number of cyclists and foot passengers.

The Buena Vista Ferry, in southwest Marion County, provides service to and from rural Polk County south of the town of Independence. It also crosses the Willamette River and is located at the end of Buena Vista Road. The ferry is operated by on-board electric motors powered by a

diesel generator. This ferry is also attached to a steel cable system to keep the ferry on an appropriate path. The Buena Vista Ferry has significantly lower vehicle use than the Wheatland Ferry and typically operates Wednesday through Sunday from April to October. Its operation is also susceptible to the impacts of the weather, river, and maintenance operations. The capacity of the Buena Vista Ferry is four cars and 28 passengers. Annual ridership is approximately 8,500 vehicles and a very small number of cyclists and pedestrians. The Oregon Department of Transportation provides some assistance to keep the ferry operating to serve farms in the local area.

There is at least one privately operated, low-budget ferry that transports goods and people to an island in the river near Newberg. There are also several powerlines and pipelines crossing the river at various locations.

5.8 PIPELINE SERVICE

There are two major pipelines running through Marion County; a petroleum distribution line belonging to Sante Fe Pipeline Inc. and a natural gas distribution line belonging to Northwest Pipeline Corp. Both pipelines run generally north and south through the County east of I-5. Northwest Natural Gas has a small network running through Salem to meet their customers' needs as well as a recently constructed pipeline extension connecting to their Mist, OR reservoirs. All three companies have metering stations throughout the county. Details of each of the pipelines, including maps of their specific locations, are not provided for security reasons, as requested by the pipeline companies. Information about these pipelines is provided in **Table 5-20**.

Table 5-20
Pipelines in Marion County

FEATURES	SANTE FE PIPELINE INC	NORTHWEST PIPELINE CORP	NORTHWEST NATURAL GAS
Type:	Petroleum Distribution	Natural Gas Distribution	Natural Gas Distribution
Capacity:	40,000 barrels/day	60 million cu ft. / yr	375 million standard cubic feet per year
Pipeline Users:	Chevron, Exxon, Texaco, others	Northwest Natural Gas Co,	Northwest Natural Gas Co.
Starting Points:	Portland	Portland	Mist, OR storage fields
Ending Points:	Albany and Eugene	Grants Pass	Molalla Gate on Williams Energy System Pipeline
General Route:	Generally parallel to I-5 on the eastside of I-5	Generally parallel to I-5 on the eastside of I-5	Generally along the north east corner of the county line.
Future Expansion Plans:	Possibly add another pipeline N of Salem to Bend depending on future demand	No specific plans at this time	No specific plans at this time

5.9 UTILITY/COMMUNICATIONS SERVICE

There are nine companies that provide telephone service to various areas of Marion County and seven companies that provide cable television service. **Appendix E** provides maps showing the coverage areas of telephone and cable television service providers in the County. In addition, four major telephone companies have fiberoptics lines running through County: MCI, AT&T, GTE, and Qwest. The locations of the primary fiberoptic lines are not shown for security reasons, as requested by the utility companies. The entire fiberoptic network is quite extensive and mapping all of the fiberoptic lines would be an extremely difficult task as many existing phone lines are in the process of being upgraded. As a result, the fiberoptic network is being expanded on a continuous basis.

CHAPTER 6: FUTURE TRAFFIC VOLUME PROJECTIONS

When planning ahead to address the needs of our transportation network, it is important to project the level of traffic that we can anticipate during our planning period and beyond. Population growth plays a key role in determining the needs of a transportation system. Generally, an increase in population results in an increase in the use of transportation facilities, which in most cases means more vehicles on the roadways. For this reason, future population growth is often a good indicator of future increases in traffic volumes. To help paint this 'picture,' we have used population figures compiled by the U.S. Census Bureau, Portland State University Population Research Center, and projections developed by Marion County in coordination with the individual cities in Marion County.

Based on this information, County staff has developed projections of what the future traffic volume will be for the major roadways within Marion County in the year 2025. These project the anticipated demand for travel on each road assuming the roadway will have adequate capacity to handle this demand. We then identify locations where capacity problems are anticipated to develop during the 20-year timeframe of this plan, and these locations are described in Chapter 8.

6.1 POPULATION FORECAST

Marion County is required by Oregon Revised Statutes (ORS 195.036) to establish and maintain a population forecast for the entire county, in coordination with the local cities. This forecast is used in maintaining and updating comprehensive plans. As part of the Marion County Comprehensive Plan, 2020 population projections were developed in cooperation with local governments and adopted by the County in October 1998. The adopted 2020 projections utilized population information provided in the 1997 Office of Economic Analysis (OEA) long-range population forecast report for the state and counties, population estimates for cities and counties provided by the Portland State University Population Research Center, and the respective plans and studies of each of the cities. A conservative growth approach focusing on existing Urban Growth Boundary capacities contained in the existing comprehensive plans of the cities was utilized and adopted by the County.

Amendments to the adopted population projections are reviewed and adopted on a periodic basis, as new population data is made available. The City of Woodburn 2020 population projection was updated in November 2004 based on 2000 Census data, the 2004 OEA long-range population forecast report which incorporated 2000 Census data, and a population and employment projection study developed by the city. Marion County will again be addressing the population projections for all the cities and the unincorporated area of the county through a coordinated process to develop and adopt new 2025 or 2030 population projections for use in updating comprehensive plans.

In 1998, Marion County initiated a countywide Growth Management Project that resulted in the 2002 adoption of an Urban Growth Management Framework that is part of the Urbanization Element of the Marion County Comprehensive Plan. The Framework is a coordinated planning strategy that provides the county and cities with a guide when considering urban expansion needs and decisions in response to growth issues. It contains long-range 2050 population forecasts that can be used to begin considering planning issues beyond the standard 20-year horizons of local plans.

Table 6-1 shows the population figures counted in the 2000 census and preliminary 2003 estimates from Portland State University for each city in Marion County, the unincorporated areas of the County, and the County as a whole. Also shown are the County's adopted 2020 projections and the Growth Management Framework 2050 long-range forecast for the population of each city, the unincorporated areas of the County, and the County as a whole.

Table 6-1
Population Projections for Marion County

CITY	2000 CENSUS	2003 PSU ANNUAL ESTIMATE (Preliminary)	2020 COUNTY FORECAST	2050 LONG-RANGE FORECAST
Aumsville	3,003	3,050	5,010	8,000
Aurora	655	660	930	1,500
Detroit	262	250	535	605
Donald	608	620	1,050	2,200
Gates [1]	429	445	800	1,100
Gervais	2,009	2,110	2,168	3,572
Hubbard	2,483	2,700	3,105	3,300
Idahna [1]	147	145	230	250
Jefferson	2,487	2,480	2,895	3,700
Keizer	32,203	34,010	35,698	Incl. with Salem
Mill City [1]	312	295	420	426
Mt. Angel	3,121	3,700	4,365	4,755
St. Paul	354	390	475	475
Salem [1]	119,040	123,847	180,176	342,387 [2]
Scotts Mills	312	300	420	430
Silverton	7,414	7,980	9,965	13,500
Stayton	6,816	7,150	9,250	10,600
Sublimity	2,148	2,160	3,590	3,836
Turner	1,199	1,480	2,363	2,451
Woodburn	20,100	21,560	34,919	38,000
Unincorporated Urban [3]	29,501	29,810	250[4]	1,000 [4]

CITY	2000 CENSUS	2003 PSU ANNUAL ESTIMATE (Preliminary)	2020 COUNTY FORECAST	2050 LONG-RANGE FORECAST
Rural [3]	50,231	50,758	60,967	58,313
County Total	**284,834**	**295,900**	**359,581**	**500,400**

(1) Marion County portion only (Salem and Keizer forecasts coordinated with SKATS and are portion of entire Salem/Keizer area forecast total)
(2) Includes Keizer
(3) Estimated by County staff.
(4) Most unincorporated urban population included in urban area projections.

6.2 FUTURE TRAFFIC PROJECTIONS

Future traffic volumes have been projected by County Staff for the year 2025. These projections are based on many factors, including:

- Population projections for the areas served by the road
- Anticipated growth of cities
- Anticipated growth of business traffic on the road
- Connections to recreation or tourist activities
- Directness of the route
- Character of the roadway
- Anticipated transportation trends
- Land development patterns

As a reference, **Figure 6-1** shows the existing traffic volumes on roadways in rural Marion County. This gives us a picture of the traffic volumes currently on the County road system today.

Figure 6-2 shows projected future traffic volume demand on selected major rural roadways. The projected future traffic volumes have been used to identify roadway segments that could experience heavy traffic and unacceptable levels-of-service within the next 20 years if no improvements are made, such as transit improvements, Transportation System Management (TSM) and Transportation Demand Management (TDM) strategies, or roadway improvements. As it is not possible to predict the growth of a region with complete accuracy, future traffic projections will need to be updated regularly as more accurate and updated information becomes available.

It is important to note that these projections are for future traffic volume demand. This is our estimate of the number of drivers who would want to use that roadway in the year 2025. This would be equivalent to the projected traffic volume on that road if an adequate supply of roadway capacity is available. In some cases, roadway expansion would have to occur before these volumes of traffic could actually travel on that road. If sufficient capacity is not available, drivers would likely divert to other routes. If these other routes are not available, or if they also lack available capacity, some drivers may choose to make the trip to a different location, not make the trip, or reduce their visits to or business in the region.

Figure 6-3 shows the anticipated growth in traffic volume demand on key roadways in Marion County as a percentage of the current traffic volume on the road.

Table 6-2 shows the projected future traffic volume demand for Arterials, Major Collectors, and Strategic Corridors in Rural Marion County, including State Highways. 1995 volumes are also listed for reference.

These traffic volume projections give us an idea of the demand that will be placed on our road system in 20 years, and helps us understand where capacity problems are anticipated to develop. Traffic volumes are anticipated to increase on virtually all roadways in Marion County, and some key corridors are expected to see large increases in traffic volume. In some cases, key roadways and intersections currently do not have enough capacity to handle the amount of traffic that will want to use that road.

Table 6 – 2
Projected Future Daily Traffic Volume Demand

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Airport Rd	Ehlen Rd	Arndt Rd	2100	2600	3800
Arndt Rd	Oregon 551	Airport Rd	8200	12500	20000
Arndt Rd	Boones Ferry Rd	Oregon 551	2000	2400	3200
Aumsville Hwy	Salem	Witzel Rd	1800	2500	4000
Aumsville Hwy	Witzel Rd	Silver Falls Hwy	1700	1800	2800
Aumsville Hwy	Silver Falls Hwy	Aumsville	4200	4000	5200
Battle Creek Rd	Delaney Rd	Salem	1400	1700	2500
Brooklake Rd	Wheatland Rd	River Rd	2200	2500	3500
Brooklake Rd	River Rd	Huff Ave	7400	9300	15000
Brooklake Rd	Huff Ave	I-5	7000	12000	20000
Brooklake Rd	I-5	Oregon 99E	5800	8200	14000
Brush Creek Rd	Silverton Rd	Hazelgreen Rd	1300	1800	3000
Butteville Rd	Oregon 219	Donald	2300	2600	3600
Butteville Rd	Donald	Ehlen Rd	2300	2700	3800
Butteville Rd	Gervais	Oregon 219	2000	2600	4400
Cascade Hwy	Stayton	Oregon 22	8000	12500	20000
Cascade Hwy	Oregon 22	Sublimity	7200	9000	14000
Cascade Hwy	Sublimity	Triumph Rd	3700	3900	5000
Cascade Hwy	Triumph Rd	Oregon 214	3400	3600	4800
Cascade Hwy	Oregon 214	State St	2700	3400	4500
Cascade Hwy	State St	Sunnyview Rd	3100	3700	4800
Cascade Hwy	Sunnyview Rd	Kaufman Rd	3100	3700	4800

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Cascade Hwy	Kaufman Rd	Paradise Alley	3600	4600	6000
Cordon Rd	Caplinger Rd (Salem UGB)	State St	10900	14000	26000
Cordon Rd	State St	Center St	13700	17000	28000
Cordon Rd	Center St	Sunnyview Rd	12500	16000	27000
Cordon Rd	Sunnyview Rd	Silverton Rd	10400	14500	25000
Cordon Rd	Silverton Rd	Hayesville Dr	5400	8000	15000
Cordon Rd	Hayesville Dr	Kale St	4300	7000	13000
Cordon Rd	Kale St	Hazelgreen Rd	3700	6400	12000
Deer Park Rd	Culver Dr	Gaffin Rd	2000	2600	3800
Delaney Rd	Sunnyside Rd	I-5	1600	2600	4500
Delaney Rd	I-5	Battlecreek Rd	3000	3400	5500
Delaney Rd	Battlecreek Rd	Turner UGB	2450	2700	4500
Delaney Rd	Turner UGB	3rd Street	2900	3000	5000
Ehlen Rd	Donald Rd	Butteville Rd	3000	6600	14000
Ehlen Rd	Butteville Rd	Bents Ct	5000	8600	16000
Ehlen Rd	Bents Ct	I-5	5800	9800	20000
Ehlen Rd	I-5	Oregon 551	4100	7600	13000
Ehlen Rd	Oregon 551	Aurora UGB	4800	8300	13500
Gaffin Rd	Cordon Rd	Oregon 22	2800	3800	6000
Golf Club Rd	Oregon 22	Stayton UGB	9500	10000	16000
Hazelgreen Rd	Salem UGB	Cordon Rd	5600	6500	10000
Hazelgreen Rd	Cordon Rd	62nd Ave	4100	5400	8000
Hazelgreen Rd	62nd Ave	Howell Prairie Rd	3800	5000	7600
Hazelgreen Rd	Howell Prairie Rd	Shannon Rd	3100	3700	6500
Hazelgreen Rd	Shannon Rd	Brush Creek Rd	3400	4200	6500
Hazelgreen Rd	Brush Creek Rd	Mt. Angel Hwy	4300	5400	8000
Hazelgreen Rd	Mt. Angel Hwy	Silverton UGB	3100	3700	6500
Howell Prairie Rd	Oregon 214	Jordon Rd	500	700	1000

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Howell Prairie Rd	Jordon Rd	Macleay Rd	800	900	1300
Howell Prairie Rd	Macleay Rd	State St	1200	1400	2100
Howell Prairie Rd	State St	Sunnyview Rd	2000	2400	3200
Howell Prairie Rd	Sunnyview Rd	Kaufman Rd	2200	2600	3400
Howell Prairie Rd	Kaufman Rd	Silverton Rd	1500	2000	3000
Howell Prairie Rd	Silverton Rd	Hazelgreen Rd	1500	2300	3200
Howell Prairie Rd	Hazelgreen Rd	Labish Center Rd	1500	1700	2300
Howell Prairie Rd	Labish Center Rd	Waconda Rd	1200	1400	1800
Howell Prairie Rd	Waconda Rd	Mt. Angel-Gervais Rd	1100	1400	1800
Howell Prairie Rd	Mt. Angel-Gervais Rd	Monitor-McKee Rd	1500	1800	2400
Howell Prairie Rd	Monitor-McKee Rd	Oregon 99E	3000	3300	4500
Hylo Rd	Liberty Rd	Sunnyside Rd	1200	1700	2800
Jefferson-Marion Rd	Jefferson City Limits	Skelton Rd	2900	3000	4500
Jefferson-Marion Rd	Skelton Rd	Parrish Gap Rd	2500	2500	4000
Jefferson-Marion Rd	Parrish Gap Rd	Greens Bridge Rd	2100	2400	4000
Jefferson-Marion Rd	Greens Bridge Rd	Stayton Rd	2400	2500	4000
Jefferson-Scio Rd	Jefferson UGB	County Line	2500	2600	4000
Liberty Rd	Salem	Hylo Rd	3000	4000	6000
MacLeay Rd	Cordon Rd	Culver Dr	2800	3800	6000
MacLeay Rd	Culver Dr	62nd Ave	1400	1800	2800
Marion Rd	Stayton Rd	Mac Robins Ln	1100	1100	1400
Marion Rd	Mac Robbins Ln	Darley Rd	1300	1300	1600
Marion Rd	Darley Rd	Shaff Rd	1700	1700	2100
Marion Rd	Shaff Rd	Bear Ln SE	2300	2000	2500
Marion Rd	Bear Ln SE	Mill Creek Rd	2600	2200	3500
Marion Rd	Mill Creek Rd	Turner UGB	4700	4300	6000
Matheny Rd	Ferry Landing	Wheatland Rd	1050	900	1100
Matheny Rd	Wheatland Rd	River Rd	690	800	1000

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
McKay Rd	Oregon 219	French Prairie Rd	3700	6800	13500
McKay Rd	French Prairie Rd	Arbor Grove Rd	3100	6500	13200
Meridian Rd	Hobart Rd	Downs Rd	1700	2000	2800
Meridian Rd	Downs Rd	E. College Rd	2400	2600	3200
Meridian Rd	E. College Rd	Marquam Rd	1800	2000	2800
Meridian Rd	Marquam Rd	Woodburn-Monitor Rd	2000	2200	2800
Mill Creek Rd	Marion Rd	Aumsville	3100	2700	4200
Mill Creek Rd	Aumsville	Golf Club Rd	3700	3300	4500
Mt. Angel-Gervais Rd	Oregon 99E	Howell Prairie Rd	1400	2200	3300
Mt. Angel-Gervais Rd	Howell Prairie Rd	Mt. Angel	1300	1300	1800
Mt. Angel Hwy	Hazelgreen Rd	Mt. Angel	2500	3400	5500
Mt. Angel-Scotts Mills Rd	Meridian Rd	Oregon 213	2000	2200	2700
Mt. Angel-Scotts Mills Rd	Oregon 213	Scotts Mills	1600	1800	2300
North Fork Rd	Oregon 22	Pioneer Rd	1300	1500	2000
Orville Rd	South River Rd	Vitae Springs Rd	1300	1800	3000
River Rd	Keizer City Limits	Brooklake Rd	4900	5800	9500
River Rd	Brooklake Rd	Waconda Rd	4500	5100	8000
River Rd	Waconda Rd	French Prairie Rd	3900	4600	7200
River Rd	French Prairie Rd	Mahony Rd	2200	2500	4500
River Rd	Mahony Rd	Davidson Rd	2500	2800	4700
River Rd	Davidson Rd	St. Paul	2400	2600	4700
River Rd South	Independence Bridge	Orville Rd	3800	4700	6500
River Rd South	Orville Rd	Vitae Springs Rd	2400	2700	4000
River Rd South	Vitae Springs Rd	Sawmill Rd	2400	2800	4100
River Rd South	Sawmill Rd	Riverdale Rd	2500	2900	4200
River Rd South	Riverdale Rd	Salem	2900	3200	5000
Shaw Hwy	Aumsville	Oregon 22	3500	4500	8500
Shaw Hwy	Oregon 22	Brownell Rd	1200	1600	2200

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Shaw Hwy	Brownell Rd	Oregon 214	900	1000	1300
Silverton Rd	Cordon Rd	72nd Ave	8900	11000	17500
Silverton Rd	72nd Ave	Howell Prairie Rd	8100	10500	17000
Silverton Rd	Howell Prairie Rd	Shannon Rd	8200	10500	17000
Silverton Rd	Shannon Rd	Brush Creek Rd	8100	10500	17000
Silverton Rd	Brush Creek Rd	Silverton	7800	9500	16000
Skyline Rd	Vitae Springs Rd	Salem	3200	3600	5000
State St	Cordon Rd	63rd Ave NE	3900	4700	6200
State St	63rd Ave NE	Howell Prairie Rd	2400	3300	4800
Stayton Rd	Jefferson-Marion Rd	Woodpecker Dr	2100	2300	3300
Stayton Rd	Woodpecker Dr	W Stayton Rd	2500	2700	3700
Stayton Rd	W Stayton Rd	Stayton	3300	3800	5400
Sublimity Rd	Golf Club Rd	Sublimity	2000	3400	6000
Sunnyside Rd	Delaney Rd	Salem	1800	2500	4000
Sunnyview Rd	Cordon Rd	Hampden Ln	2800	3200	4000
Sunnyview Rd	Hampden Ln	Howell Prairie Rd	1800	2200	3000
Talbot Rd	Buena Vista Rd	Marlatt Rd	200	200	240
Talbot Rd	Marlatt Rd	Jorgenson Rd	700	600	700
Talbot Rd	Jorgenson Rd	I-5	900	800	900
Talbot Rd	I-5	Jefferson Hwy	1300	1600	2400
Turner Rd	Turner City Limits	Salem	5100	5700	9000
Vitae Springs Rd	Orville Rd	Skyline Rd	1600	2100	3800
Wheatland Rd	Keizer	Brooklake Rd	1700	2000	2800
Wheatland Rd	Brooklake Rd	Ferry	2000	2200	2800
Whiskey Hill Rd	Hubbard	Clackamas County	1900	2600	4500
Woodburn-Monitor Rd	Oregon 214	Meridian Rd	1400	1500	2000
Woodburn-Monitor Rd	Meridian Rd	Clackamas County	2600	2800	3800
Yergen Rd	Arbor Grove Rd	Case Rd	3700	7400	14000

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Yergen Rd	Case Rd	Donald Rd	3700	7600	14500
Interstate 5	Linn County	Talbot Rd	50000	60100	100000
Interstate 5	Talbot Rd	Ankeny Hill Rd	50100	60300	100000
Interstate 5	Ankeny Hill Rd	Jefferson Hwy	49000	60300	100000
Interstate 5	Jefferson Hwy	Delaney Rd	50100	62000	104000
Interstate 5	Delaney Rd	Salem UGB	46900	58100	100000
Interstate 5	Salem UGB	Brooklake Rd	71000	85800	146000
Interstate 5	Brooklake Rd	Woodburn	68900	85300	146000
Interstate 5	Woodburn	Ehlen Rd	64600	84000	155000
Interstate 5	Ehlen Rd	Clackamas County	67400	86400	165000
Oregon 22	Salem UGB	Joseph St	19700	23600	42000
Oregon 22	Joseph St	Silver Falls Hwy	14400	22900	41000
Oregon 22	Silver Falls Hwy	Aumsville	14100	20500	39000
Oregon 22	Aumsville	Golf Club Rd	13800	20000	35000
Oregon 22	Golf Club Rd	Cascade Hwy	10600	13300	26000
Oregon 22	Cascade Hwy	Old Mehama Rd (west int)	10000	12000	18000
Oregon 22	Old Mehama Rd (west int)	Oregon 226	9000	10500	16000
Oregon 22	Oregon 226	North Fork Rd	7100	7900	11500
Oregon 22	North Fork Rd	Mill City	5300	6200	9500
Oregon 22	Mill City	Gates	4800	5000	7500
Oregon 22	Gates	Detroit	3800	4000	5800
Oregon 22	Detroit	Idanha	3100	3600	5000
Oregon 22	Idanha	Linn County	2800	3300	4600
Oregon 99E	Clackamas County	Ehlen Rd	13100	16000	28000
Oregon 99E	Ehlen Rd	Wilsonville-Hubbard Hwy	7500	9500	16000
Oregon 99E	Wilsonville-Hubbard Hwy	Hubbard	12600	16500	32000
Oregon 99E	Hubbard	Woodburn	12000	16000	30000
Oregon 99E	Woodburn	Boones Ferry Rd	10000	12000	17000

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Oregon 99E	Boones Ferry Rd	Mt. Angel-Gervais Rd	8500	11600	18000
Oregon 99E	Mt. Angel-Gervais Rd	Waconda Rd	7900	11000	16000
Oregon 99E	Waconda Rd	Brooklake Rd	8800	11000	16000
Oregon 99E	Brooklake Rd	Quail St	9500	10600	16500
Oregon 99E	Quail St	Chemawa Rd	10900	11700	16500
Oregon 211	Woodburn	Clackamas County	6200	7200	11000
Oregon 213	Clackamas County	Abiqua Rd	3000	3900	6200
Oregon 213	Abiqua Rd	Silverton	4000	5200	7800
Oregon 214	I-5	Oregon 99E	16000	19000	40000
Oregon 214	Oregon 99E	Elliot Prairie Rd	6500	7800	12500
Oregon 214	Elliot Prairie Rd	Mt. Angel	5900	6400	10000
Oregon 214	Mt. Angel	Silverton	5600	6200	9500
Oregon 214 (Silver Falls Hwy)	Oregon 22	Shaw Hwy	1250	1400	1800
Oregon 214 (Silver Falls Hwy)	Shaw Hwy	Cascade Hwy	650	800	1100
Oregon 214 (Silver Falls Hwy)	Cascade Hwy	Silver Falls Park	600	650	1000
Oregon 214 (Silver Falls Hwy)	Silver Falls Park	Drakes Rd	400	480	800
Oregon 214 (Silver Falls Hwy)	Drakes Rd	Forest Ridge Rd	1200	1400	2000
Oregon 214 (Silver Falls Hwy)	Forest Ridge Rd	Silverton	2400	2600	4000
Oregon 219	Yamhill County	Champoeg Rd	5900	8000	17000
Oregon 219	Champoeg Rd	McKay Rd	5700	7500	16000
Oregon 219	McKay Rd	St. Paul	2900	4100	7000
Oregon 219	St. Paul	French Prairie Rd	1800	2200	3200
Oregon 219	French Prairie Rd	Mahony Rd	2200	3100	5000
Oregon 219	Mahony Rd	Arbor Grove Rd	2200	2600	3500
Oregon 219	Arbor Grove Rd	Butteville Rd	2400	2800	3800
Oregon 219	Butteville Rd	I-5	6000	8100	24000
Oregon 226	Linn County	Oregon 22	4300	4900	7000
Wilsonville-Hubbard Hwy	Clackamas County	Ehlen Rd	6700	9600	18000

Corridor	From	To	1995 Daily Volume	2004 Daily Volume	2025 Daily Projection
Wilsonville-Hubbard Hwy	Ehlen Rd	Oregon 99E	5200	7800	17000
Jefferson Hwy	I-5	Ankeny Hill Rd	2000	2900	5000
Jefferson Hwy	Ankeny Hill Rd	Winter Creek Rd	2400	3400	5500
Jefferson Hwy	Winter Creek Rd	Talbot Rd	2000	3200	5500
Jefferson Hwy	Talbot Rd	Jefferson	4500	5000	8000

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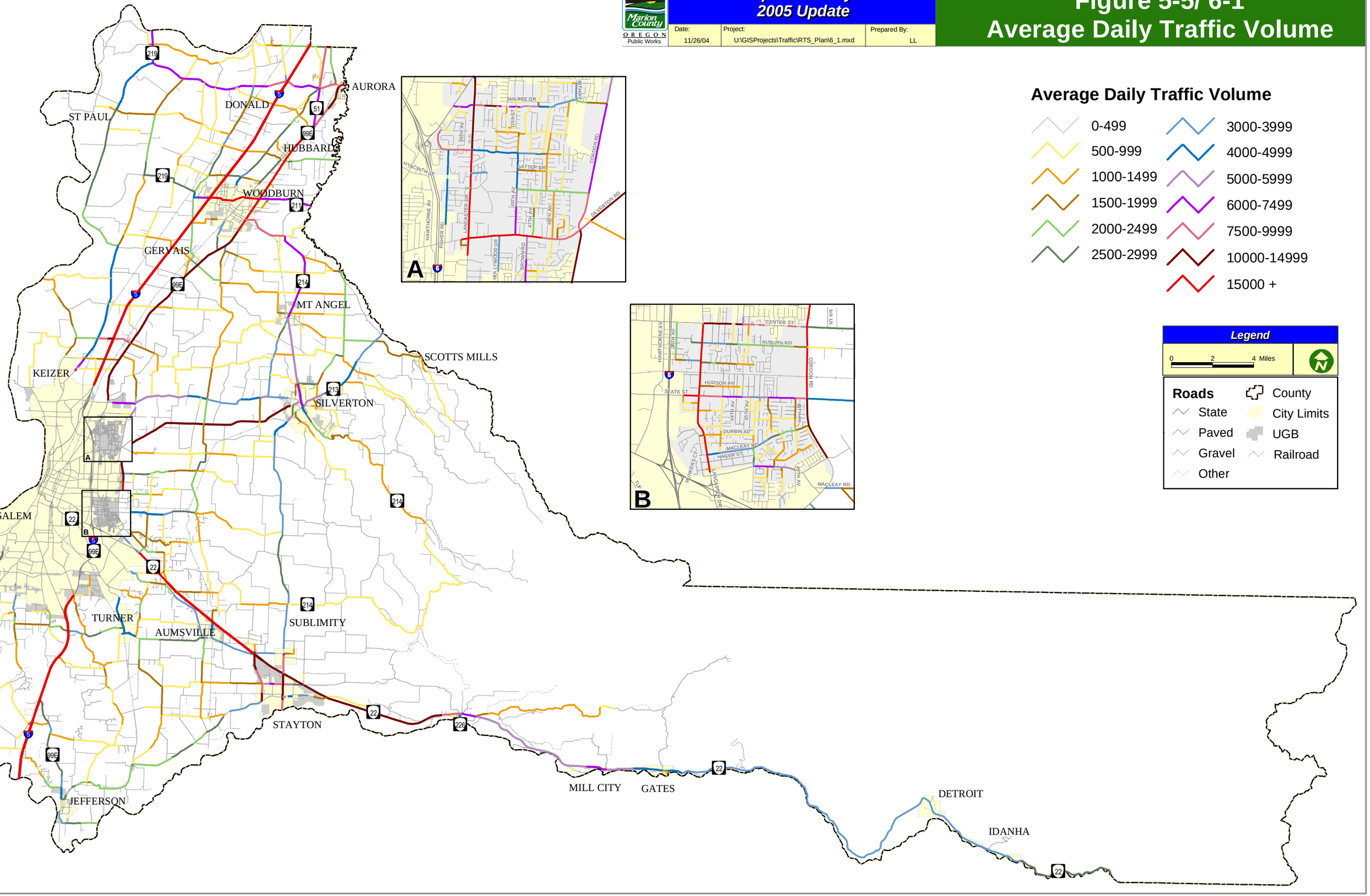
Figure 5-5/ 6-1
Average Daily Traffic Volume



Average Daily Traffic Volume

0-499	3000-3999
500-999	4000-4999
1000-1499	5000-5999
1500-1999	6000-7499
2000-2499	7500-9999
2500-2999	10000-14999
	15000 +

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other
- County
- City Limits
- UGB
- Railroad

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Figure 6-2. Year 2025 Projected Daily Traffic Volume Demand

Marion County OREGON Public Works

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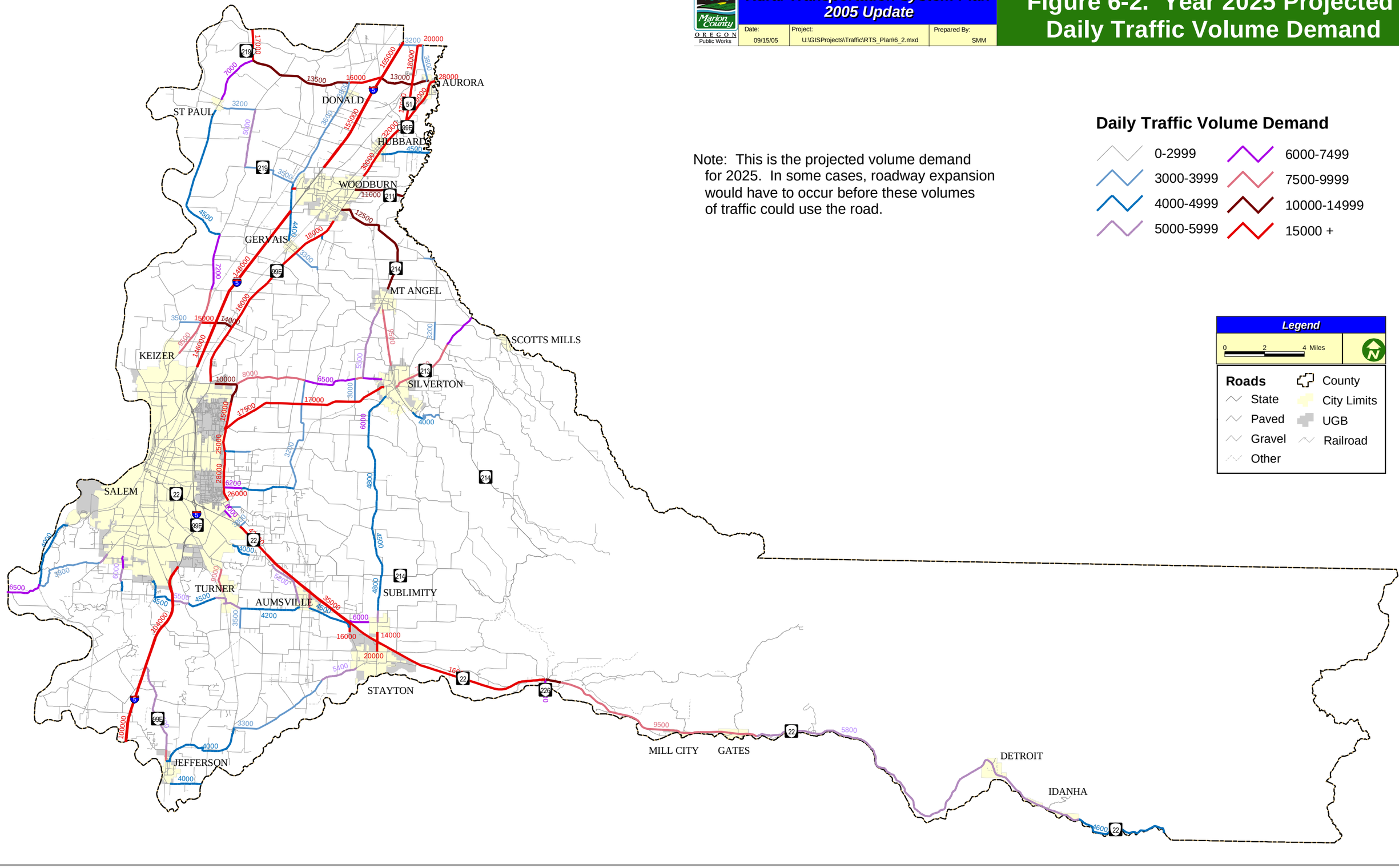

Note: This is the projected volume demand for 2025. In some cases, roadway expansion would have to occur before these volumes of traffic could use the road.

Daily Traffic Volume Demand

- 0-2999
- 3000-3999
- 4000-4999
- 5000-5999
- 6000-7499
- 7500-9999
- 10000-14999
- 15000 +

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other
- County
- City Limits
- UGB
- Railroad

Rural Transportation System Plan 2005 Update

Marion County OREGON Public Works

Date:	Project:	Prepared By:
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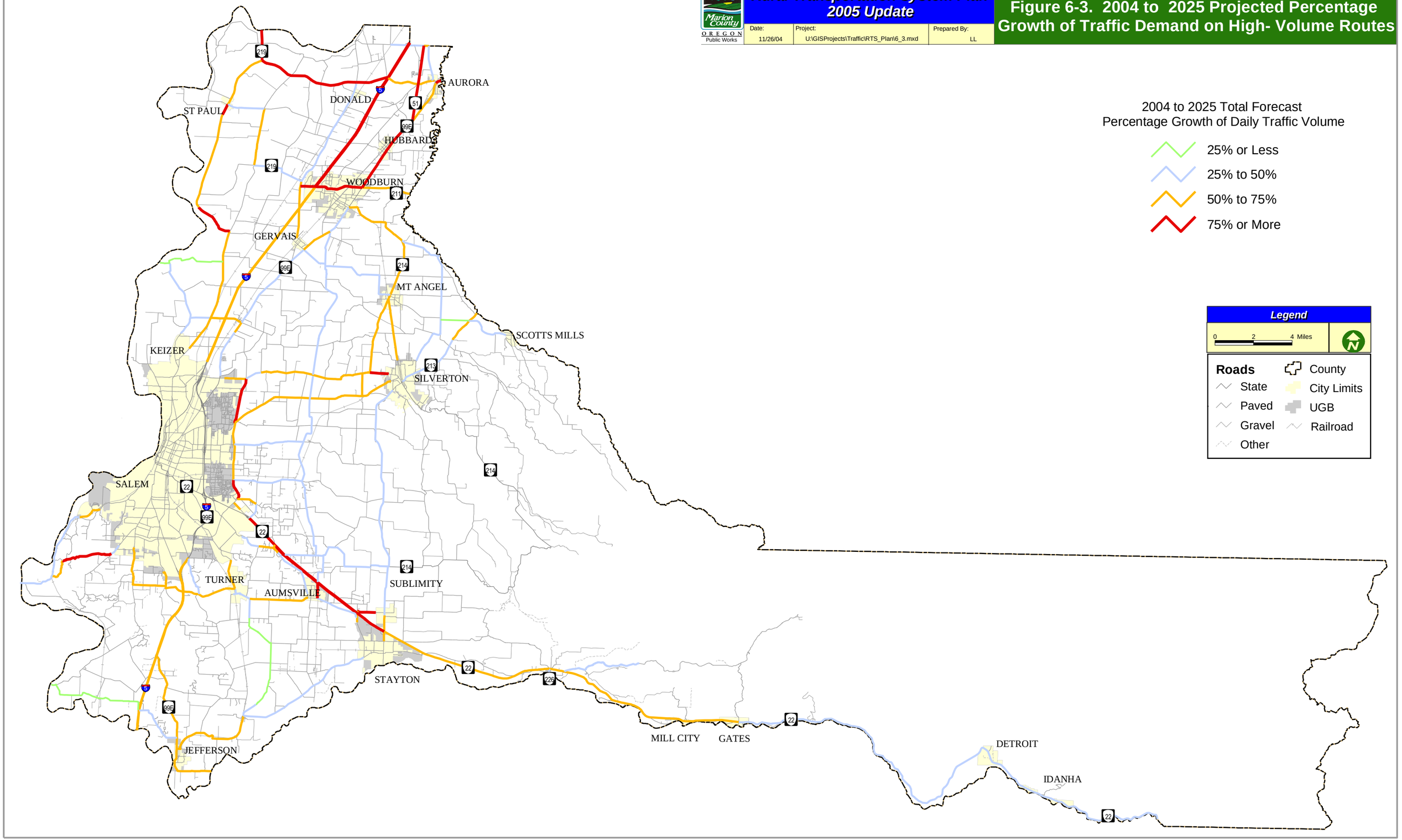
Figure 6-3. 2004 to 2025 Projected Percentage Growth of Traffic Demand on High- Volume Routes



2004 to 2025 Total Forecast
Percentage Growth of Daily Traffic Volume

- 25% or Less
- 25% to 50%
- 50% to 75%
- 75% or More

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB
- Railroad

CHAPTER 7: DEVELOPMENT AND EVALUATION OF 20-YEAR STRATEGIES

In the 1998 Rural Transportation System Plan this section defined the County's strategy for future maintenance and improvement of our transportation systems. This section is repeated here with no substantial changes, as the County's strategy has not changed with this updated document. While minor revisions have been made to the goals and objectives, the County's general transportation strategy of inter- and intra- County mobility still remains the best approach to reach our goals and objectives.

7.1 DESCRIPTION OF STRATEGIES

evaluates the strategies we developed for our Transportation System Plan. As a starting point to arrive at suitable strategies, we reviewed several alternatives included in the Transportation Planning Rule Guidelines. A description of these are:

7.1.1 No-Build Alternative

This alternative is to show what would happen to our current system if no changes are made other than committed projects and improvements to existing services such as transit service. This alternative is not consistent with the policy direction of the Willamette Valley Transportation Strategy, Oregon Transportation Plan, and other policy actions at the State and regional level. However, it will still be considered for purposes of comparison.

7.1.2 Transportation System Management (TSM) Alternative

TSM focuses on maximizing the efficiency of the existing system and mitigating safety problems by implementing traffic control improvements, access management strategies, and land use controls. Although several TSM actions would be beneficial to the County, a TSM alternative by itself would not sufficiently address the farm-to-market and countywide transportation issues that the transportation system needs to address.

7.1.3 Transportation Demand Management (TDM) Alternative

TDM focuses on strategies to reduce or contain the demand for transportation facilities, especially during the peak periods of travel. TDM strategies include shifting work schedules away from peak periods, compressing the work schedules into fewer days, rideshare programs, telecommuting, and alternative modes such as transit, bicycling, and walking. This alternative is especially effective in managing commuter traffic. However, due to the rural nature of the County, an alternative based solely on TDM would not adequately address many of the farm-to-market, freight, and business needs of the County.

7.1.4 Transit Alternative

This alternative looks at providing transit service where none exists or at improving or expanding existing service. Transit service can include fixed route and para-transit service as well as park-and-ride facilities along major bus routes. Marion County residential and employment areas outside of the Salem/Keizer urban area are not likely to achieve density levels high enough to

support a fixed countywide transit system, with the exception of a few shuttle-type routes between cities. In addition, many of the existing and future transportation problems in the rural County are primarily safety related or involve short corridor capacity needs that transit improvements will only marginally improve. A public transportation feasibility study conducted by the Mid-Willamette Valley Council of Governments for this transportation plan recommends that the function of a transit system in Marion County should be to provide access from outlying cities to Salem for commuter and daily business travelers, and to improve para-transit service for County residents without other travel options to conduct personal business, seek medical services, or visit friends. As such, a transit-only alternative that focuses on developing a fixed route, countywide transit system would not be suitable for Marion County. Instead, recommendations from the MWVCOG transit study, which identified the need for commuter shuttles, have been incorporated as part of an overall transportation strategy.

7.1.5 Roadway Improvement Alternative

This alternative focuses on improvements to the existing system by providing capacity for cars, trucks, and buses. Some of the improvements could be large-scale roadway improvements and involve refinement studies. While many roadway improvements are needed in the County, an alternative that focuses only on roadway improvements would be short-sighted and would do little do promote alternative, more fuel-efficient and environmentally responsible modes of transportation.

7.1.6 Land-Use Alternative

Land use alternatives involve evaluating different land use scenarios, which would eliminate the need for new transportation facilities, while allowing population and employment growth to be accommodated. While minor, isolated changes in land use plans may be appropriate, large sweeping land use changes would be disruptive to the large areas of agricultural and forest resources that are critical to the character and prosperity of the County. For this reason, a land-use alternative by itself would not be an appropriate strategy for Marion County.

7.1.7 Combination of Alternatives

Combining the alternatives would optimize overall transportation system performance. As discussed above, it is unlikely that any one of the above alternatives by itself would be able to address the large number and varying nature of commuter and rural needs of County residents. In addition, there may be components of each of the above alternatives that are not physically or politically feasible, while other components may not adequately resolve issues or problems.

Combining the alternatives allows the County to implement the most effective and feasible components from each. To combine alternatives, we developed nine conceptual strategies as follows:

1. No Build Strategy
2. Build it All at Any Cost
3. Inter-County Mobility
4. Farm to Market
5. Leave the Car at Home
6. Build/Do as Much as Possible
7. Intra-County Mobility
8. Perimeter Roads / New Development Patterns
9. Intra- / Inter-County Mobility

7.2 STRATEGY EVALUATION

Each of the nine strategies are described and evaluated below including how well they address the goals and objectives of the TSP. The results of this evaluation are shown in **Table 7-1**.

7.2.1 No Build

The No-Build strategy represents a baseline measure used to compare the effect of doing nothing versus the preferred strategy. The No-Build strategy assumes that the projects on the County's Capital Improvement Program (CIP) through the year 2006 will be completed over the 20-year planning period. Beyond 2006, the strategy assumes that no other capital projects will be done. No other program changes are included in this strategy, such as transportation system management, transportation demand management, transit, roadway improvements, and land use changes.

Table 7-1 shows that a No-Build strategy would make no progress in achieving the goals and objectives of the TSP. This strategy would do nothing to improve system safety or increase mobility, capacity, and accessibility. It would also do nothing to address the needs of the farming, trucking, and tourism industries that are critical for economic development in the region.

7.2.2 Build it All at Any Cost

This strategy represents a financially unconstrained approach to transportation planning. It consists of addressing all of the transportation needs in the County, regardless of the cost of doing so. While the majority of projects would involve roadway and capacity improvements, this strategy could also include TSM (Transportation System Management – making more efficient use of the existing system) and TDM (Transportation Demand Management – reducing the demand for vehicle travel) actions, a full-scale transit system, an extensive network of bicycle and pedestrian facilities, and a commuter rail system.

This strategy would make a moderate level of progress towards achieving the goals and objectives as shown in **Table 7-1**. It would thoroughly address safety needs, mobility, and accessibility needs, and would make some progress towards accommodating growth. However, this strategy does not take into account the relationship between land use and transportation. In addition, this strategy is financially irresponsible and unrealistic due to the unlikelihood that funding could be found to complete all of these projects over the next 20 years.

7.2.3 Inter-County Mobility

The term "inter-County" refers to travel between counties, or in this case, into or out of Marion County. This strategy focuses on travel where one end or both ends of a trip takes place outside of the County. The strategy is oriented towards agricultural and truck traffic, commuter traffic, and tourism.

Due to the agricultural nature of the County, bringing products from 'farm-to-market' often requires trips to be made outside of the County. Several cities in the County also serve as 'bedroom' communities to Portland and other large employment centers in nearby counties. As a result, a significant portion of daily traffic is made up of commuter trips. In addition, the County attracts a significant amount of tourism traffic from outside the County and this trend is expected to increase with the growing popularity of existing tourist attractions, such as Silver Falls State Park, the Oregon Garden, and the emergence of new tourist destinations. This strategy will effectively address the inter-County freight mobility, commuting, and tourism needs of the County. Components of this strategy would likely include safety and capacity improvements, bicycle and pedestrian improvements, TSM/TDM actions, and possibly transit and commuter rail service. **Table 7-1** shows that all of the goals and objectives are addressed fairly well under this strategy.

7.2.4 Farm-to-Market

This strategy would facilitate travel for trucks and farm vehicles by providing wider lanes and shoulders, adopting special design standards to facilitate truck traffic, and other safety improvements along heavily used truck routes. TSM actions could also be implemented as part of this strategy. Transit service, if included in this strategy, would likely be oriented toward para-transit for the transportation-disadvantaged.

Although this strategy addresses farm-to-market issues that make up a significant portion of transportation needs in the County, it would not provide sufficient transportation capacity for non-farm freight mobility and commuting needs, as shown in **Table 7-1**. In addition, this alternative will do little to promote alternative modes of transportation.

7.2.5 Leave the Car at Home

This strategy focuses on TDM measures such as telecommuting, compressed work weeks, a network of park-and-ride lots; transit service to these new park-and-ride lots; improved bus service to Wilsonville, Portland, and other large destinations; ride-sharing programs; alternative modes; parking strategies; and employer-based trip reduction programs.

Several components of this strategy are appropriate for a transportation plan, but a TDM strategy by itself would be more appropriate for a large urban area rather than a large rural area like Marion County. A 20-year strategy based solely on TDM actions would not adequately address most of the farm-to-market, tourism, and safety issues as shown in **Table 7-1**.

7.2.6 Build / Do as Much as Possible

This strategy represents a financially constrained approach where improvements would be based on geographic equity and prioritized by time of need and level of importance. Components of this strategy would include safety improvements, TSM/TDM actions, bicycle/pedestrian projects, transit service, and possibly some capacity improvements.

This strategy would be appropriate since it attempts to address as many needs as possible based on the available levels of funding. However, it lacks a clear planning strategy and only marginally considers the relationship between land use and transportation. This strategy is, for the most part, reactive rather than proactive since it does not provide a long-term vision and does not attempt to shape the transportation network to meet the future demands on the system.

7.2.7 Intra-County Mobility

The term "intra-County" refers to travel within the County, meaning that both the starting point and ending point of a trip occur inside Marion County. This strategy focuses on supporting trips internal to the County, primarily trips from town to town. It includes improvements to the road system and bicycle/pedestrian facilities along key routes that link cities in the County. Transit service would include commuter transit routes along key commuter corridors and would be supported by a system of park-and-ride lots.

This Intra-County strategy addresses many needs of the agriculture and trucking industry, commuters, and the transportation disadvantaged in that it attempts to improve the connection between larger urban areas and surrounding smaller cities. Similar to the Inter-County strategy, this strategy addresses all the goals and objectives of the TSP to a high degree, as shown in **Table 7-1**. It is also well suited for a rural County with issues on bringing products from farm to market.

7.2.8 Perimeter Roads (Circumferential Routes) / New Development Patterns

This strategy represents a long-term vision to provide circumferential roads around urban areas to reduce the amount of traffic through town. Several cities have indicated a desire to divert traffic, mainly commercial truck traffic and through auto traffic, around urban areas. This strategy attempts to re-direct much of the non-local traffic around urban centers to improve the livability within the urban areas, meaning that many cities may find it easier to pursue the pedestrian and bicycle friendly developments that enhance the "small town" concept. To facilitate this strategy, land use/zoning patterns would need to be reviewed and policies adopted to prevent commercial and residential development along these perimeter roads. Roadway improvements would be oriented towards developing the circumferential pattern, while bicycle/pedestrian improvements and transit service would be oriented towards the urban centers. This strategy represents a very aggressive, forward-thinking approach to planning a future transportation system. It examines the dual functionality of many urban throughways (truck/auto traffic versus bicycle/pedestrian traffic) that would otherwise have to be addressed by another strategy. While it addresses all of the goals and objectives to some degree as shown in **Table 7-1**, this strategy would almost certainly extend beyond the 20-year time frame. In addition, many concerns arise regarding compatibility of perimeter roads with perimeter land uses and the intent of the Transportation Planning Rule. For that reason, this concept will be discussed separately as a long-term conceptual issue (Section 13).

7.2.9 Intra- and Inter-County Mobility

This strategy combines the key elements of the Inter-County Mobility strategy (#3) with the key elements of the Inter-County Mobility strategy (#7). It focuses improvements on 'strategic

routes,' which are key corridors identified as being most critical to either Inter-County or Intra-County mobility (or both). Focusing improvements on these key corridors allows efficient use of funds to facilitate passenger and goods movement, while maintaining much of the County's rural character along other roads. As shown in **Table 7-1**, this strategy has many benefits.

7.3 BASIC ROADWAY NEEDS

Improvements that are absolutely essential for the maintenance and preservation of the County transportation system are included in the 20-year plan, regardless of which strategy is chosen. These improvements are referred to as "Basic Needs" and were identified as those projects that received a high project prioritization rating.

7.4 PREFERRED STRATEGY

Based on the evaluation in Section 7.1 and **Table 7-1**, the strategy that was determined to be the most appropriate for the County and best addresses the goals and objectives of the TSP was strategy #9, the combination of the Intra-County strategy and the Inter-County strategy. It was determined by the planning team, the Citizens Review Committee, and the Technical Advisory Committee that the Intra-County strategy should be pursued, but not at the exclusion of key Inter-County corridors. Therefore, the preferred strategy can be summarized as improvements that emphasize transportation along the County's primary Intra- and Inter-County corridors. The corridors that have been designated as strategic Intra-County or Inter-County corridors are shown in **Figure 7-1**.The preferred strategy is meant to facilitate safety and mobility for all users: truck drivers, residents, farmers, commuters, shoppers, and tourists. This strategy is consistent with the State policy in the Oregon Transportation Plan, which calls for facilitating the movement of goods and services and improving access in rural areas. Although another policy in the Oregon Transportation Plan discourages highway capacity improvements which primarily serve commuters from outside of urban growth boundaries, the preferred Intra-/Inter-County strategy is not intended to promote development and commuting outside urban areas; rather the Intra-/Inter-County strategy is intended to best facilitate the economic vitality of the Marion County region. Each of these strategic intra- and inter-county routes is also hereby designated a Strategic Freight Route – a route that is considered to be strategic in the movement of freight into, out of, within, and through Marion County. Each of these routes is also a key route for emergency response, and is thus also hereby designated a primary emergency response route. The County will continue to coordinate with emergency responders and managers to keep these route designations consistent with the routes most used in emergencies.

The improvements, which make up the Intra/Inter-County strategy, along with the basic needs (as described in Section 7.2), form the basis of the RTSP. These improvements are described in detail in Sections 8 and 9.

TABLE 7-1
EVALUATION OF STRATEGIES

LEGEND

- ● Provides exceptional achievement of the goal or objective
- ◕ Provides favorable achievement of the goal or objective
- ◑ Provides moderate achievement of the goal or objective
- ◔ Provides minimal achievement of the goal or objective
- ○ Provides negligible or no achievement of the goal or objective

Goals & Objectives	**Strategy 1** No-Build	**Strategy 2** Build it at any cost	**Strategy 3** Inter-county Mobility	**Strategy 4** Farm-to-Market	**Strategy 5** Leave the Car at Home	**Strategy 6** Build/Do as Much as Possible	**Strategy 7** Intra-County Mobility	**Strategy 8** Perimeter Roads / New Development Patterns	**Strategy 9** Combination of Intra & Inter County Mobility
Goal 1 – Improve Transportation Safety									
Improve System Safety for all Modes	○	●	◕	◕	◔	◕	◕	◕	◕
Overall Achievement of Goal 1	○	●	◕	◑	◔	◕	◕	◑	◕
Goal 2 – Provide an Accessible, Efficient, and Practical Transportation System									
Increase mobility and access options for Marion County system users	○	◕	◕	◔	◔	◕	◕	◕	◕
Facilitate goods movement into and out of area, increase freight mobility, and intermodel transfer	○	◕	◕	◕	○	◕	◕	◔	◕
Facilitate shipping of goods by the most efficient and least impactive means possible	○	◕	◕	◕	○	◕	◕	◕	◕
Address changing characteristics of trucking, aviation, agriculture, and rail industries	○	◕	◕	◔	◔	◔	◕	◔	◕
Facilitate system connections as needed to improve efficiency and access	○	◕	◕	◔	◔	◕	◕	◕	◕
Overall Achievement of Goal 2	○	◕	◕	◑	◔	◑	◕	◑	◕

Goals & Objectives	**Strategy 1** No-Build	**Strategy 2** Build it at any cost	**Strategy 3** Inter-county Mobility	**Strategy 4** Farm-to-Market	**Strategy 5** Leave the Car at Home	**Strategy 6** Build/Do as Much as Possible	**Strategy 7** Intra-County Mobility	**Strategy 8** Perimeter Roads / New Development Patterns	**Strategy 9** Combination of Intra & Inter County Mobility
Goal 3 – Provide Sufficient Transportation Capacity									
Accommodate existing needs and projected growth									
Adequately provide for the Transportation needs of residents									
Adequately provide for the Transportation needs of businesses, customers and visitors									
Encourage actions that reduce demand on transportation system									
Encourage actions that maximize value of existing system									
Overall Achievement of Goal 3									
Goal 4 – Recognize Fiscal Reality									
Facilitate best usage of available resources									
Be ready to use additional resources efficiently									
Facilitate procurement of grant funding									
Recognize that not all goals and objectives will be met to the ideal extent									
Overall Achievement of Goal 4									

Goals & Objectives	**Strategy 1** No-Build	**Strategy 2** Build it at any cost	**Strategy 3** Inter-county Mobility	**Strategy 4** Farm-to-Market	**Strategy 5** Leave the Car at Home	**Strategy 6** Build/Do as Much as Possible	**Strategy 7** Intra-County Mobility	**Strategy 8** Perimeter Roads / New Development Patterns	**Strategy 9** Combination of Intra & Inter County Mobility
Goal 5 – Work in partnership with communities to address needs									
Minimize adverse impacts of transportation system on quality of life in communities									
Minimize adverse impacts of transportation system on quality of life in rural areas									
Facilitate regional goods movement while minimizing conflict with central city livability									
Foster cooperation between the County and cities to address transportation issues									
Assist each community, when possible, to achieve its vision for the community									
Overall Achievement of Goal 5									
Goal 6 – Promote alternative modes of transportation									
Facilitate provisions for a variety of transportation options									
Reduce dependence on any one mode									
Facilitate improved connections between different modes									
Support land use planning strategies that facilitate transportation system development									
Overall Achievement of Goal 6									

Goals & Objectives	**Strategy 1** No-Build	**Strategy 2** Build it at any cost	**Strategy 3** Inter-county Mobility	**Strategy 4** Farm-to-Market	**Strategy 5** Leave the Car at Home	**Strategy 6** Build/Do as Much as Possible	**Strategy 7** Intra-County Mobility	**Strategy 8** Perimeter Roads / New Development Patterns	**Strategy 9** Combination of Intra & Inter County Mobility
Goal 7 Consider land use and Transportation relationships									
Integrate Land use and Transportation Planning to manage and plan the Transportation System	○	○	◓	◒	◒	◒	◓	◓	◓
Minimize detrimental effects of transportation improvements on rural land uses	◓	○	◒	◒	●	◒	◒	◒	◒
Ensure environmentally responsible Transportation System	◒	◒	◓	◒	●	◒	◓	◒	◓
Comply with clean air and water regulations	◓	○	◓	◒	◓	◓	◓	◒	◓
Protect established Land Uses including prime farmland	○	○	●	●	◓	◒	◓	◓	◓
Overall Achievement of Goal 7	◒	○	◓	◓	◓	◓	◓	◓	◓
Goal 8 – Address Transportation policy issues and intergovernmental Coordination									
Improve coordination with all affected jurisdictions	○	◓	◓	◓	◒	◓	◓	◓	◓
Facilitate development of coordinated transportation design standards	○	◒	◓	◒	◓	◓	◓	◒	◓
Emphasize facilitation, rather than restriction/regulation of business	○	◓	◓	◓	◒	◓	◓	◓	◓
Ensure cost-effective, fiscally responsible, economically efficient Transportation investment	○	○	◓	◒	◒	◓	●	◓	●
Develop an ongoing public involvement process	○	◓	◓	◓	◓	◓	◓	◓	◓
Overall Achievement of Goal 8	○	◓	◓	◓	◓	◓	◓	◓	◓

Goals & Objectives	**Strategy 1** No-Build	**Strategy 2** Build it at any cost	**Strategy 3** Inter-county Mobility	**Strategy 4** Farm-to-Market	**Strategy 5** Leave the Car at Home	**Strategy 6** Build/Do as Much as Possible	**Strategy 7** Intra-County Mobility	**Strategy 8** Perimeter Roads / New Development Patterns	**Strategy 9** Combination of Intra & Inter County Mobility
Goal 9 Provide a useful plan document									
Accurately reflects existing issues and needs									
Identify methods for funding recommended actions									
Provides clear planning direction									
Extend usable life of facilities									
Develop list of issues for further studies									
Overall Achievement of Goal 9									
OVERALL RATING									

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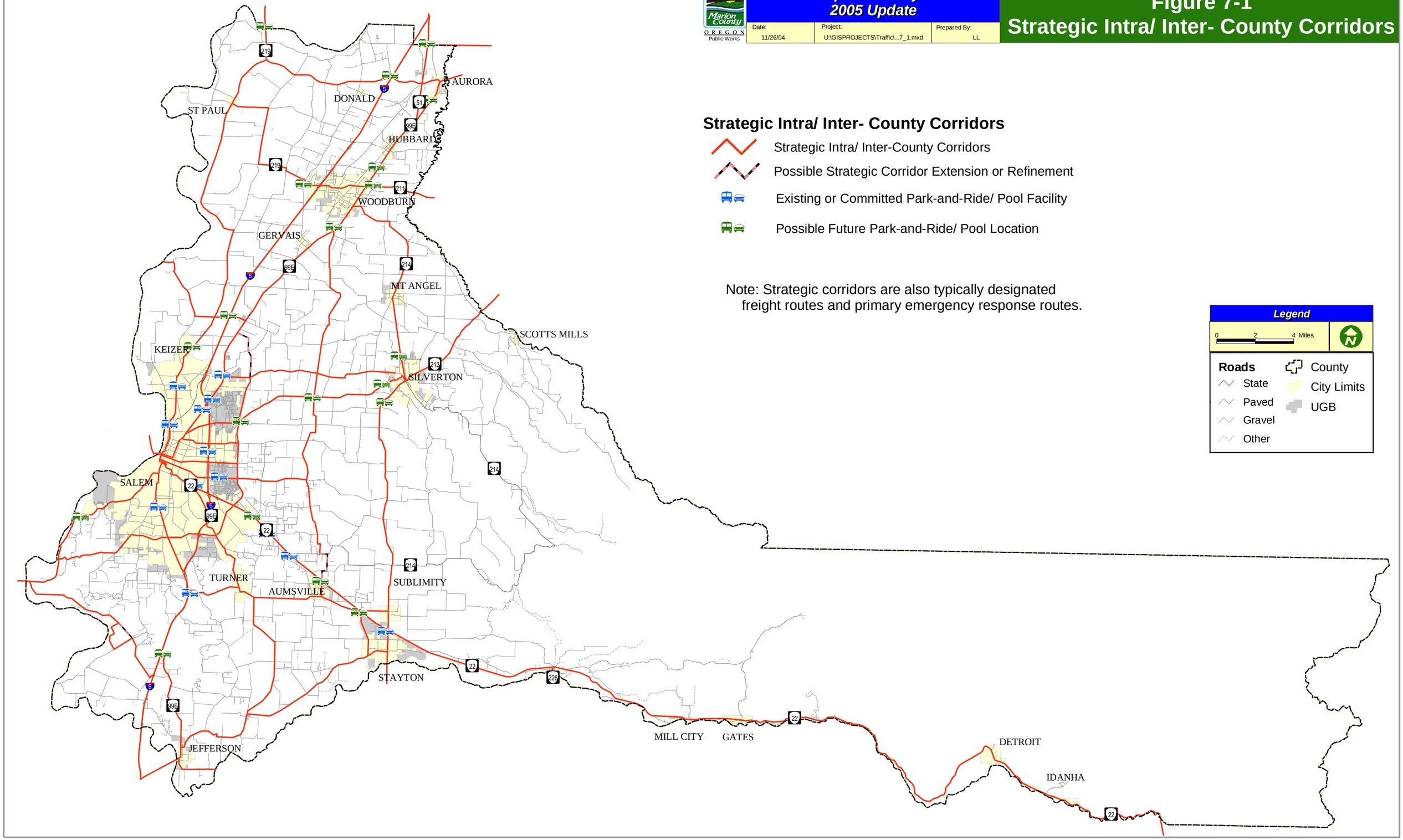
Figure 7-1
Strategic Intra/ Inter- County Corridors

Strategic Intra/ Inter- County Corridors

- Strategic Intra/ Inter-County Corridors
- Possible Strategic Corridor Extension or Refinement
- Existing or Committed Park-and-Ride/ Pool Facility
- Possible Future Park-and-Ride/ Pool Location

Note: Strategic corridors are also typically designated freight routes and primary emergency response routes.



Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

CHAPTER 8: ROADWAY SYSTEM NEEDS AND RECOMMENDED IMPROVEMENTS

The County's rural roadway system is the primary component of the regional transportation system and will continue to serve this function over the next 20 years. To continue in this capacity, a number of enhancements are needed for the safety and mobility of the system. This chapter describes the existing and future needs of the Marion County rural roadway system and the improvements recommended to address those needs. Existing needs include those where projects have already been identified but not completed due to a lack of resources, where current roadway safety or operation standards are not met, and where other issues affect the safety or operation of a County facility.

Future needs are defined as expected deficiencies in capacity or safety that do not warrant immediate attention, but are anticipated to need to be addressed in the next 20 years to preserve mobility and safety.

This chapter also includes transportation improvements that the planning team has identified are necessary to be completed in the next 20 years to maintain the safety and efficiency of the transportation system at an acceptable level.

8.1 CRITERIA FOR IDENTIFICATION OF EXISTING NEEDS

Necessary transportation improvements have been identified through a number of sources. One is the 1998 RTSP, which included an in-depth analysis to identify existing needs and deficiencies. It used a list of issues compiled by input from County staff, the Technical Advisory Committee, the Citizens Review Committee, and citizens attending the public open houses. Another source to determine needs was through issues identified in the public involvement process of the Marion County Growth Management Framework planning effort. Additionally, county staff has also identified new needs since the 1998 RTSP. Those issues that have been sufficiently addressed since they were identified are no longer in this plan.

For each of these issues, County staff has reviewed the location and pertinent data (accident histories, traffic volumes, level of service, geometry, traffic flow characteristics, etc.) and developed the conceptual project that, in staff's judgment, best addresses the issues at that location. For each of these potential projects, a planning level cost estimate has been developed and the project evaluated to determine how it would affect traffic safety and flow in the area.

Each of these potential projects was then evaluated using a project selection matrix developed for this plan. This matrix is based on the following categories:

Safety (45 points)

- Accident rate and frequency
- Severity of accidents
- Potential for life-threatening accidents
- Project safety benefit

Mobility (30 points)

- Benefit to current capacity
- Benefit to future (10-years) capacity
- Reduction of free-flow impedance
- Freight mobility
- Benefit to bicycle and pedestrian mobility

Functional Classification of Roadway (5 points)

Traffic Volume (5 points)

Other Factors (15 points)

- Geometry (curves, skewed intersections, offset intersection approaches, etc.)
- Strategic routes
- Railroad issues
- Road width issues
- Standards not covered elsewhere
- Flooding/road closures
- Effects on other intersections
- Potential emergency use

Project Cost (up to 30 point deduction)

Projects are prioritized based on the number of points they receive in this prioritization matrix.

Each of these projects is listed in **Appendix A** in order of the prioritization score each project received. Although the County would ideally like to address all of the needs, we recognize that many needs exist for which the cost and/or impacts of the solution outweigh the needs it would address, meaning that the solution would not be cost-effective. In addition, there are so many legitimate needs with identified cost-effective solutions that it is highly unlikely that the funding levels and resources will be enough to address all these needs even over the next 20 years.

Many of the needs identified in this chapter are shown based on this prioritization rating and listed in the order of prioritization score. In these cases, the needs that appear towards the top of the list are generally more critical than the needs that appear near the bottom of the list. However, it is inappropriate to assume that a specific need has higher priority over another just because it appears one or two places higher on a list.

8.2 EXISTING COUNTY ROADWAY NEEDS

The most widely used transportation facility in rural Marion County is the extensive network of arterials, major collectors, minor collectors, and local roads. As a result, the majority of needs and deficiencies occur on the roadway system.

8.2.1. Functional Class

The functional classification scheme presented in Section 5 adheres to the principles of the USDOT guidelines and addresses the County's desire to give merit to the idea that people's current travel patterns help determine the function of facilities when viewed in the overall road network. The functional classification system shown in Figure 5-1 has slight revisions to the one adopted with the 1998 Rural Transportation System Plan. **Table 8-1** lists the changes that have been made. Note: this is the same as table 5-2.

Table 8-1
2005 Revisions to Functional Classification System
(Note: Road segments are listed generally from north to south)

Road	From	To	Previous Class	New Class
Arndt Rd	Wilsonville-Hubbard Hwy	Clackamas County	(map typo)	Arterial
Arndt Rd	Butteville	Bents Rd	Major Collector	Minor Collector
Oregon 219	McKay Rd	Yamhill County	Arterial	Principal Arterial
Ehlen Rd / Yergen Rd / McKay Rd	Interstate 5	Oregon 219	Arterial	Principal Arterial
Boones Ferry Rd	Ehlen Rd	Arndt Rd	Minor Collector	Local
Boones Ferry Rd	Crosby Rd	Ehlen Rd	Major Collector	Minor Collector
French Prairie Rd	Oregon 219	McKay Rd	Major Collector	Minor Collector
Parr Rd	Butteville Rd	Woodburn UGB	Major Collector	Minor Collector
French Prairie Rd	River Rd	Oregon 219	Major Collector	Minor Collector
Marquam Rd / Drake Rd	Meridian Rd	Clackamas County	Local	Minor Collector
Quinaby Rd	River Rd NE	Oregon 99E	Local	Minor Collector
Silverton Rd	Salem UGB	Silverton UGB	Arterial	Principal Arterial
Lardon Rd	Cordon Rd	Howell Prairie Rd	Minor Collector	Local
Kaufman Rd	Howell Prairie Rd	Cascade Hwy	Minor Collector	Local
Center St	Cordon Rd	Hampden Ln	Major Collector	Minor Collector
Hampden Ln	Center St	Fruitland Rd	Major Collector	Minor Collector
Fruitland Rd	Hampden Ln	63rd Ave	Major Collector	Minor Collector
Skyline Rd	Vitae Springs Rd	Salem UGB	Arterial	Major Collector
Liberty Rd	Hylo Rd	Salem UGB	Arterial	Major Collector
Mill Creek Rd	Marion Rd	Aumsville UGB	Arterial	Major Collector
Mill Creek Rd	Aumsville UGB	Golf Club Rd	Arterial	Major Collector

West Stayton Rd	Shaff Rd	Aumsville UGB	Major Collector	Minor Collector
Cloverdale Rd	Parrish Gap Rd	Ridgeway Dr	Minor Collector	Local
Belden Dr	West Stayton Rd	Stayton Rd	Minor Collector	Local
West Stayton Rd	Stayton Rd	Shaff Rd	Major Collector	Minor Collector
Buena Vista Rd	Polk County	Sidney Rd	Local	Minor Collector
Talbot Rd	Interstate 5	Buena Vista Rd	Minor Collector	Major Collector
Greensbridge Rd	Jefferson-Marion	Jefferson-Scio Dr	Minor Collector	Local
Oregon 22	Detroit	Linn County	(map typo)	Principal Arterial

8.2.2 Roadway Design Standards

The existing rural roadway design standards (shown in **Table 8-2**) provide geometric guidelines for the planning, design, and construction of roads in Marion County. These standards are included here for reporting purposes only and are not to be considered adopted as part of this plan. Design standards are contained in a separate document that may have been updated since this plan was prepared. For roads adjacent to urban growth boundaries and/or with traffic flow of an urban character, urban geometric design standards can be used. (Urban geometric design standards are not addressed in this rural plan.)

Table 8-2
Existing Rural Geometric Design Standards

FUNCTIONAL CLASS	TYPICAL ADT	MINIMUM RIGHT OF WAY WIDTH	MINIMUM PAVEMENT WIDTH	GRAVEL SHOULDERS (both sides)
Arterial	1,000 - 10,000	66'	28'	2'
Collector	500 - 1,000	60'	22'	5'
Local	0 – 500	60'	22'	5'

From the review of the physical characteristics in subsequent sections (8.2.3 and 8.2.4), it is evident that a substantial portion of the County roadway system does not meet the existing rural geometric design standards. While it is desirable to have all roads conform to these standards, a substantial portion of County roads were built prior to their development. In order to protect valuable farmlands and environmentally sensitive areas, as well as our intention to effectively use the resources we've been entrusted with, the County does not intend to improve all of the roads to the existing standards. Roadways will be improved when it is necessary to improve safety or increase capacity by either reconstructing existing roads or building new ones altogether.

8.2.3 Travel Lane Widths

The pavement width information collected in the roadway inventory was compared to the existing rural geometric design standards. It was found that approximately 703 miles, or 71 percent, of rural roads have travel lane widths that do not meet existing standards. **Table 8-3** shows the number of roadway miles (by functional class) that do not meet existing standards.

Table 8-3
Roadway Miles Not Meeting Existing Travel Lane Width Standards

FUNCTIONAL CLASS	TOTAL MILES	MILES NOT MEETING EXISTING STANDARDS	PERCENT NOT MEETING EXISTING STANDARDS
Arterials	89	20	22%
Major Collectors	109	41	38%
Minor Collectors	171	121	71%
Locals	621	521	84%

As evidenced in **Table 8-3**, many miles of roads, particularly local roads and minor collectors, do not meet existing travel lane width standards. The vast majority of these roads were constructed before these standards were implemented. On the other hand, the majority of arterial miles and major collector miles have pavement widths that meet existing standards.

On many of the arterial and collector sections not meeting standards, widening has been identified as a need for safety, capacity, or operational reasons. However, for many of these sections of roadway (especially minor collectors and local roads), the cost, disruption, and impact of widening these roads outweighs the benefit that would be obtained by widening them and therefore is not cost-effective. It is still appropriate and beneficial when the county or developers are constructing new roads that they meet these standards.

8.2.4 Shoulder Widths

Shoulder width is defined as the width of the area outside the designated travel lanes that is available to be safely traversed for emergency or recovery use by vehicles that have strayed from the travel lanes. Some shoulders are paved, but most are gravel. Existing shoulder widths were measured and compared to those specified in the rural geometric design standards. Again, it was found that most roads do not meet current standards. Approximately 804 miles, or 81 percent, of rural roads have shoulder widths that do not meet the standards. **Table 8-4** shows the number of roadway miles (by functional class) that do not meet existing shoulder width standards.

Table 8-4
Roadway Miles Not Meeting Existing Shoulder Width Standards

FUNCTIONAL CLASS	TOTAL MILES	MILES NOT MEETING EXISTING STANDARDS	PERCENT NOT MEETING EXISTING STANDARDS
Arterials	89	10	11%
Major Collectors	109	72	66%
Minor Collectors	171	152	89%
Locals	621	570	92%

In reviewing these numbers, most of the shoulder width deficiencies occur on collectors and local roads. The majority of arterial miles do meet existing shoulder width standards.

On many of these sections not meeting standards, widening has been identified as a need for safety, capacity, or operational reasons. These potential projects will be discussed later in this section and have been considered in the process to determine the fiscally constrained Transportation System Plan. However, for many of these sections of roadway and shoulder, the cost, disruption, and impact of widening or providing these shoulders outweighs the benefit that would be obtained by widening them. Thus, while it would be appropriate and beneficial to construct new roads and shoulders to meet these standards, it would not be beneficial to widen these segments of existing roadways to meet the current standard.

8.2.5 Surface Type

Of the 990 miles of rural roads in the County, approximately 197 have gravel surfaces. Gravel roads are not considered to be deficiencies just because they are unpaved and it is not the County's goal to pave all gravel roads.

Many years ago, the County operated a program to pave gravel roads based on their significance to the road network and the feasibility of paving them. This program was discontinued for lack of funding. In the past, the County also operated a Macadam Local Improvement District (LID) program in which the majority of property owners along a road could request Public Works to pave their road and subsidize part of the cost. This program has also been discontinued due to lack of funding. However, it is the County's goal to provide options for residents to pave their road with their resources.

It is the County's goal to pursue paving of some gravel roads but we do not plan to do so at this time due to lack of funding.

8.2.6 Right-of-Way Width

Right-of-way width information collected in the roadway inventory was compared to the existing rural geometric design standards. It was found that approximately 630 miles, or 64 percent, of rural roads have right-of-way widths that do not meet existing standards. Right-of-way widening needs are specifically identified in one of two ways. When land use actions such as zone changes or partitionings occur and require dedication to meet the standards for the changed use or when a Capital Improvement Program (CIP) project is initiated. For CIP projects, right-of-way needs are determined on a case-by-case basis and are not necessarily based on existing standards, but rather on the right-of-way a project requires. Right-of-way needs are not specifically identified in this plan.

8.2.7 Pavement Condition

Pavement condition deficiencies consist of pavement sections with surface conditions rated "poor" or "very poor." Out of 793 miles of paved rural roads, only 98 miles, or 12.4 percent, of pavement fall into this category. Determining overlay needs, however, are not solely based on the pavement ratings. Other factors are also considered in determining overlay needs such as functional class of the roadway, traffic volume, truck percentage, existing surface width, traffic patterns, special use (recreational use, commercial use, etc.), and available budget.

Pavement maintenance needs are slightly different than overlay needs in that pavement maintenance needs are determined by identifying sections that can be treated to prevent the "poor" condition. In many cases, adding relatively thin (such as two-inch thick) pavement overlays on pavement in 'fair' or even 'good' condition saves money in the long run because it reduces the need for the thicker overlays or reconstruction that becomes necessary when pavement reaches 'poor' or 'very poor' condition. Specific paving and overlay needs are identified separately in Marion County's Pavement Management Program. This Transportation System Plan will include budgeted money necessary for these paving and overlay projects, but will not designate specific projects that it will be spent on. However, any project that significantly alters the 'footprint' of the roadway will be considered a capital improvement project, and thus is appropriate for discussion in this plan.

8.2.8 Safety Projects

Locations that represent safety concerns due to accidents, sight distance, configuration, or other safety concerns are listed in **Table 8-5**. These projects are listed in the order of priority with the more critical projects appearing at the top of the table and the less critical needs appearing towards the bottom of the table. Although the County would like to address all of these safety concerns, the limited amount of funding makes it unlikely that all of these safety needs will be addressed over the next 20 years.

Many funding programs award grants for safety projects based on their accident history. In order to take advantage of this type of funding, projects may be completed in an order different than shown, or other projects may be added if, due to their accident history, they become eligible for funding.

Table 8-5
Safety Projects

FACILITY	LOCATION	SAFETY ISSUE	NEED
RECOMMENDED PROJECTS			
Cordon Rd	Pennsylvania Ave	Rear-end accidents	Left turn lane on Cordon
Ehlen Rd	Boones Ferry Rd and Hwy 551	Congestion; Traffic queues from State Hwy intersection frequently block Boones Ferry	Left Turn Lane on Ehlen; possible realignment; possible traffic signal at Boones Ferry coordinated with State Hwy signal
Cordon Rd	Auburn Rd	Accidents; need more gaps for vehicles pulling out from Auburn	Traffic signal at intersection
Cordon Rd	Herrin Rd	Rear-end and Left-turning Accidents	Left turn lane on Cordon; possibly raise Herrin Rd bridge and approach
Cordon Rd	Hayesville Dr	Rear-end and left-turning accidents	Left turn lane on Cordon
Brooklake Rd	Wheatland Rd	Accidents; vehicles driving off end of road	ITS Safety – speeding (nonstopping) vehicle warning

FACILITY	LOCATION	SAFETY ISSUE	NEED
Bents Rd	Ehlen Rd	Congestion; Intersection is very close to intersection with I-5 ramps	Move Bents Rd west and perhaps signalize its intersection with Ehlen Rd; could be combined with a State interchange reconstruction project; may involve access management on Ehlen Rd.
Butteville Rd	P & W Railroad	RR crossing without gates on Major Collector	Gates at crossing, possible realignment
Cordon Rd	Swegle Rd	Developing need for gaps for traffic pulling out from Swegle	Traffic signal at intersection
River Rd South	Orville Rd / BNRR Bridge	Sharp curves, narrow roadway, skewed intersection	Realign roadway to cross railroad at grade (no bridge); reconfigure Orville Rd intersection
Butteville Rd	Crosby Rd	Offset Intersection	Cross Intersection
Cordon Rd	Ward Dr	Anticipated rear-end and left-turning accidents	Left turn lane on Cordon
Cordon Rd	Carolina Ave / Indiana Ave	Rear-end and left-turning accidents	Left turn lane on Cordon
Silverton Rd	64th Place	Rear-end and pull-out accidents	Left turn lane on Silverton Rd and straighten skew of 64th at intersection
River Rd South	BNRR Bridge (northern bridge)	Sharp curves, narrow roadway	Realign roadway to cross railroad at grade (no bridge)
54th Ave NE	near Lakeside Dr (across Lake Labish)	Narrow Road	Widen roadway; add gravel shoulder
Cordon Rd	Kale St	Rear-end and left-turning accidents	Left turn lane on Cordon
River Rd S	Riverdale Rd (Roberts)	Configuration	Reconfigure Intersection
Skyline Rd	Vitae Springs Rd	Skewed intersection, poor grade	Vertical and horizontal realignment
Howell Prairie Rd	Lardon Rd / Kaufman Rd	Offset Intersection	Cross Intersection
Mill Creek Rd	Bishop Rd / Leverman Rd	Configuration	Reconfigure Intersection
Yergen Rd	Donald Road	Unusual Y-Intersection; skew at western connection	Realign Intersection
Wintercreek Rd	Skelton Rd	Vertical Curve / Visibility	Cut/Fill Raise Intersection
Cascade Hwy	Evergreen Rd / Evergreen School	Vertical Curve / Visibility	Flatten vertical curve
Delaney Rd	Parrish Gap Rd	Vertical Curve / Visibility	Vertical Realignment; could be combined with Delaney/Battle Creek Project
Sublimity Rd	Chemeketa C.C. and Festival Grounds	Rear-end and left-turning accident potential	Left turn lane on Sublimity Rd

FACILITY	LOCATION	SAFETY ISSUE	NEED
65th Ave NE	Across Lake Labish	Narrow Road	Widen roadway; add gravel shoulder
35th Ave	Perkins St	Configuration	Reconfigure Intersection
Meridian Rd	Mt. Angel-Scotts Mills Rd / East College Rd	Awkward Y-intersections	Convert to T-intersections, possible horizontal realignment
70th Ave	Mill Creek Rd	Tight turning radius with bridge rail	Move 70th Ave to west
Aumsville Hwy	Witzel Rd	Sight distance, vertical curves	Vertical realignment
Cascade Hwy	Kaufman Rd	Skewed approach	Reconfigure approach
River Rd NE	Waconda Rd	Rear-end, Left turning accidents	Left Turn Lanes on River Rd
Butteville Rd	Parr Rd	Grades on approaches	Rebuild Intersection
ADDITIONAL IDENTIFIED NEEDS			
Boones Ferry Rd	Broadacres Rd	Vertical and horizontal curves	Vertical and horizontal realignment
Riverside Rd	BNRR Bridge	Sharp Curves, Narrow Bridge	Realign roadway and/or rebuild bridge
Hylo Rd	Champion Hill Rd	Vertical Curves; Visibility	Vertical realignment
Cascade Hwy	Riches Rd	Curvature	Flatten and smooth curves
Rees Hill Rd	Rainbow Drive	Visibility; intersection location	Move intersection
River Rd S	Riverdale Rd Connector	Low clearance; narrow underpass	Close road section
Meridian Rd	Abiqua Rd	Y-intersection	Convert to T-intersection
Skyline Rd	Cole Rd	Vertical curve; visibility	Vertical realignment
River Rd	Davidson Rd	Vertical curve; visibility	Vertical realignment
Riverdale Rd	Vitae Springs Rd	Sight distance, vertical and horizontal curves	Vertical and horizontal realignment
Aumsville Hwy	Joseph St	Y-intersection	Convert to T-intersection
Ankeny Hill Rd	Wintel Rd	Intersection configuration	Reconfigure intersection
Shaw Hwy	Brownell Rd	Accidents, sight distance	Convert to T-intersection, remove wing roads
Abiqua Rd	South of Briar Knob Lp	Steep slope near edge of roadway	Install guardrail

FACILITY	LOCATION	SAFETY ISSUE	NEED
West Stayton Rd	Shaff Rd	Intersection configuration	Reconfigure intersection
Cascade Hwy	Stadeli Ln	Curve; visibility	Excavation work
Parrish Gap Rd	Ridgeway	Vertical curve; visibility	Excavation work
Riverside Rd	Skyline Rd	Skewed intersection, visibility, vertical curve	Vertical and horizontal realignment
Riverdale Rd	Halls Ferry Rd	Vertical and horizontal curves; visibility	Vertical and horizontal realignment
Jory Hill Rd	O'brien Rd	Vertical curve; visibility	Vertical realignment
Crooked Finger Rd	McKillop Rd	Curvature; visibility; Y-intersection	Reconfigure intersection
Lardon Rd	near 55th Ave	Sharp curves	Realign road

8.2.9 Intersection Traffic Control and Modernization

Intersection traffic control needs include signals, turn lanes, reconfiguration of approaches, and changes to through traffic movement. These needs are related more to operational problems than safety problems, even though most of these cases also involve some aspect of safety. These needs are identified in **Table 8-6**. For the most part, these needs are listed in the order of priority with the more critical needs appearing at the top of the table and the less critical needs appearing towards the bottom of the table. Note that all proposed traffic signals meet signal warrants.

Table 8-6
Intersection Traffic Control and Modernization Needs

FACILITY	LOCATION	PROBLEM	NEED
RECOMMENDED PROJECTS			
Arndt Rd	Airport Rd	Delay; Poor level of service	Traffic signal at intersection; coordinate with nearby state hwy signal and add lane on Arndt between signals[1]
Cordon Rd	MacLeay Rd	Congestion	Traffic signal at intersection
Silverton Rd	Howell Prairie Rd	Developing congestion on Silverton Rd; 4-way stop impedes corridor movement	Traffic signal and left turn lanes at intersection
Delaney Rd	Battle Creek Rd	Poor alignment, narrow bridge, heavy turning movements	Horizontal realignment and bridge replacement

[1] This project is programmed for 2005 construction in the Oregon Department of Transportation Statewide Improvement Program (STIP) with some Oregon Transportation Investment Act (OTIA) funding.

Hazelgreen Rd	62nd Ave	Y-intersection on Collector approach to Arterial	Convert to T-intersection
Mt. Angel-Gervais Rd	Howell Prairie Rd	Curves and Y-intersections	Horizontal realignment, convert to T-intersection(s)
ADDITIONAL IDENTIFIED NEEDS			
Sunnyview Rd	Howell Prairie Rd	Wing roads	Remove wing roads
Mt. Angel Hwy	Hook Rd	Wing roads	Remove wing roads
Howell Prairie Rd	Rambler Dr	Y-intersection	Convert to T-intersection
Howell Prairie Rd	Waconda Rd	Y-intersection	Convert to T-intersection
Meridian Rd	Downs Rd	Y-intersection	Convert to T-intersection
Woodburn-Monitor Rd	Monitor-McKee Rd	Right turn permitted	Update traffic control
65th Ave	Labish Center Rd	Intersection configuration	Reconfigure intersection
West Stayton Rd	Darley Rd	Y-intersection	Convert to T-intersection
54th Ave	Lakeside Dr	Unnecessary all-way-stop	Convert to 2-way stop
Parrish Gap Rd	Hennies Rd	Y-intersection	Convert to T-intersection
Parrish Gap Rd	Summit Loop	Y-intersection	Convert to T-intersection

8.2.10 Pavement Widening for Modernization

Pavement widening involves increasing the paved surface of the travel lanes or shoulders (or both) to provide better traveling conditions for the public, and to reduce the probability of motorists running off the road or encroaching upon opposing traffic. These locations generally consist of roads with narrow lanes and/or sharp curves that are unsuitable for the volume and speed of traffic. Other locations involve narrow roads with regular truck traffic that present uncomfortable conditions to truck drivers and other motorists. Paved shoulders or wider travel lanes at these locations would reduce the chances of drivers running off the road and reduce the chances of conflict between opposing traffic. Roadway segments in need of wider pavement surfaces are listed in **Table 8-7**.

Table 8-7
Pavement Widening for Modernization Needs

FACILITY	FUNCTIONAL CLASS	FROM	TO
RECOMMENDED PROJECTS			
Delaney Rd	Arterial	Battlecreek Bridge	Turner UGB
Boones Ferry Rd	Major Collector	Woodburn UGB	Crosby Rd
Jefferson-Marion Rd	Arterial	Jefferson UGB	Marion community
Stayton Rd	Arterial	Marion community	Stayton UGB
Vitae Springs Rd	Major Collector	Skyline Rd	Orville Rd
Mill Creek Rd	Major Collector	Marion Rd	Aumsville UGB
Vitae Springs Rd	Major Collector	Orville Rd	River Rd S
State St	Arterial	63rd Avenue	Howell Prairie Rd
Woodburn-Hubbard Rd	Major Collector	Woodburn UGB	Hubbard UGB
ADDITIONAL IDENTIFIED NEEDS			
Meridian Rd	Major Collector	Silverton UGB	County Line
River Rd NE	Arterial	Straighten curves .7 mi W of French Prairie Rd	1.5 mi W of French Prairie Rd
Riverside Rd	Minor Collector	Skyline Rd	BNRR Bridge
Hobart Rd	Minor Collector	Mt. Angel Hwy	Oregon 214
Arndt Rd	Major / Minor Collector	Butteville Rd	Wilsonville-Hubbard Hwy
Shaw Hwy	Minor Collector	Aumsville UGB	Hwy 214
Marion Rd	Major Collector	Shaff Rd	Mill Creek Rd
Shaff Rd	Minor Collector	Marion Rd	West Stayton Rd

8.2.11 Truck Routes

The two existing truck routes in the County function fairly well. New truck routes in the County would not be particularly effective because much of the local truck traffic is conducting business

throughout the County. Truck routes are most beneficial in routing that portion of truck traffic that is merely passing through the County en-route to a destination outside of the County. They tend to stay on Principal Arterials such as Interstate 5, Oregon 22, some of the secondary state highways like Oregon 213 and Oregon 211, and County Arterials such as Ehlen/Yergen/McKay Roads, Silverton Road, Cascade Highway, and River Road NE. Another group of trucks that are affected are those that need to use County Roads to bypass restrictions on the State Highway system.

Due to the agricultural nature of Marion County, most of the truck traffic on non-regional routes is conducting business in the local area. Attempts to prohibit these trucks from using County roads, which often run through some of the smaller cities, are not in the best interest of the overall transportation system. There are some exceptions to this. Two such exceptions were addressed in the rural areas by installing "No Through Trucks" postings rather than by creating a specific regulatory truck route. In both cases, the use of the particular roads by trucks was extremely disruptive to the adjacent residential neighborhoods and suitable alternative routes of higher design and classification were available.

There are also many roads, particularly minor collectors and local roads, but some major collectors and arterials, which are not suitable for trucks because of the roadway geometry or topography. These locations have been designated as 'red routes,' with signs posted instructing truckers driving vehicles larger than the limits to avoid them. It is possible for trucks longer than these limits to make local deliveries on these roads if they can show they can make the delivery safely and appropriately. Suitable alternate routes exist for freight traffic to and from most areas.

8.2.12 Bridges

Rehabilitation and replacement of deficient bridges is typically done on an as-needed basis. Bridges are inspected regularly (typically every two years), and a sufficiency rating is determined for each bridge. This sufficiency rating (on a scale of 0 to 100) is an assessment of the structural sufficiency of the bridge. Bridge rehabilitation or replacement is typically determined by this rating. Bridges with ratings below 50 (out of 100) are eligible for federal grant funding through the state for replacement. Currently, most of our bridge replacements are done with this grant funding.

Rural bridge deficiencies for purposes of this plan include: bridges with sufficiency ratings below 50; bridges with weight, height, and/or width limitations located on significant regional routes; and bridges with other problems such as poor alignment or narrow width on arterials and major collectors. **Table 8-8** provides a list of rural bridges with sufficiency ratings less than 50. Not all of the bridges listed in **Table 8-8** are being considered for replacement. However, the limitations of these bridges do point out the need for further evaluation.

As the years go by, the sufficiency rating of each bridge tends to decrease, as the bridge wears out from use. Over the next 20 years, it is anticipated that many bridges will require rehabilitation or replacement and funding for this effort will be a serious problem due to the large capital improvement cost.

Table 8-8
Rural Bridges with Sufficiency Ratings Below 50

BRIDGE NO.	FACILITY	FEATURE CROSSED	SUFF. RATING	OTHER LIMITATIONS	FUNCTIONAL CLASS
RECOMMENDED PROJECTS					
1106	Jefferson-Marion Rd	UP Railroad	47.5	Weight 40 Ton	Arterial
5789	River Rd S	Willamette River	43.2	Weight 40 Ton Scour Issue	Arterial
4753	South Abiqua Rd	Abiqua Creek	43.1		Local
962	Silverton Rd	Little Pudding River	45.4		Principal Arterial
ADDITIONAL IDENTIFIED NEEDS					
5381	Gallon House Rd	Abiqua Creek	38.9	Weight 20 Ton	Local

Table 8-9 lists bridges that have sufficiency ratings greater than 50 but have other limitations that need to be evaluated.

Table 8-9
Additional Bridges with Other Limitations (Sufficiency Ratings Greater than 50)

BRIDGE NO.	FACILITY	FEATURE CROSSED	LIMITATIONS	FUNCTIONAL CLASS
RECOMMENDED PROJECTS				
4722	Mt. Angel-Gervais Rd	Pudding River	Weight Limit 20/38/39 Ton	Minor Collector
1502	Marion Rd	Mill Creek	Low Sufficiency Rating	Major Collector
47C66	Delaney Rd	Battle Creek	Narrow Bridge, Poor Horizontal Alignment	Arterial
5387	Hazelgreen Rd	Pudding River	High Water can go over roadway	Arterial
4711	Ferry Rd	Stout Creek	Alignment, Width, Operating Rating	Local
47C101	Sunnyside Rd	Rodgers Creek	Narrow Bridge, Poor Alignment	Local
47C06	Whiskey Hill Rd	Overflow Pudding River	Narrow Bridge	Major Collector
ADDITIONAL IDENTIFIED NEEDS				
47C49	Labish Center Rd	Little Pudding River	Weight Limit 40 Ton	Minor Collector
47C25	Golf Club Rd	Mill Creek	Narrow Bridge (would be replaced by a capacity widening project)	Arterial

8.2.13 Other Road Restrictions

Height restrictions (below typically legal dimensions) are created on County roads by four railroad bridges. These railroad bridges also have sharp curves to pass under them, which create severe alignment deficiencies at their under-crossings. **Table 8-10** lists the height deficiencies at these bridges.

Table 8-10
Structures Restricting County Roads

FACILITY	BRIDGE	DEFICIENCY	NEED
RECOMMENDED PROJECTS			
River Rd S (near Orville Rd)	BN-Sante Fe Railroad Bridge Undercrossing	Height Restriction 12' 3" Poor Road Alignment	Reconstruct bridge and improve roadway alignment
River Rd S (south of Sawmill Rd)	BN-Sante Fe Railroad Bridge Undercrossing	Height Restriction 12' 9" Poor Road Alignment	Reconstruct bridge and improve roadway alignment
ADDITIONAL IDENTIFIED NEEDS			
Riverside Rd	BN-Sante Fe Railroad Bridge Undercrossing	Height Restriction 11' 0" Poor Road Alignment	Grade Xing or improve alignment
Riverdale Rd (Connector)	BN-Sante Fe Railroad Bridge Undercrossing	Height Restriction 9' 4" Poor Road Alignment	Evaluate closing section of road under bridge

8.2.14 Railroad Grade Crossing Projects

Rural grade crossing recommended projects include arterials and major collectors with no gates or signals, and all roads with no control at a crossing where train traffic exists. Some locations on lightly used local roads function acceptably with stop signs. However, there are many locations where stop signs on collectors and more-heavily-used local roads at railroad crossings cause unnecessary delay and safety concerns that could be reduced by installing gates at these crossings. These deficiencies are listed in **Table 8-11**.

Table 8-11
Grade Crossing Projects

FACILITY	CROSSING	DEFICIENCY	FUNCTIONAL CLASS
RECOMMENDED PROJECTS			
Butteville Rd	Portland and Western Railroad	No control and poor alignment	Major Collector
St. Louis Rd	Portland and Western Railroad	Stop signs; accidents	Minor Collector

FACILITY	CROSSING	DEFICIENCY	FUNCTIONAL CLASS
Broadacres Rd	Portland and Western Railroad	Stop Signs	Local
Waconda Rd	Portland and Western Railroad	Stop Signs	Minor Collector
Brush Creek Rd	Willamette Valley Railroad	No control	Local
Sunnyview Rd	Willamette Valley Railroad	Stop Signs	Minor Collector
McKee School Rd	Willamette Valley Railroad	No control	Local
Bates Rd	Willamette Valley Railroad	No control	Local
Porter Rd	Willamette Valley Railroad	No control	Local
MacLeay Rd	Willamette Valley Railroad	Stop Signs	Minor Collector
Shaff Rd	Willamette Valley Railroad	Stop Signs	Minor Collector
Downs Rd	Willamette Valley Railroad	No control	Local
Kaufman Rd	Willamette Valley Railroad	Stop Signs	Local
Monitor-McKee Rd	Willamette Valley Railroad	Stop Signs	Local
Paradise Alley	Willamette Valley Railroad	No control	Local
Hook Rd	Willamette Valley Railroad	No control	Local
Talbot Rd	Portland & Western Railroad	Stop Signs	Minor Collector
ADDITIONAL IDENTIFIED NEEDS			
Rainwater Ln	Willamette Valley Railroad	No control	Local
Perkins Rd	Portland & Western Railroad	Stop Signs	Local

8.2.15 Drainage Deficiencies

Drainage deficiencies include locations where regular widespread high water results in water over the roadway or where surface water accumulates on the roadway during heavy rains. These deficiencies are identified in **Table 8-12.** Projects are prioritized by frequency and severity of drainage issues, importance of the road, detrimental effects of detouring around closures, and cost to address the issue. Drainage deficiencies within urban growth boundaries are not included in this plan. The County also does not work on private property to improve or maintain drainage.

Table 8-12
Drainage Deficiencies

FACILITY	LOCATION	PROBLEM	FUNCTIONAL CLASS
RECOMMENDED PROJECTS			
Hazelgreen Rd	East of Torvend Rd (near Pudding River)	Widespread high water results in water over roadway.	Arterial
ADDITIONAL IDENTIFIED NEEDS			
Delaney Rd	Locations east and west of Battle Creek	Widespread high water results in water over roadway.	Arterial
Jefferson-Marion Rd	East of Skelton Rd	Widespread high water results in water over roadway.	Arterial
Meridian Rd	South of Mt. Angel - Scotts Mills Rd	Widespread high water results in water over roadway.	Major Collector
River Rd N	South of Brooklake Rd	Widespread high water results in water over roadway.	Arterial

For many of these identified drainage deficiencies the solution would be costly. Therefore, very few are listed as recommended projects. Some will be considered as part of other projects and addressed at that time.

Section 8-2 has listed the currently identified needs for the Marion County transportation system. Many more needs are expected to develop in the future, and are described in Section 8-5.

8.3 BICYCLE AND PEDESTRIAN IMPROVEMENTS

In conjunction with the 1998 RTSP, the County developed a separate *Bicycle and Pedestrian Plan* to address bicycle and pedestrian transportation over the next 20 years. As part of this 2005 update process, that plan was reviewed and found to still adequately address the needs for bicycle and pedestrian travel in rural Marion County. The Bicycle and Pedestrian Plan will remain as the principal document for addressing these needs. This section provides a summary of the key components from that plan.

The plan and this section address goals from the adopted Growth Management Framework to:
1) Encourage use of alternative modes of transportation including mass transit, bicycling, walking, and carpooling.
2) Address transportation needs appropriate to both urban and rural areas throughout the county.

The purpose of the *Bicycle and Pedestrian Plan* is to assess the needs to facilitate bicycling and walking as a viable means of transportation through appropriate policies and improvements. The plan identifies existing and future bicycle and pedestrian needs and contains a prioritization system to rank the needs in order of significance and benefit. In addition, the plan provides descriptions of projects to address the higher priority needs.

8.3.1 Bicycle and Pedestrian Needs

With approximately 990 miles of rural roads in the County, it would be extremely costly to provide bicycle and pedestrian facilities on every road. In addition, the County has many miles of urban roadway that generally has a higher demand for bicycle and pedestrian transportation than rural roadways. In order to maximize available resources, the County will focus its efforts towards providing suitable facilities on arterials and collectors that have appreciable existing or potential bicycle and pedestrian traffic, and will particularly focus on facilities in urban areas. Local roads for the most part will continue to be shared roadways where motorists, bicyclists, and pedestrians share the travel lanes. In many instances, gravel shoulders are available for pedestrians on County roads. Even by focusing only on arterials and collectors, the planning team compiled a large collection of locations where bicycle and pedestrian facilities could be beneficial.

To sort through all of the potential locations, the County developed a prioritization system to identify the top candidates for improvements. The prioritization system used to determine bicycle and pedestrian needs considers eleven different criteria and assigns points for each criterion. The eleven criteria used for the prioritization system are described below.

- Trip generation potential of surrounding area
- Trip attraction potential of surrounding area and attractiveness of the route
- Topography of the route
- Connectivity to population centers, existing bicycle/pedestrian facilities, and major transportation links
- Duplication of facilities
- Location of attractive alternate routes
- Pavement condition
- Average daily traffic (ADT)

- Width of existing paved shoulder
- Functional classification
- Strategic Intra-/Inter-County corridors

The total number of points from all of the criteria provides a ranking of the bicycle/pedestrian needs. A total of 112 roadway segments were evaluated based on existing or potential bicycle and pedestrian use. It was determined that of the 112 locations, those that received a rating of 50 points or more would be considered as applicable 20-year bicycle/pedestrian needs. **Table 8-13** lists the recommended improvements based on this prioritization system. This table has been updated for 2005.

Table 8-13
Bicycle and Pedestrian Improvement Needs

FACILITY	FROM	TO	ISSUE
RECOMMENDED PROJECTS			
Arndt Rd *	Wilsonville - Hubbard Hwy	Airport Rd	High vehicular traffic volume; little or no shoulder
Boones Ferry Rd *	Woodburn UGB	Crosby Rd	High vehicular traffic volume; little or no shoulder
Marion Rd *	Turner UGB	Mill Creek Rd	High vehicular traffic volume; little or no shoulder on south side
Stayton Rd *	West Stayton Rd	Stayton UGB	High vehicular traffic volume; little or no shoulder
State St *	63rd Ave	Howell Prairie Rd	High vehicular traffic volume; little or no shoulder
Woodburn-Hubbard Rd *	Woodburn UGB	Hubbard UGB	Connects trip generators and attractors; High vehicular traffic volume; little or no shoulder
Center St / Hampden Ln / Fruitland Rd	Cordon Rd	63rd Avenue	Connects unincorporated community (Fruitland) to major trip generator (Salem); little or no shoulder

* These segments have also been identified as safety widening improvements (See Table 8-10). By pursuing these projects, the County can provide benefits to both motorists and bicyclists/pedestrians.

Although the prioritization system is intended to rank the segments based on needs and benefits, some improvements can benefit a larger portion of the community and therefore are more desirable to pursue. The projects identified by an "*" in **Table 8-13** indicate improvements that have also been identified as safety widening projects, which benefit motorists as well as bicyclists and pedestrians. In essence, these projects serve two roles: 1) improving safety for motorists and 2) providing mobility and improving safety for bicyclists and pedestrians. For that reason, these improvements are more cost-effective in serving a greater number of roadway users.

8.4 SPECIAL STUDIES AND LOCALIZED PLANS

This Transportation System Plan provides a general picture of the transportation system of Marion County and our vision for this system for the next twenty years. There are several areas for which more detailed planning is warranted, such as unincorporated communities, and areas where significant development activity is expected. There are also several corridors that merit further study to evaluate their viability as transportation corridors, evaluate the potential demand for travel in these corridors, and to determine whether or not these roadways should be improved. This section describes the future planning efforts to be undertaken.

8.4.1 Sub-Area Plans

These plans will be smaller and more detailed plans addressing specific areas in the County. They would be adopted upon their completion as part of a future Transportation System Plan amendment or update. The specific areas they will address are outside urban growth boundaries, and thus not covered by urban transportation system plans. However, detailed planning is appropriate in these areas because of such factors as level of transportation system usage (e.g. high traffic volumes), existing or developing transportation system issues (e.g. traffic problems or lack of sidewalks), and current or anticipated land use. These sub-area plans are detailed documents describing specifically what the transportation system of that area is to be in the coming years. These plans would be prepared by County Staff (and/or ODOT staff for locations involving their facilities) along with input from property owners and other parties as appropriate. These plans are prioritized by the anticipated necessity or benefit of having them in place, and listed in **Table 8–14.** Chapter 12 contains Sub-Area plans for the Brooks interchange area and the Aurora/Donald interchange area. Other Sub-Area plans will be included in Chapter 12 as they are completed. The Sub-Area plan for an area should be completed before significant transportation projects are constructed in that particular area.

Table 8–14
Sub–Area Plans

SUB - AREA	ISSUES INVOLVED
RECOMMENDED PROJECTS	
Brooks Community	Community Transportation Plan
Butteville Community	Community Transportation Plan
Mehama Community	Community Transportation Plan
Monitor Community	Community Transportation Plan
Delaney Interchange Area	Traffic flow on and off interstate; access management
Pratum Community	Community Transportation Plan
Marion Community	Community Transportation Plan
St. Louis Community	Community Transportation Plan

8.4.2 Corridor Studies

Corridor studies will look at corridors where there could be significant demand for future travel, and often a considerable demand for freight mobility. In each of these cases there are aspects of the existing roadway, such as out-of-direction travel, curving alignments, narrow pavement, restrictive structures, and delay that may reduce the ability of the corridor to serve this potential significant demand. The possibility exists to improve the roadway to better facilitate movement of people and goods along that corridor. These studies would attempt to determine the future demand for travel along the corridor, and the cost and potential benefit of improving the roadway to service the corridor. The end result of the study will be to recommend whether or not to improve the roadway and, if so, a conceptual idea of what that improvement would be. These studies are listed in **Table 8-15.**

Table 8-15
Recommended Corridor Studies

FACILITY NAME	ENDPOINT	ENDPOINT	CONNECTING	ISSUES
RECOMMENDED PROJECTS				
Cordon Road	Interstate 5	Hazelgreen Road	North-South Route along east side of Salem	Capacity issues imminent; future signal locations; many locations needing turn lanes; access management
Brooklake Road	River Rd NE	Oregon 99E	I-5 interchange, Keizer, Brooks, farmland, and surrounding area	Capacity issues imminent; future signal locations; many locations needing turn lanes; access management
Riverside / Sidney / Ankeny Hill Rds	Independence Bridge	Interstate 5	I-5 to Independence, Monmouth, southern Polk Co. and adjacent farmland	Out-of-direction travel, height and weight restrictions, narrow roads
Mt. Angel – Gervais Rd	Mt. Angel	Gervais	Mt. Angel, Silverton, and surrounding area to Gervais, Interstate 5, and points north and west	Out-of-direction travel, weight restrictions, connections in and through cities
River S. / Orville / Vitae Springs / Skyline Rds	Independence Bridge	Salem	South Salem to Independence, Monmouth, and points south and west	Topography, curvy roads, height and weight restrictions, intersection issues
River Road South	Independence Bridge	Salem	Central Salem to Independence, Monmouth, and points south and west	Connection to river crossing, use as emergency alternate route, Height and weight restrictions, slide area, railroad bridges
55^{th} / 54^{th} Aves and Quail Rd	Hazelgreen Rd	Oregon 99E	Northeast Salem and Cordon Rd to Oregon 99E, Brooks, Woodburn, and points north	Narrow roads, Lake Labish crossing, traffic control, curves

8.5 FUTURE COUNTY ROADWAY NEEDS

The County's population and thus vehicle travel is expected to grow in the next 20 years. Future roadway needs are based on evaluating the possible impacts of the projected 2025 traffic volumes on the transportation system. (Section 6 provides details on the projected volumes and how they were developed.) These projected traffic volumes were used to identify locations where roadway and intersection capacity deficiencies may develop by the year 2025 if no improvements are made during that time. It should be noted that concepts such as expanded transit service, TSM (Transportation System Management – making more efficient use of the existing system) and TDM (Transportation Demand Management – reducing the demand for vehicle travel) strategies, land use planning, and other strategies could help to reduce some of these potential deficiencies. For that reason, these projects will not be planned in detail until these anticipated future needs become identified as actual current needs.

8.5.1 Capacity Needs

Several locations are anticipated to have capacity deficiencies as a result of future growth and may warrant consideration of roadway widening. These possible widening needs consist of adding lanes to increase the capacity of the roadway and are listed in **Table 8-16**. It is understood that a comprehensive study would be needed before any one of these future widening improvements are pursued. Such a study would include looking at public transportation improvements, TSM and TDM techniques, and land use and zoning strategies.

Table 8-16
Future Widening for Capacity Needs

FACILITY	FROM	TO	NEED
RECOMMENDED PROJECTS			
Cordon Rd	State St	Center St	Widen to four lanes (with turn lanes at intersections as appropriate)
Cordon Rd	Salem UGB (Caplinger Rd)	State St	Widen to four lanes (with turn lanes at intersections as appropriate)
Cordon Rd	Center St	Sunnyview Rd	Widen to four lanes (with turn lanes at intersections as appropriate)
Cordon Rd	Sunnyview Rd	Silverton Rd	Widen to four lanes (with turn lanes at intersections as appropriate)
Arndt Rd	Wilsonville-Hubbard Hwy	Airport Rd	Widen to four lanes (with turn lanes at intersections as appropriate)
Cascade Hwy	Stayton UGB	Sublimity UGB	Widen to four lanes (would be part of State interchange project)
Silverton Rd	Cordon Rd (Salem UGB)	Indigo St	Widen to four lanes (with turn lanes at intersections as appropriate)
Golf Club Rd	Oregon 22	Stayton UGB	Widen to five lanes (project shown as a need in Stayton TSP).
Silverton Rd	Indigo St	Howell Prairie Rd	Widen to four lanes (with turn lanes at intersections as appropriate)

Brooklake Rd	River Rd	I-5 Interchange	Widen to four lanes (with turn lanes at I-5 interchange and other key locations). (See Note 1)
Silverton Rd	Howell Prairie Rd	Brush Creek Rd	Widen to four lanes (with turn lanes at intersections as appropriate)
Silverton Rd	Brush Creek Rd	Silverton UGB	Widen to four lanes (with turn lanes at intersections as appropriate)

Note 1: This project is not authorized until its need is identified in a Sub-Area plan for the Brooks-Hopmere community

8.5.2 Intersection Traffic Control and Configuration

Projected traffic volumes were also used to identify locations with potential intersection capacity deficiencies and possible traffic control needs. Traffic control needs include signals, turn lanes, and changes to through traffic movement, and are identified in **Table 8-17**. (Intersections with existing needs are not included in this table.)

Table 8-17
Future Intersection Traffic Control and Modernization Needs

FACILITY	LOCATION	PROJECTED PROBLEM	PROBABLE NEED
RECOMMENDED PROJECTS			
Brooklake Rd	River Rd	Developing congestion; Traffic control and location of railroad crossing	Signal, move RR gates, left turn lanes, drainage; possible realignment of intersection.
Cordon Rd	Hazelgreen Rd / 55th Ave	Developing congestion; approach angles	Traffic signal and left turn lanes at intersection
McKay Rd	French Prairie Rd	Future Congestion	Left turn lanes on McKay Rd; Possible Signal
Brooklake Rd	Huff Ave	Future Congestion	Left turn lane on Brooklake Rd; possible signal
Ehlen Rd	Butteville Rd	Future Congestion	Traffic Signal
ADDITIONAL IDENTIFIED NEEDS			
Jefferson-Marion Rd	Parrish Gap Rd	Future Congestion	Eastbound left turn lane
54th Ave NE	Lakeside Rd	Stop impedes movement	Convert to 2-way stop

8.5.3 Connectivity and Modernization Needs Proposed By Cities

In many locations, Marion County's rural transportation system provides critical links to and from the urban transportation systems of the cities within Marion County. There are some

locations where cities have identified revisions to the rural transportation system that would be necessary to meet their identified needs for the urban transportation systems. **Table 8-18** lists projects proposed by cities, including those contained within city Transportation System Plans that would extend into rural areas. These projects would be extensions and/or realignments of existing roads. Each of these projects could encounter many obstacles such as zoning, land use laws, and barriers such as railroads and creeks. It is likely that, for these projects to be realized, funding for them would need to be obtained by the appropriate city.

Table 8-18
Connectivity and Modernization Needs Proposed by Cities

FACILITY	FROM	TO	PROJECT	PROPOSING CITY
NEEDS IDENTIFIED BY CITIES				
Crosby Rd	Woodburn – Hubbard Rd	Oregon 99E	Extend Crosby Road (2 lanes) across railroad and along Goudy Gardens Rd to Oregon 99E	Woodburn
Woodburn Southern Arterial	Woodburn UGB	Oregon 214	Extend the Southern Arterial (2 lanes) from Oregon 99E to Oregon 214	Woodburn
35th Ave	North of Keizer	Keizer UGB	Realign and modernize 35th Ave in correlation with a Keizer project to realign Radiant Drive west of the baseball stadium in the Keizer UGB.	Keizer
9th St	Cascade Hwy	Eastern Sublimity	Extend 9th St east, south of current UGB, as an east-west collector serving eastern Sublimity	Sublimity
North-South Collector	Sublimity Rd (Starr St)	Sublimity Blvd	Construct a new north-south collector west of the Sublimity UGB	Sublimity

8.6 STATE HIGHWAY AND REGIONAL TRANSPORTATION NEEDS

As with the County roadway system, the State highway system is also a critical part of the overall transportation system in the region. Many of the key corridors in the County are State Highways. As part of the original 1998 Rural Transportation System Plan, the Oregon Department of Transportation contracted Marion County to determine the 20-year needs on State highways in the County (except I-5 and Oregon 22, and those inside the Salem, Keizer, and Woodburn urban areas). This 2005 update includes projects on or related to Interstate 5 and Oregon 22 because, as Principal Arterials, those are the most important roadways for traffic movement in the Marion County transportation system, and issues on these roads affect the whole system. However, this plan is not intended to include detailed plans for Interstate 5 or Oregon 22. Those planning efforts would be done by the Oregon Department of Transportation.

In addition to the review of State highway facilities by the County, findings from other transportation planning documents involving State highways are included in Section 3 (Background and Existing Issues) of this plan. As anticipated with limited funding, many of the issues identified in the 1998 planning effort have not been addressed. These issues are repeated here in this 2005 Rural Transportation System Plan Update. In addition, some needs and issues have arisen or come to our attention since then. These issues are listed here as well.

State highway needs include safety and modernization improvements, corridor studies, and refinement studies. Needs on State highways were identified that are in or significantly affect rural areas. It should be noted that the planning of roadway maintenance and bridge preservation improvements are under ODOT's control and are not included in this plan.

8.6.1 State Highway Safety Needs

In evaluating the State Highways in the County, the planning staff identified a number of safety needs that should be reviewed by ODOT. These needs are listed in **Table 8-19**.

Table 8-19
State Highway Safety Needs

FACILITY	LOCATION	PROBLEM	NEED
RECOMMENDED PROJECTS			
I-5 Ramps	Oregon 214 and 219 (Woodburn Interchange)	High number of accidents; congestion at ramp terminals; congestion on 214; queues extending onto freeway mainline	Reconstruct interchange with longer ramps, more capacity, improve safety, and widen 214.[2]
I-5 Ramps	Ehlen Rd / Bents Rd	Accidents; poor alignment between interchange and Bents Rd; Turns from ramps with low capacity and high delay	Widen Ehlen Rd at the interchange, install signals at ramp intersections and turn lanes on ramps, and realign Bents Rd. Or redesign interchange

[2] Note: though this location is within the Woodburn UGB, transportation to and from rural areas of Marion County is affected by this deficiency

FACILITY	LOCATION	PROBLEM	NEED
Wilsonville-Hubbard Hwy	Ehlen Rd / Boones Ferry Rd	Accidents; left-turners block through traffic; Boones Ferry intersection very close to State Hwy alignment	Install left turn lanes for eastbound and westbound traffic; perhaps signalize Boones Ferry Rd intersection and/or move it to the west.
Oregon 99E	Howell Prairie Rd	Accidents	Left turn lane from southbound Oregon 99E to Howell Prairie Rd[3].
Oregon 99E	Boones Ferry Rd	Rear-end and left-turning accidents	Left turn lane from northbound Oregon 99E to Boones Ferry Rd[1]
Oregon 99E	Waconda Rd	Accidents, skewed intersection	Left turn lanes on Oregon 99E; possibly realign Waconda to reduce skew at intersection[1]
Oregon 214	Hobart Rd	Accidents	Traffic signal at intersection.
Oregon 99E	Checkerboard Rd	Accidents	Vertical and horizontal realignment; possible left turn lane
Oregon 214	Elliot Prairie Rd	Accidents	Realign horizontal curves near intersection.
Oregon 214	Brownell Rd	Sight distance, vertical curves	Realign vertical curves and intersection.
Oregon 219	French Prairie Rd / St. Paul Hwy	Accidents; Sharp Curve; Y-Intersections	Realign intersection
ADDITIONAL IDENTIFIED NEEDS			
Jefferson Hwy	Ankeny Hill Rd	Sight distance, vertical curves	Realign vertical curves north of the intersection.
Oregon 214	Monitor-McKee Rd	Accidents	Vertical realignment
Oregon 214	Industrial Way (Mt. Angel)	Accidents, Left Turns	Left turn lane from northbound Oregon 214 to Industrial Way.

8.6.2 State Highway Modernization Needs

Modernization needs consist of capacity, reconfiguration, and other related improvements that improve the efficiency of highway facilities, but are not made for the primary reason of safety. The modernization needs identified by the County are generally isolated to specific locations, where a change will improve the operation of the transportation system in the vicinity, such as turn lanes, intersection realignment, and shoulder widening. None of these modernization needs involve

[3] This project is programmed for 2005 construction in the Oregon Department of Transportation Statewide Improvement Program (STIP).
[1] These projects are programmed for 2005 construction in the Oregon Department of Transportation Statewide Improvement Program (STIP).

additional lanes on highways, other than turn lanes at key intersections. **Table 8-20** lists the state highway modernization needs in the County.

Table 8-20
State Highway Modernization Needs

FACILITY	LOCATION	PROBLEM	NEED
RECOMMENDED PROJECTS			
I-5 Ramps	Brooklake Rd	Congestion; delay; queues backing up to freeway mainline	Install traffic signals and turn lanes at ramp intersections; may need to adjust location of ramps.
Wilsonville-Hubbard Hwy	Arndt Rd	Congestion; long delays; safety concerns with queued traffic near or in travel lanes	Dual left turn lanes from southbound Wilsonville-Hubbard Hwy to Arndt Rd and free right-turn lane from westbound Arndt Rd to Wilsonville-Hubbard Hwy[1].
Oregon 22	Cordon Road	Major Arterial / Parkway and Principal Arterial not connected	New Interchange to allow road system to function as planned[2]
Oregon 22	Cascade Hwy	Stop signs and sharp curves for on-ramps; off-ramp capacity issues	Reconstruct interchange
Interstate 5	Woodburn Area	Delays and slow traffic through Woodburn getting to existing interchange	Improve regional passenger and freight mobility by constructing new interchange and connector roads
Wilsonville-Hubbard Hwy	Oregon 99E to Clackamas County	Narrow Roadway	Widen travel lanes and add shoulder
Oregon 214	Cascade Hwy	Sight distance, inappropriate traffic control for traffic volume splits	Realign intersection and change traffic control.
Oregon 219	Butteville Rd	90 degree curves impede movement along highway; intersections on sharp curves	Realign Oregon 219 to improve intersection(s) with Butteville Rd.
Oregon 213	Silverton to Clackamas County line	Narrow pavement	Widen pavement (shoulder and/or lanes).
Hobart Rd (Truck Route for OR 213)	Oregon 214 to Meridian Rd	Narrow pavement	Widen pavement (shoulder and/or lanes).

[1] This project is programmed for 2005 construction in the Oregon Department of Transportation Statewide Improvement Program (STIP) with some Oregon Transportation Investment Act (OTIA) funding
[2] Note: though this location is within the Salem UGB, transportation to and from rural areas of Marion County is affected by this deficiency

FACILITY	LOCATION	PROBLEM	NEED
ADDITIONAL IDENTIFIED NEEDS			
Jefferson Hwy	I-5 to Talbot Rd	Narrow pavement	Widen pavement (shoulder and/or lanes).
Oregon 214	Silverton to Oregon 22	Narrow pavement	Widen pavement (shoulder and/or lanes).
Oregon 214	Shaw Hwy	Awkward Y-intersection, horizontal curves	Convert to T-intersection, realign Oregon 214.

8.6.3 Connectivity to Interstate and Statewide Highways

Access to Interstate and Statewide Highways (namely Interstate 5 and Oregon 22 for Marion County, as designated by the Oregon Highway Plan) is very important to the economic vitality, freight mobility, and quality of life of the County. The presence of significant congestion, delay, or out-of-direction travel along the Access Route from an area to the Interstate and Statewide Highway system can have significant detrimental effects on that community. This 'Access Route' is defined as the fastest route (that is appropriate to the functional class of a roadway) from that location until one is driving along the Interstate or Statewide Highway in one's intended direction of travel. Travel along this route needs to be quick and efficient. For larger cities, this route needs to be particularly short and quick, while the connection to smaller cities could take longer. Marion County's connectivity to Interstate or Statewide Highways guideline is expressed in **Table 8-21** below, which shows the maximum acceptable travel time between a city and the nearest Interstate or Statewide Highway, based on the population of the city. The acceptable travel time may be increased if the route brings the driver closer to their destination, or reduced if the route requires the driver to travel out-of-direction.

Table 8-21
Connectivity to Interstate or Statewide Highway Guidelines

CITY POPULATION	MAXIMUM TRAVEL TIME GUIDELINE
Less than 1,000	30 minutes
1,000 to 5,000	20 minutes
5,000 to 20,000	15 minutes
20,000 to 50,000	10 minutes
Over 50,000	Access to Arterial within City Limits

An adjustment may be made to these times if most of the delay occurs within the city in question. If the highway passes through or abuts City Limits and the city has good access to that highway, then that city is considered to have acceptable connectivity to the arterial.

If the travel time is greater than the amount shown in the table, the delay in accessing the Interstate or Statewide Highway is longer than acceptable, and this has detrimental effects on residents, businesses, freight movement, and farms in the area. These detrimental effects may take the form of increased transportation costs, loss of business, increased time spent driving, increased crash risk, increased pollution, decreased property value, higher unemployment, and increased out-of-direction travel. Excess delay also puts added stress on the County Road system or city streets, and an appropriate TSM measure would be to get this long-distance and regional traffic to the Interstate or Statewide Highway where it can be better handled.

The vast majority of the 20 cities in Marion County comfortably meet these guidelines. However, travel time from Silverton to I-5 north is seven minutes over the guideline.

8.6.4 Future State Highway Widening for Capacity Needs

Traffic volumes have been increasing throughout Marion County for decades as the County has grown. Because of this growth in traffic volumes, portions of State and Interstate highways in Marion County are developing capacity problems. Volume projections indicate that in addition to the existing problems new capacity issues on some state highways within Marion County will develop over the next 20 years. While improvements at specific locations (Transportation System Management (TSM)), can alleviate some extent of these capacity issues, projections indicate that it will become necessary to add lanes to the following (shown in **Table 8-22)** sections of State Highway in order to maintain adequate traffic flow in the next 20 years.

Table 8-22
State and Interstate Highway Widening Needs for Capacity

HIGHWAY	FROM	TO	NEED
RECOMMENDED PROJECTS			
Interstate 5	Salem	Linn County	Widen to at least three lanes each direction[4]
Oregon 22	Golf Club Rd	Cascade Hwy	Widen to two lanes each direction
Oregon 99E	Woodburn	Wilsonville-Hubbard Hwy	Add an additional travel lane in each direction and a center turn lane or median

[4] Oregon Highway Plan (OHP) mobility standards (based on volume to capacity ratios) are currently exceeded based on 2002 data. It is expected that traffic volumes will continue to grow over the life of the TSP and widening beyond three travel lanes may be justified. When a project is developed, appropriate environmental documentation will be prepared. Through that process, the magnitude of widening necessary will be determined to meet OHP standards. Widening to three lanes in each direction will be the minimum necessary to achieve OHP standards.

HIGHWAY	FROM	TO	NEED
RECOMMENDED PROJECTS			
Wilsonville – Hubbard Hwy	Interstate 5	Arndt Road	Widen to two lanes each direction. Note: although this project would be predominantly within Clackamas County, it is adjacent to and significantly affects roadways in Marion County
Interstate 5	Salem	Clackamas County	Additional capacity may become necessary within 20 years
Oregon 99E	Salem	Woodburn	Add a center turn lane and/or an additional travel lane in each direction

8.6.5 Corridor Studies

Several State highways provide the 'backbone' of the regional transportation system by making important connections within the County and outside the County. In order to ensure that these highways continue to serve these functions in the future, corridor studies are needed to maintain the accessibility, safety, and mobility along these routes. It is anticipated that findings from these corridor studies will help to identify specific highway improvements that are needed in subsequent updates of the transportation plan. **Table 8-23** lists corridor studies needed for State highways.

Table 8-23
Corridor Studies on State Highways

CORRIDOR	DESCRIPTION
RECOMMENDED PROJECTS	
Connections to and from Interstate 5	I-5 serves as the primary transportation corridor through the County. It provides access between several cities in the County as well as access to places outside the County. Many interchanges within or adjacent to the County have developed capacity issues at the interchange and also in areas leading to the interchange. Additionally, especially in northern Marion County, the wide spacing and long distances between interchanges necessitates considerable out-of-direction travel in order to use the Interstate. This study is needed to look at possible interchange revisions (excluding the Woodburn interchange which is being done separately).

CORRIDOR	DESCRIPTION
RECOMMENDED PROJECTS	
Oregon 99E from Salem to Clackamas County	Oregon 99E serves as the major transportation route to and through the communities of Woodburn, Hubbard, Aurora, Gervais, and Brooks, as well as connecting these communities with Salem. This highway also serves as a major farm-to-market route for the significant agricultural businesses and farms in the area. Traffic volumes have increased on this road to the point where delay and poor Level of Service are common occurrences, and capacity problems are worsening quickly. In addition, as this road bisects many of these communities, the high volume of traffic can have a detrimental effect on quality of life in surrounding communities, businesses, and the economy. This study would consider safety, capacity, goods movement, regional traffic movement, community livability, economic vitality, and other issues. This study may be combined with study of Oregon 99E in Clackamas County, as Oregon City or Canby may be logical northern endpoints for this study.
Oregon 214 from Silverton to Woodburn	This section of Oregon 214 provides the main connection between Woodburn, Mt. Angel, and Silverton. For people living in Silverton and Mt. Angel, Oregon 214 serves as the primary access route to I-5. There exists a need to look at facilitating transportation between Silverton/Mt. Angel and Woodburn and to look at ways to mitigate safety issues along this stretch of highway. A corridor study would also look at measures for improving access from I-5 to Silverton, Mt. Angel, and other areas in this part of the County.
Oregon 219 from Woodburn to Newberg	This corridor connects Woodburn and northern Marion County with Newberg and Yamhill County. Several 90-degree curves and the alignment of the highway make this route inefficient in terms of travel time. Roadway improvements and alignment changes to facilitate mobility need to be looked at along this corridor. There also exists a need to study the feasibility of using Oregon 219 versus other routes, such as the McKay/Yergen/Ehlen Rd corridor. A corridor study would also need to look at the impacts of any new river crossing in the area, if one is considered.
ADDITIONAL IDENTIFIED NEEDS	
Oregon 214 from Silverton to Oregon 22	This corridor provides access to Silver Creek Falls State Park and is heavily used during weekends and summer months. During these times, the highway experiences significant tourist and RV traffic. The corridor also serves local traffic from many rural residences and farms along the highway. A corridor study is needed to look at safety and traffic control improvements that could facilitate travel along this section of highway. In addition, there exists a need to look at ways to minimize conflicts between tourist traffic, truck traffic, and local traffic.

8.6.6 Regional Planning Efforts and Studies

Regional planning studies are needed to address large-scale projects that will likely involve coordination between several agencies and jurisdictions. The studies that are needed within the next 20 years are described in **Table 8-24**.

Table 8-24
Regional Planning Efforts and Studies

LOCATION	PROJECT DESCRIPTION
RECOMMENDED PROJECTS	
Oregon 22 / Cordon Rd Interchange[5]	Currently, there is no direct access from Oregon 22 to Cordon Rd. Gaffin Rd currently provides some connection, but not to current standards. A refinement study is needed to look at the need and impact of a new interchange on Oregon 22 at Cordon Rd and determine the most effective design (if appropriate). The study will also look at other engineering or land use actions as alternatives to building a new interchange at Cordon Rd. In addition, the study would evaluate nearby interchanges on Oregon 22 that could affect the final recommendation. A refinement study would likely be headed by ODOT with Marion County, the City of Salem and other local agency participation. While this interchange would be within the Salem Urban Growth Boundary, the need for it impacts areas outside the urban growth boundary.
Willamette River Bridge (Salem area)[6]	Significant capacity issues have developed where Oregon 22 crosses the Willamette River on the Center and Marion Street Bridges in Salem. This is a regional mobility issue because these bridges (at river mile 83) are the only bridges over the river between Independence (river mile 96) and Newberg (river mile 48). The River forms a barrier to East-West traffic across the Willamette Valley, and providing viable means of travel across it is important to the mobility and vitality of the region. Considerable work has been undertaken already towards a third bridge in the Salem urban area, and a potential corridor has been identified. The next step is an Environmental Impact Statement, which involves detailed study of the environmental, community, economic, and other issues involved. The County supports conducting this study. The County is generally supportive of the bridge, provided that environmental, community, economic, and other issues can be reasonably satisfied.

[5] Note: though this location is within the Salem UGB, transportation to and from rural areas of Marion County is affected by this deficiency
[6] Note: though this location is within the Salem UGB, transportation to and from rural areas of Marion County is affected by this deficiency

LOCATION	PROJECT DESCRIPTION
RECOMMENDED PROJECTS	
Potential new I-5 interchange in northern Marion County	Northern Marion County (along with southern Clackamas and Yamhill Counties) has grown substantially in the last few decades, and is anticipated to continue growing rapidly. Interstate 5 is a critical piece of the transportation system linking Marion County with the 'outside world,' and thus access to I-5 is critical to the economic vitality and quality of life of this region. Capacity problems currently exist at all three interchanges (Brooks, Woodburn, and Aurora/Donald) in the 20-mile stretch between the Salem/Keizer urban area and the northern Marion County line. The large spacing between interchanges also necessitates a significant amount of local roadway and out-of-direction travel to get to I-5. These capacity and out-of-direction travel issues have a detrimental effect on the region, and this detrimental effect will grow exponentially as the capacity issues become more severe. While potential modifications to the Woodburn interchange are progressing through the assessment process, they will not significantly address the delay issues in getting through Woodburn to this interchange. Therefore, while these modifications will certainly help Woodburn, a deficiency in connectivity to I-5 will still exist for the region. A study is needed to determine the value to the state and regional transportation network of an additional interchange in north Marion County. This would evaluate the value of the interchange to communities such as Mt. Angel, Hubbard, Gervais, Silverton, Molalla, Mulino, Scotts Mills, Newberg, St. Paul, many rural residents, and the plethora of agricultural businesses throughout the region.
Willamette River Bridge (North of Salem area)	A refinement study is needed to look at the need and impact of an additional crossing of the Willamette River. Currently, there are three crossings over the Willamette River in Marion County: at Salem, Independence, and Newberg. There is concern that as Polk County, Yamhill County, and northern Marion County continue to grow, there may be a need to provide another crossing north of the Salem area to provide regional mobility. A study is needed to determine whether an additional crossing is appropriate and to identify and evaluate possible crossing locations. This study could also be linked to the Woodburn area new interchange study since a new or expanded interchange could affect the need for an additional river crossing.

8.6.7 State Highway Bridges and Other Restrictions

There are bridges and other restrictions on State Highways that limit the mobility of vehicles, particularly large and/or heavy trucks. Some of these cause loads to be diverted onto County Roads that would otherwise use State Highways. This rerouting of traffic results in significant wear and tear on County Roads and bridges, which will result in additional maintenance and repair costs to the County. These detours also have negative effects on quality of life in their vicinity, as well as resulting in increased delays and costs to truckers and trucking companies and the resulting detriment to the economic vitality of area businesses. State studies have concluded that these types of restrictions will become more prevalent as the State's bridges continue to age. However, some effort and improvement on state roads will be made through the new bridge program that was funded here in Oregon.

Table 8-25 lists restrictions on State Highways currently in effect within Marion County. These restrictions, and the needs resulting from them, are likely to increase as the State's bridges continue to deteriorate due to lack of funding.

Table 8-25
State Highway Bridge and Other Restrictions

HIGHWAY	LOCATION	STRUCTURE	TYPE OF RESTRICTION
RECOMMENDED PROJECTS			
Oregon 22	Deer Park Road	Bridge	Weight
Oregon 22	Joseph St	Bridge	Weight
Oregon 22 EB	Beaver Creek (Near Aumsville)	Bridge	Weight
Interstate 5	Ankeny Hill Road	Overcrossing	Height 15'0" to 15'3"
Interstate 5 NB	Jefferson Highway	Overcrossing	Height 15'0"
Interstate 5	Talbot Road	Overcrossing	Height 14'7" to 15'5"
Oregon 22	72nd Avenue	Overcrossing	Height 14'6" to 15'5"
Oregon 22 EB	Albus Road	Overcrossing	Height 14'4" to 14'8"
Oregon 22	Lancaster Drive	Overcrossing	Height 14'6" to 15'0"
Oregon 22	Cordon Road	Overcrossing	Height 15'1" to 15'6"
Interstate 5	D Street	Overcrossing	Height 16'0"
Interstate 5	Center Street	Overcrossing	Height 16'0"
Interstate 5 SB	Chemawa Road	Overcrossing	Height 16'2" to 16'3"
Interstate 5	Quinaby Road	Overcrossing	Height 16'3" to 16'7"
Interstate 5	Perkins Road	Overcrossing	Height 16'2" to 16'11"
Interstate 5	St. Louis Road	Overcrossing	Height 16'3" to 16'7"
Interstate 5	Keene Road	Overcrossing	Height 16'6" to 16'11"
Interstate 5	Concomly Road	Overcrossing	Height 16'6" to 17'1"
Interstate 5	Brooklake Road	Overcrossing	Height 16'3" to 16'9"
Oregon 214	Under Oregon 22	Overcrossing	Height 15'0"
Oregon 22	Whitewater Creek (Marion – Linn County Line)	Bridge	Weight
Oregon 219	Willamette River	Bridge	Weight
Mill City Bridge	North Santiam River	Bridge	Weight and Height 14'0" to 15'4"

In addition to the height deficiencies in Table 8-10 and 8-25, several bridges on Oregon 22 have deficient heights and/or weight-bearing capabilities that require oversize loads and heavy hauls to be detoured onto Aumsville Hwy, which is a relatively narrow and curvy County road. It is preferable that these types of loads returned to using Oregon 22.

In addition, there are several locations where State Highway structures restrict the mobility of vehicles on County Roads. These restrictions, listed in **Table 8-26** also result in detours, increased out-of-direction travel, increased costs to maintain the roadways, and increased costs to transportation companies operating in Marion County.

Table 8-26
County Roads Restricted by State Highway Structures

ROAD	LOCATION	STRUCTURE	TYPE OF RESTRICTION
RECOMMENDED PROJECTS			
Arndt Road	Interstate 5	Overcrossing	Height 14’0”
Cascade Highway	Oregon 22	Overcrossing	Height 15’9” to 15’10”
Ehlen Road	Interstate 5	Overcrossing	Height 16’0”
Delaney Road WB	Interstate 5	Overcrossing	Height 16’0”
ADDITIONAL IDENTIFIED NEEDS			
Joseph Street	Oregon 22	Overcrossing	Height 15’4”
Fellers Road	Interstate 5	Overcrossing	Height 14’0”

8.7 TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES - TRANSPORTATION OPTIONS PROGRAMS

One of the most promising strategies to address transportation capacity needs is to curb the demand for transportation altogether by providing better options that put less strain on the transportation system than driving alone. Transportation demand management (TDM) strategies attempt to reduce the need to travel, especially in single occupant vehicles during the peak hour commuting periods. This is often done by providing other options (such as transit, carpools, vanpools, walking, cycling, telework, etc.) and/or encouraging use of these options so that people might find one of these options to be a better alternative than driving by themselves. Marion County will pursue and encourage implementation of TDM strategies in the County as an alternative to building new transportation facilities, a way to maintain optimum function of existing facilities, and a way to provide better mobility options for the traveling public. The County will pursue 'positive' options that encourage the use of alternative transportation modes. The County has no plans at this time to pursue 'negative' incentives that discourage or increase the cost of driving.

Employers and developers can, by providing transportation options and incentives, reduce the impact of their development on the road system. At the discretion of the Public Works Department, mitigation measures required of developments may be reduced in proportion to the effect of TDM strategies committed to by the company to reduce their impact on the transportation system. Employers are increasingly recognizing the importance of these measures in recruiting and maintaining quality employees.

These strategies are listed here in five areas:

1. Reduce demand for peak hour travel
2. Provide transit and shuttle services
3. Facilitate rideshare and carpooling
4. Promote bicycle and pedestrian travel
5. Utilize teleworking

8.7.1 Reduce Demand for Peak Hour Travel

Many of the capacity issues affecting roads in rural Marion County only develop during one or two hours of the day. Sometimes a road will function well for twenty-two hours of the day and only have capacity issues during the morning and evening rush hours. The goal of this method is to reduce the number of vehicles traveling during the rush hours. This can be done either by spreading the peak hour trips out to other hours of the day or by removing the need for some of the peak hour trips.

A number of strategies can be used to shift peak hour trips to other hours of the day. For example, employers can schedule shift changes to occur at 3pm instead of 5pm. Many truckers make this shift themselves and do most of their driving during off-peak hours to avoid rush hour traffic. Methods to shift rush hour trips to other hours with available capacity are encouraged.

The demand for peak hour trips can also be reduced by removing the need for some of these trips. For example, during a typical 40-hour five-day work week, the worker would need to make ten

peak hour trips to and from work. However, if this same employee were working four ten-hour days, he/she would only need to make eight trips to and from work during the week, and these trips are less likely to be during peak hours. Teleworking (allowing employees to work from home instead of commuting to the office) also has considerable potential in this area. Travel demand can also be reduced through people combining several errands into one trip, rather than separate trips for each task.

Other potential strategies include providing incentives (such as vouchers, coupons, or even monetary rewards) for commuters to travel by means other than their single-occupant vehicle. These incentives could also apply to employers. Congestion issues also often arise around schools, and students and/or parents could also be given incentives if they choose to walk or carpool.

Education is also important, as many people simply don't know about (or don't understand) the other options (such as rideshare, transit, cycling, flexible schedules, or teleworking) available to them. Many also don't understand the true costs of their driving – both their own costs (gas, vehicle repairs and depreciation, insurance, stress, etc) and the costs to society of our collective driving habits.

8.7.2 Provide Transit and Shuttle Service

One strategy to encourage alternative modes is to develop an expanded commuter shuttle service and more park-and-ride/pool lots. While this strategy will not reduce the need to travel, it may reduce travel by people in single occupancy vehicles. Many commuters, shoppers, and other travelers might find it better for them to ride a bus or shuttle rather than expend their energy driving. This then frees up more roadway capacity for other users.

The expanded transit service and express service recommended in Chapter 9 will not only provide good service for the transportation-disadvantaged (those who can't drive or can't drive in all conditions), but will also provide a good alternative to the automobile.

8.7.3 Rideshare and Car Pooling

One particularly effective current TDM program is the Mid-Valley Regional Ride-Share Program. Often in today's world, two or more commuters will be making similar commutes at similar times of the day, and not know each other. This program introduces these people to each other so that they might carpool together and thus save money, reduce demand on the roads, and perhaps even become friends. The program, administered through Salem Area Transit District, continues to serve all of Marion, Polk, and Yamhill Counties, and interfaces with commuters from the Eugene, Corvallis, Albany, and Portland metropolitan areas. This program has been in existence for thirty years and will continue to be a valuable resource for ride-share matching, as well as formation of vanpools, and working with employers to provide better transportation options for their employees. The program also provides free 'emergency rides home' through participating employers. The rideshare program can be reached at (503) 371-POOL (7665) in the Salem area and (888) 323-POOL outside the Salem area, or online at mvrideshare.net. The program has been quite effective by matching up potential carpools and vanpools, and by helping people become more aware of the options available to them.

Installation of 'Park-and-Ride' lots also helps promote both carpooling and use of Transit or Shuttle Services. These parking lots are located along main commute corridors and allow people to drive themselves part of the way, then join with others in a carpool, van, or bus for the rest of their trip. These lots are usually either publicly owned or made available to the public through a public agreement with the property owner. Figures 7-1 and 13-1 show the location of existing and potential future park-and-ride lots. Pursuit of additional lots is recommended as sites and funding become available.

8.7.4 Promote Bicycle and Pedestrian Travel

It is also hoped that improvements to enhance bicycle and pedestrian safety and mobility will encourage people to use these modes more. While it is recognized that bicycle and/or pedestrian travel is not practical for all people making all trips (especially in rural areas), walking or cycling can be an excellent way for some people to make some trips. This then benefits everyone through reduced automobile traffic on the roads.

In the areas classified as Rural (and thus covered by this plan), we especially see potential for bicycle and pedestrian trips within unincorporated communities. Provision of good pedestrian and bicycle mobility within unincorporated communities may encourage residents to do more shopping locally and make fewer long trips to cities to shop.

We also encourage cities to provide good sidewalks, paths, and bike lanes so that city residents might be more inclined to shop locally, rather than making longer automobile trips to larger cities to do their shopping and other activities.

Programs such as bicycle and pedestrian safety education (often taught in schools), 'walking school buses' (a few parents walking with groups of school children), cooperative incentives offered by bike shops and sporting goods stores, and bicycle commute challenges are effective in making this a more viable option. In turn, the presence of additional pedestrians and cyclists often makes a community feel safer and friendlier.

8.7.5 Utilize Teleworking

Teleworking occurs when a person works from home and communicates with the office (or the rest of the company) by telephone, computer, or other means, without having to physically go to the office. Teleworking is another option that people could use to significantly reduce their need to commute by automobile, and could change the way transportation is perceived. As our society continues to move forward into what has commonly been referred to as the 'Information Age', more and more jobs require 'transporting' information rather than goods. The Oregon Department of Energy estimates that within the next few years, 70% of the work force will be generating and manipulating information. This represents a dramatic departure from the past when the majority of people commuted to work to produce industrial goods. In today's work environment, it is often more productive and less expensive to move information through telephone and the Internet rather than moving people to work sites. Recent advances in technology make it possible to transport information through phone lines, cable television lines, microwave, and satellites, thus reducing the demand for conventional roadway transportation

systems. In addition, teleworking programs can make a significant contribution in improving air quality by reducing the need to travel altogether. Marion County encourages investigation of teleworking as an alternative to physical commuting.

8.8 SCENIC ROUTES AND TOUR ROUTES

To encourage tourism, the County supports the concept of Scenic Routes, Tour Routes, and Scenic Byways, and will consider enhancements that preserve or provide scenic or historic values to the transportation system.

The Silver Falls Tour Route currently starts from exit 248 of I-5, heading east on Delaney Road to Turner, continuing east on Mill Creek Road through Aumsville, and east on Sublimity Road to Sublimity. The route then heads north on Cascade Highway and east on Oregon 214 to Silver Falls State Park. Leaving the park, the route heads north on Oregon 214 through Silverton, Mt. Angel, and Woodburn on its way to rejoin I-5 at exit 271 in Woodburn. This helps visitors see some of the scenery and communities that enhance Marion County's excellent quality of life. Marion County supports the Silver Falls Tour Route for the tourism and economic benefit it brings to the County, and because it helps visitors find some of the wonderful attractions that Marion County has to offer.

The Willamette Valley Scenic Bikeway has recently been designated, and travels from Champoeg State Park to Eugene. Starting in Champoeg, it journeys south along Champoeg, Riverside, Blanchet, River (NE), Matheny, and Wheatland Roads, through Willamette Mission State Park, then across the Wheatland Ferry into Yamhill County. An alternate route south from Salem follows River Road South, Riverside, and Buena Vista Roads. This helps visitors (particularly cyclists) see some of the scenery (including the river) and communities that enhance Marion County's excellent quality of life. Marion County supports the Willamette Valley Scenic Bikeway for the tourism and economic benefit it brings to the County, and because it helps visitors find some of the wonderful attractions that Marion County has to offer.

There are many other wonderful attractions that can also give visitors a glimpse of the beauty and character of Marion County. Several other tour routes could be drawn up that would show off more of the County. Marion County supports further effort toward identifying, designating, and developing additional tour routes, provided that issues and impacts can be reasonably addressed.

8.9 SUMMARY

This section has presented many of the existing and future needs of Marion County's transportation system. As one might imagine, sufficient funding does not exist to address all of these needs. Chapter 11 further refines this chapter and presents Marion County's fiscally constrained Transportation System Plan.

CHAPTER 9: RECOMMENDED NON-ROADWAY IMPROVEMENTS

There are many aspects of Marion County's transportation system, besides roads, that move people and goods. This section describes the needs and recommended improvements on those elements of the transportation system. Opportunities abound for improvements in these areas, and many of these potential improvements would be very cost-effective and beneficial to the residents, businesses, and visitors of Marion County.

The recommended improvements are organized into six components as shown below. Each of these components is discussed in detail in this section.

1. Bicycle and Pedestrian Improvements
2. Public Transportation
3. Air
4. Water
5. Rail
6. Pipeline

9.1 OFF-ROADWAY BICYCLE AND PEDESTRIAN IMPROVEMENTS

There are several off-roadway bicycle or multi-use paths throughout the County. Some of these are shown on figure 5-3. Some of these facilities are in State parks, and many provide excellent opportunities for recreational cycling and for new cyclists to develop their ability. However, few of these paths provide a feasible option for trips of substantial distance. Thus, while they provide excellent recreational cycling opportunities, they are not likely to be used instead of roadways for trips of substantial distance where the purpose is transportation rather than recreational riding. Thus, the current off-road paths are not expected to reduce the number of vehicle trips made.

It is the goal of Marion County to develop a better system of multi-use paths throughout the County. This can best be done along existing corridors, such as unused rail lines, under power lines, along rivers, and along roadway rights of way. In the development of this TSP, effort was made to decide where trails would be appropriate. This resulted in **Figure 9-1,** the 'Potential Future Trails Map,' which indicates roughly where trails might be desirable. The intent of the map is to show where trails are desirable, and does not represent the intention of Marion County or anyone else to construct any trail over the opposition of property owners.

There is an effort underway in the North Santiam Canyon area to develop a trail from Mehama/Lyons, through Mill City and Gates, to Detroit, extending as far as Idanha. This trail would provide good scenery and substantial economic development potential, and would also provide cyclists a valuable alternative to riding along Oregon 22. This project may include a pedestrian and bicycle bridge over the North Santiam River into Linn County. Further analysis and planning of this trail is recommended, and the County

generally supports the trail for the transportation, recreation, and economic development opportunities that come with it, provided that its impacts can be appropriately mitigated.

There is also an effort coming together to develop a trail along Mill Creek from Woodburn to Hubbard to Aurora, with possible connections to other destinations in northern Marion County. This trail would provide good scenery, community connectivity, and economic development potential. Further analysis and planning of this trail is recommended, and the County generally supports the trail for the transportation, recreation, and economic development opportunities that come with it, provided that its impacts can be appropriately mitigated.

Marion County will also be on the lookout for other opportunities that arise to develop good trails and paths. In particular, the County will be looking to take advantage of opportunities that arise on unused rail lines, under power lines, and along rivers and creeks.

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Marion County
OREGON
Public Works

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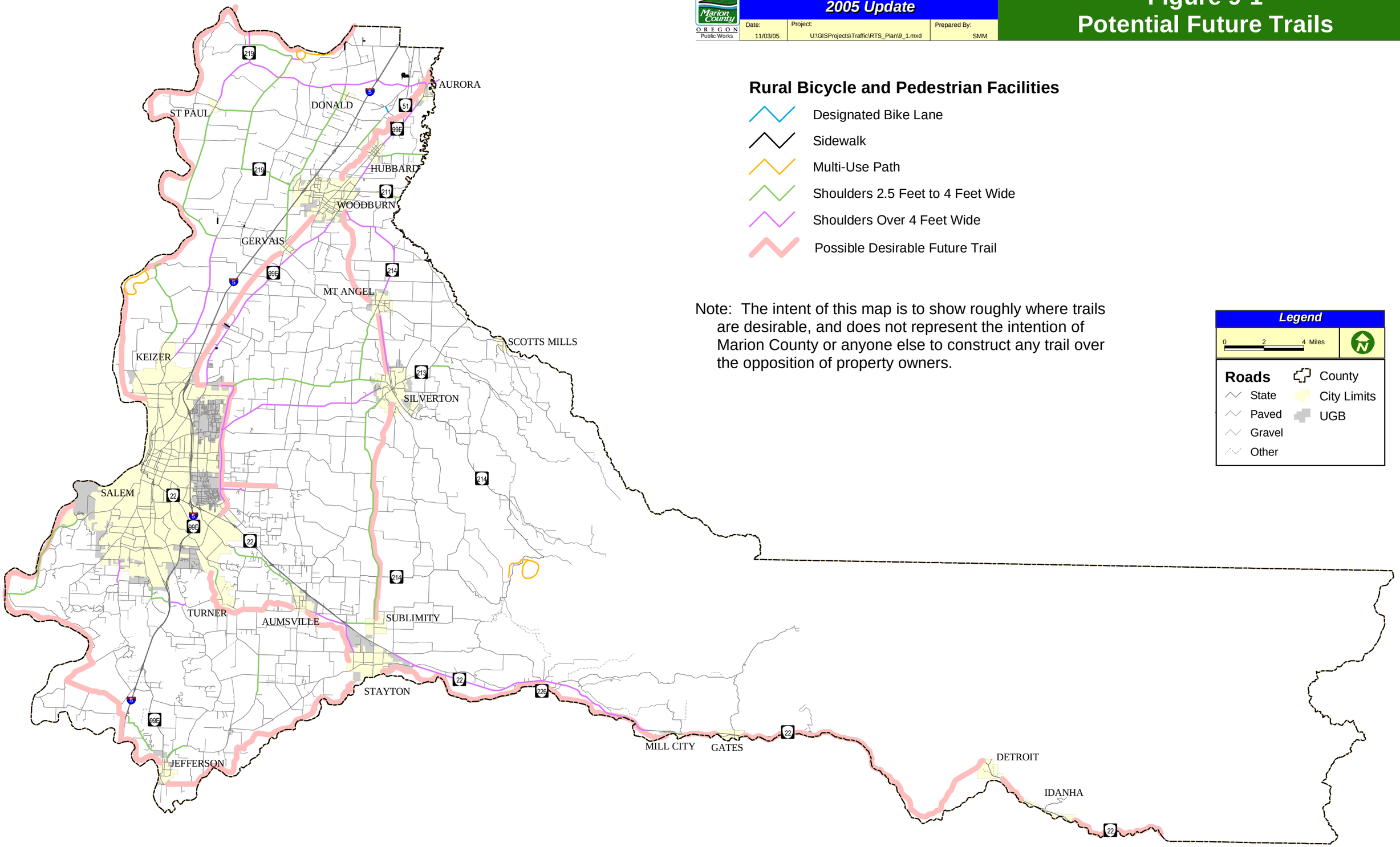
Figure 9-1
Potential Future Trails



Rural Bicycle and Pedestrian Facilities

- Designated Bike Lane
- Sidewalk
- Multi-Use Path
- Shoulders 2.5 Feet to 4 Feet Wide
- Shoulders Over 4 Feet Wide
- Possible Desirable Future Trail

Note: The intent of this map is to show roughly where trails are desirable, and does not represent the intention of Marion County or anyone else to construct any trail over the opposition of property owners.

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

9.2 PUBLIC TRANSPORTATION

For background in this section, we provide an excerpt from the 1998 Rural Transportation System Plan (RTSP). Text reproduced from the 1998 RTSP's description of the study and results is shown in *italics*.

One of the policies from the Marion County Comprehensive Plan is to encourage bus service to communities and areas presently not being served. Since it would be difficult to provide bus service to all of these areas, the County determined that a transit feasibility study should be conducted to look at the feasibility of developing public transportation services in the County. In 1996, the Mid-Willamette Valley Council of Governments was contracted to perform a study to identify transit needs and determine areas that could be efficiently served by transit. The results from that study were instrumental in developing this section of the plan.

9.2.1 Public Transportation Needs

As part of the study, a limited survey was taken from citizens at open houses and from members of the Citizens Review Committee and Technical Advisory Committee to obtain input on the types of public transportation services needed in the County. The survey revealed two primary types of service that needed to be looked at: inter-city transit service and para-transit service. The general response from the public and the committees indicated a strong desire to reduce commuter congestion and to help the transportation-disadvantaged. Both of these desires were considered in determining an appropriate plan for public transportation.

Inter-City Transit Service

An inventory of existing (1996) *public transportation providers (from Section 5.4), showed that there are currently two fixed-route transit systems in the County: the Salem Area Transit System and the Woodburn Transit System. However, neither of these systems provided inter-city service to link surrounding communities, such as from Salem to Silverton or from Salem to Stayton. With the growing popularity of these "bedroom" communities as desirable places to live and the County's desire to avoid strip development along major corridors, an inter-city transit service is needed to provide a more efficient means of transportation between urban communities.*

Para-Transit Service

A review of the public transportation inventory also revealed an emphasis on transportation for the developmentally disabled population. This transportation extends not only to medical needs, but also to training and work locations. Private programs in retirement communities are similar to government programs in that a large part of providing transportation is for medical needs. However, retirement centers also use transportation to shopping and recreational areas. It is anticipated that these programs (government and private) will continue to generate a need for transportation services.

One of the most important trends that supports the need to continue these services is the growth in the number of elderly. (The elderly population is commonly defined as individuals 65 and over.) Significant growth has occurred in recent years in the elderly

population of Marion County, and this trend is expected to continue. Based on Census data and projections, in 2000, 12.4 percent of the population of Marion County was over the age of 65. The elderly population of the State of Oregon is expected to increase from 13.6% in 2000 to 24.2% in 2025, which would result in a 125% increase in the number of elderly persons to over 1,000,000 Oregonians over the age of 65 by the year 2025. Marion County is expected to experience growth in the same proportion. The growth in the number of elderly is expected to accelerate due to improvements in medical care and the aging of the "baby boomer" generation. This generation of individuals will start turning 65 in about 5 years, and the rate of residents passing their 65th birthday will continue to grow for over 20 years (data updated based on 2000 census).

Growth of the elderly population is significant because they are more likely to need public transportation than younger individuals for a number of reasons. One reason is to save on expenses. Another reason is the gradual decline of physical abilities. In addition, studies show that many rural elderly are immigrants to the community and less likely to have the informal social network of long-term residents and therefore cannot rely on friends, relatives, and neighbors to provide transportation. These factors, combined with more free time, make public transportation attractive to the elderly.

9.2.2 Recommended Public Transit Service

Based on the two types of public transportation needs, the most practical strategy to pursue is one that can provide a viable commuting alternative to the single occupancy vehicle, while at the same time, provide service for the elderly and other transportation disadvantaged groups. The strategy that appears to be capable of accommodating both inter-city service and para-transit needs is a shuttle service along major commuting corridors in the County. The primary purpose of the commuter shuttle service is to reduce the use of single occupancy vehicles during the commute hours. In the initial phases, there is an opportunity to remove up to 180 single occupancy vehicles from peak hour traffic. An inter-city shuttle bus service operating during the morning and afternoon peak hours will provide a viable alternative of transportation to workers commuting to and from Salem. At the same time, the elderly and other transportation disadvantaged groups can use the service to conduct essential and leisure activities, such as medical appointments, shopping, or dining.

Based on projections of continuing growth, three corridors appear capable of generating the needed ridership to support a commuter shuttle service:

1. *Silverton Road from Silverton to Salem*
2. *Highway 22 from the Stayton-Sublimity area to Salem.*
3. *I-5 or Highway 99E from Woodburn (or Aurora) to Salem.*

Because Salem is the largest city and employment center in the County, all three corridors involve service to Salem. Coordination with Salem Area Transit District to provide timely transfers to Cherriots buses will expand the function of the commuter shuttle operation.

In addition to commuter shuttle service, the County also recommends that Salem Area Transit look at expanding the existing Cherriots system to serve future peripheral park-and-ride lots and explore the feasibility of linking to existing services in Woodburn and Wilsonville.

In accordance with the recommendations of this earlier study, the Chemeketa Area Regional Transportation System (CARTS) program has since been started, and provides this inter-city transportation on a fixed-route basis. The program is operating somewhat similarly to the suggestions from this study, and has been relatively successful. It includes service along the three recommended corridors, as well as service between Woodburn and Silverton.

The program seems to have been more successful in attracting the transportation disadvantaged for errands, medical, and shopping trips, than it has attracted commuters. The existing routes include many stops, which increase travel time, and run relatively infrequently, often with a few hours between buses. In order to attract more commuters, faster and more frequent service would be necessary. For this reason, we recommend consideration of adding express service along the three main corridors (Salem to Woodburn, Silverton, and Stayton).

There are also a few more corridors where new transit service could be beneficial. Based on review of Transportation System usage, Census transportation planning data, and considering potential demand for transit trips, the following recommendations have been developed:

9.2.3 Current Recommendations for Service Corridors:

The following corridors are worth exploring as potential or expanded transit corridors:

1) Express service from Woodburn to Salem, Silverton to Salem, and Stayton to Salem, connecting with Cherriots, Woodburn Transit, and fixed route systems that develop in Silverton and Stayton.

2) Oregon 99E from Woodburn (through Hubbard, and Aurora) to Canby and Oregon City, perhaps continuing to downtown Portland. This would connect with Tri-Met and/or SMART. If a future MAX line is constructed in the area, this service should then also connect with one of the southern MAX stations. Extending this service to Gervais, Mt. Angel, and Silverton might also be worth consideration.

3) Interstate 5 from Woodburn (through Hubbard and Aurora or Donald) to Wilsonville, Tualatin, and Portland (with possible express service from Woodburn to the downtown Portland Transit center). This would connect with Tri-Met and/or SMART. If a future MAX line is constructed in the area, this service should then also connect with one of the southern MAX stations. A connection would also be appropriate to any commuter rail line established in the area (such as a Wilsonville to Beaverton commuter line). Extending this bus line to Gervais, Mt. Angel, and Silverton might also be worth consideration.

4) Salem to Portland

5) Newberg, through Keizer, to Salem.

6) Salem to Albany and Corvallis, connecting with both Salem Area Transit, Albany Transit, and Corvallis transit.

7) Jefferson to Millersburg and Albany, connecting with Albany Transit.

8) The County also supports increased transit opportunities for circumferential travel around the Salem Area. While most origins and destinations of these trips would be within the Urban Growth Boundary (and service thus provided by the Salem Area Transit District), Cordon Road is a potential route for these transit vehicles. This increased circumferential service could also connect with CARTS routes.

Figure 9-2 shows these corridors for which further study is recommended to determine their feasibility as potential transit corridors – and to determine who the logical transit providers would be. The first three recommendations would also work towards the Woodburn TSP's goal to "Develop a plan for providing travel options between Woodburn and Portland and/or Salem, including intercity bus service and potential bus/carpool park-n-ride facilities." Vanpools along these corridors could be a good precursor to their use as transit routes.

It should be noted that Marion County is not a public transportation provider, and thus is not in a position to operate service along these corridors. However, the County will support and work with local service providers towards implementing programs similar to those outlined. The County has been working with the WHEELS Community Transportation Program (including CARTS) run by Oregon Housing and Associated Services (OHAS) and intends to continue to do so.

Recognizing human nature – that a person is more likely to use a facility or a mode of transportation if it feels 'safe' and 'nice,' the County supports provision of amenities at transit stops in small cities and rural areas. This may include security measures such as lighting, and may also include amenities such as shelters, benches, landscaping, and artwork. Opportunities for businesses (such as espresso and pastry stands, for example), adjacent to these transit stop locations may also be beneficial.

9.2.4 Park-and-Ride/Pool Lots

In addition to the recommended inter-city commuter transit corridors, the County is looking for opportunities to develop park-and-ride/pool lots for shuttle service users and car pools. In some instances, particularly near intersections of key roads and highways, the County will look at acquiring right-of-way to set aside for developing park-and-ride/pool lots. In other instances, the County will look at making arrangements to allow the use of existing parking lots as informal park-and-ride/pool locations. These locations could include lightly used parking lots at office sites, churches, parks, schools, and shopping centers. (Possible locations for park-and-ride/pool lots are shown in Figure 7-1.). Recognizing human nature – that a person is more likely to use a facility or a mode of transportation if it feels 'safe' and 'nice,' the County supports provision of amenities at these locations. This may include security measures such as lighting, and may also include

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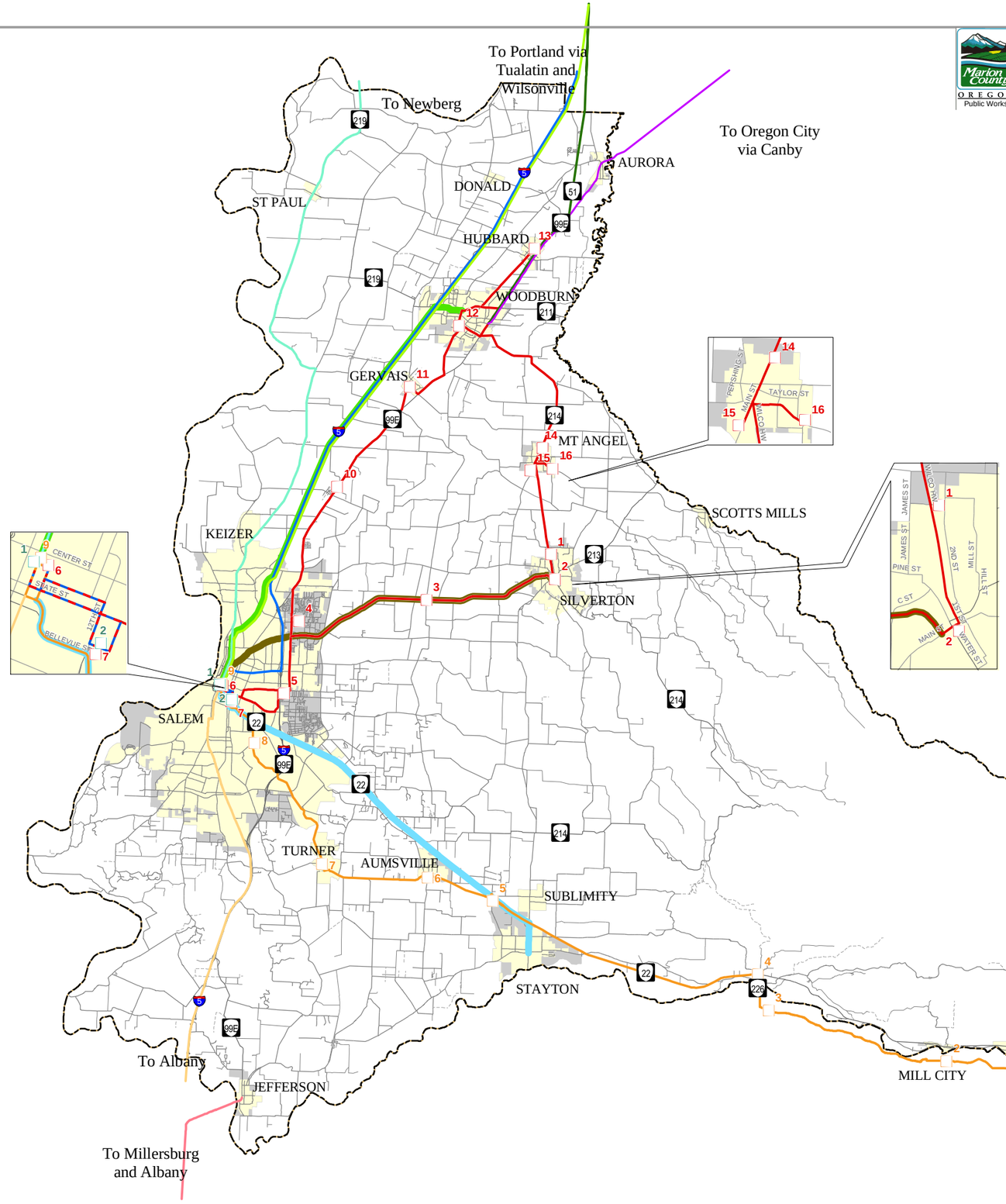
Figure 9-2
Existing and Potential Future Transit Route Corridors



Potential Future Corridors

- Woodburn to Portland
- Woodburn to Oregon City
- Jefferson to Albany
- Salem/ Keizer to Newberg
- Salem to Albany
- Salem to Portland

Possible Express Routes

- Woodburn to Salem
- Silverton to Salem
- Stayton to Salem

Existing Transit Routes

Chemeketa Area Regional Transit System (CARTS)

- Canyon Connector
- North Marion County Route

South Metro Area Rapid Transit (SMART)

- Salem to Wilsonville

All routes run Monday through Friday, except holidays.

Bus Stop

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

amenities such as shelters, benches, landscaping, and artwork. Opportunities for businesses (such as espresso and pastry stands for example), adjacent to these park-and-ride locations may also be beneficial.

9.2.5 Para-transit Improvements

Para-transit providers throughout the County are doing a good job of providing services to a select group of transportation disadvantaged. However, it is anticipated that these services will continue to grow in the future and existing para-transit providers will likely find funding difficult to obtain. To enhance para-transit services, there exists a need to organize and coordinate para-transit providers on a sub-regional basis. The purpose of organizing and coordinating different para-transit providers is to overcome operating differences and to maximize resources by exchanging and coordinating services. In addition, the County has adopted a policy in its Comprehensive Plan to coordinate with other jurisdictions in the area to promote the development of integrated and improved transportation services for the transportation disadvantaged. Currently, there are three sub-regions that would likely benefit from organizing para-transit providers in order to provide future service. These three sub-regions are:

1. Salem/Keizer metropolitan area
2. Silverton/Mt. Angel/Woodburn area
3. Stayton/Sublimity/North Santiam Canyon area.

9.2.6 Regional Transportation Enhancement Plan (2005 Update)

In 1998, the Salem Area Mass Transit District completed a *Regional Transportation Enhancement Plan* (RTEP) for Marion and Polk County. An update of this plan is currently being prepared by Salem Area Transit, in conjunction with Regional Advisory Committees. Quoting from a preliminary introduction of the plan:

"The plan was developed to improve transportation for the residents of Marion and Polk Counties. It will bring CARTS closer to operating as a centralized system with regional coordination while still allowing local independence. The plan supports rural communities in reaching their individual goals and objectives with continued collaboration among regional and local governing bodies."

"The ten goals of the plan will move rural transportation forward in providing stability, ensuring community involvement and coordination, increasing service, increasing ridership, and improving quality. The rural area includes Marion and Polk counties outside of the Salem-Keizer Transit boundary, but services do interact with Salem-Keizer Transit services."

New components of the plan include the volunteer program that will provide rider assistance and training for seniors and people with disabilities. The program will empower riders to get into the community on their own thereby increasing access to socialization, vital medical services and basic life-sustaining activities. Another new aspect of this plan is the development and implementation of Intelligent Transportation System (ITS) methods. The ITS will maximize efficiency of operations, planning, and administrative functions. The RTEP's ten goals are:

1. Increase transportation choices
2. Enhance local community transportation
3. Ensure community involvement in planning and development
4. Keep the regional system accountable
5. Promote regional solutions through coordination and cooperation
6. Promote regional transportation program to increase ridership
7. Develop an Intelligent Transportation System to maximize efficiency of operations, planning, and administrative functions
8. Leverage resources to stabilize funding
9. Implement a volunteer program to provide rider assistance and training to increase independence and socialization.
10. Expand the success of the Medicaid Brokerage

The 1998 RTEP resulted in many action plan items that have since been implemented. The CARTS system was one result, as is better coordination between the various transit providers in the region, and securing additional funding for transit service in the region.

Marion County supports the findings and work program of the RTEP. If called upon for assistance, the County intends to take appropriate actions to help facilitate its implementation.

9.2.7 Marion County Urban Growth Management Framework (2002)

Marion County's Urban Growth Management Framework (document summarized in Chapter 3) contains policies and guidelines to improve County/City Coordination on transportation system and planning issues:

Policy #3: Coordinate the enhancement or addition of transit connections within and between cities.

Policy #1: Marion County shall jointly plan with communities to meet the transportation needs in the future.

9.3 AIR PLAN

There are currently two public airports in Marion County: the Aurora State Airport northwest of Aurora and the Salem Municipal Airport (McNary Field) in Salem. At this time, there are no immediate plans to use either the Aurora State Airport or the Salem Municipal Airport as a "reliever" airport to Portland International Airport. Both airports are currently being used by both corporate and civilian aircraft.

9.3.1 Aurora State Airport Master Plan Update

This plan was completed in 1999, and is summarized here. See the Plan (copies can be obtained from the Oregon Department of Aviation) for details regarding proposed projects.

Aurora State Airport has a single asphalt concrete runway with a full-length parallel taxiway. The runway is 5,000 feet long by 100 feet wide, and is equipped with Medium Intensity Runway Lights (MIRLs) with Visual Approach Slope Indicators (VASIs) at both ends. Runway pavement strength is rated at 30,000 pounds for aircraft with single wheel landing gear and 45,000 for aircraft with two wheels per landing gear. The following projects are planned for construction by 2018:

- Plans to expand runway protection zones and avigation easements (easements for planes to fly over land)
- Construct fuel facility
- Conduct noise study
- Obstruction removal
- Reconstruct and expand central ramp
- Reconstruct hangar taxilanes
- Construct Runway 17 hold apron
- Construct additional corporate hangars and potential corporate hangar taxilane
- Construct potential 10-unit T-hangar and taxilane
- Construct perimeter fencing and gates
- Replace MIRL (Lighting)
- Replace Runway 17 and 35 VASIs with PAPIs (Lighting)
- Replace lighted wind cone
- Overlay and rehabilitation of runway and taxiways
- Relocate parallel taxiway slightly farther away from runway
- Install taxiway lighting

9.3.2 Salem Municipal Airport

The Salem Municipal Airport does not currently have regularly scheduled air carrier service. (Seattle-based Horizon Airlines discontinued service to Salem in 1994.) However, the airport accommodates regular cargo service from the United Parcel Service (UPS) contract carrier, Sport Air Travel. Although UPS and Federal Express do not operate their own aircraft at the Salem airport on a regular basis, both companies maintain operations facilities on, or near, the airfield. The airport also accommodates several charter flights that provide service to Reno, Las Vegas, or Laughlin, Nevada. The Salem airport also serves as a joint-facility with the Oregon National Guard.

One of the primary issues in the airport master plan is whether the airport expects to accommodate commercial air service. At this time, the airport is not expected to attract commercial traffic in the near future. The prospects for direct air service will improve when three conditions are met:

1. Congestion on Interstate 5 leads to unpredictable travel times from Salem to Portland.
2. Further population growth in Salem or between Salem and Portland.
3. Congestion at Portland International Airport, slowing aircraft turnaround times.
   (Taken from the McNary Field Airport Master Plan Draft Report)

These conditions could be reached in 10 to 15 years. At that time, the most likely commercial air service will be provided by regional jets seating up to 70 passengers. Markets between Seattle and San Francisco would likely be served. With this type of service, an estimated 20,000 passengers per year could potentially use the Salem airport.

Some of the other key issues addressed in the airport master plan pertain to facility requirements, land use compatibility, and zoning designations. The issues include:

- X Improvements to the runways, taxiways, hangar areas, lighting, and instrument approaches.
- X Possible development of the west, south, and eastern areas of the airport to provide for aircraft hangars, industrial land development, and other airport related facilities.
- X Increase in airport-generated revenues to maintain an effective program of facility maintenance and improvement.
- X Airport zoning designation.
- X Forecast of types and levels of activity expected at the airport for the next 20 years.
- X Airport noise.

The remaining airstrips and heliports in the County are limited to private aircraft. The private airstrips still serve as valuable resources to the County, especially for providing emergency services. A list of these facilities is provided in Chapter 5, Table 5-18.

9.4 RAIL PLAN

Marion County supports continued and increased freight and passenger rail service along the existing rail lines in Marion County. The County generally supports improvements that would increase the efficiency of rail transportation (freight and/or passenger) as long as the impacts of these improvements can be appropriately addressed. The County also supports continuation and expansion of the existing passenger rail service through Marion County. Improvements to maintain and/or improve track speeds for freight and/or passenger service are encouraged.

The County recognizes the importance of rail freight transportation to many of the industries in Marion County, as rail is sometimes the most efficient mode for them to transport their raw materials and products. Marion County encourages and supports the maintenance and improvement of these rail lines in order to facilitate continued and improved freight transportation for these industries. Recognizing that railroads need a certain amount of business for a line to remain viable, efforts are encouraged to recruit additional companies that would ship and receive goods via rail. In addition, cities with developable land along rail lines (particularly the Portland & Western Railroad and the Willamette Valley Railway) are encouraged to take steps to promote use of these parcels by entities that would make use of the rail line.

Marion County encourages the establishment of a cost-effective rail passenger service connecting the heavily populated urban centers of the Willamette Valley. In addition, the Oregon Rail Passenger Policy and Plan calls for the future development of high-speed rail between Eugene and Portland with trains reaching top speeds between 79 and 110 mph. At this time, it appears likely that a new rail line would need to be constructed (an expensive proposition) in order for high-speed passenger rail service to be implemented. Marion County will continue to support the concept of a high-speed rail line in the Willamette Valley. Specific locations for rail improvements would be identified as high-speed rail gets closer to implementation.

As noted in Section 5-5, commuter rail service is planned to start along the Portland & Western rail line from Wilsonville to Beaverton in 2008. This line extends south from Wilsonville into Marion County, and goes through Salem. Extending this service south to Salem would be a logical extension of this commuter service, linking major trip generators and attractors in the mid- and northern Willamette Valley. According to the 2001 Oregon Rail Plan: “During the process of conducting the Beaverton-Wilsonville study, a number of people at the public hearings suggested that the service be extended southerly to Salem. The Beaverton-Wilsonville Steering Committee indicated that they did not want to entertain the suggestion at this time. They were concerned that the increased costs for this extension would make the overall project so large that funding would be even more difficult to obtain. They suggested that a more appropriate time to discuss the extension was once the Beaverton-Wilsonville project was fully funded. A preliminary look at the costs associated for this 27-mile extension seemed to indicate that capital costs for such an extension would be approximately $88 million. This included both track improvements and the necessary equipment.” After commuter rail service has started between Wilsonville and Beaverton and operated for a couple of years, the feasibility of this commuter rail service extension from Wilsonville to Salem should be evaluated to determine if it would be a cost-effective investment. This would likely also include some form of shuttle service between the Salem rail station and key Salem destinations. A stop near Oregon 219 west of Woodburn would also merit consideration. Marion County generally supports implementation of this service, provided all issues can be addressed to appropriate levels.

The Willamette Valley Railway between Woodburn and Stayton is considering use of its line for passenger and excursion-type service. There is a Cascade Scenic Railway Inc. group looking at the feasibility of starting and operating a short-line rail service between Silverton and Woodburn. Future stops could include Mt. Angel, Stayton, and possibly east Salem. Marion County generally supports this to the extent that it would provide quality of life and economic benefit to the community. As this line currently operates in 'excepted track' (freight only with maximum speed 10mph) status, improvements to the track are recommended to enable the line to be used for passenger transport.

The identified funding needs (in the 2001 Oregon Rail Plan) should be met by the appropriate railroad, with possible assistance through grant funding. These needs include rail renewal, bridge repair, cross tie renewal, and turnout renewal on the Portland & Western line, and rail, cross tie, and turnout renewal on the Willamette Valley Railway.

Freight transport along rail lines is expected to continue and grow in the future. Rail often provides the most efficient way to transport freight, and the County encourages investigation of increased service for freight transport by rail. However, while freight transport by rail offers many benefits, including cost-effectiveness and removing trucks from roadways, it is important to ensure that the benefit of increased operations will outweigh any adverse effect on the surrounding environment and communities. Construction of new rail spurs will be considered on a case-by-case basis, and is encouraged where they result in overall benefit to the people. Marion County generally supports improved freight rail transportation in the County.

A new east-west rail spur has been constructed just north of Brooklake Road to connect a Morse Bros. gravel pit to the Portland & Western Railroad line. The new rail spur is currently in use, and some rock that would otherwise be shipped by truck is now being shipped by train. The County generally supports similar rail spurs when their merit can be demonstrated and the increased transportation efficiency would offset the negative impacts of the spur.

Marion County also generally supports the development of intermodal freight transfer facilities, in which goods can be transferred from other transportation modes (particularly trucks) to rail. This could increase the viability of rail lines, improve the efficiency of transportation of these goods, and potentially reduce the number of truck miles traveled and the resulting impact of these trucks on the County Road system. Development of these transfer facilities is supported as long as the impacts of these facilities can be appropriately addressed. These transfer facilities could be particularly useful for shipping of agricultural commodities or industrial goods. However, care should be taken to avoid placing these transfer facilities where they would cause trains to block crossings on busy roadways.

9.5 WATER PLAN

There are currently two ferry services in operation in the County: the Buena Vista Ferry and the Wheatland Ferry. Both ferries are operated by Marion County and provide service across the Willamette River. (A complete description of the ferry service is provided in Section 5.7.) It is anticipated that both of these ferries will continue to operate over the next 20 years. The Buena Vista Ferry was rehabilitated in early 1995. The improvements included an enclosure system, new operator cabin, new controls, and a new generator. The new Daniel Matheny IV ferry was recently put into service at Wheatland in 2001.

At this time, no additional ferry crossing routes are planned.

The locks in Oregon City (to get around Willamette Falls) are very important to the viability of continued ferry operation. When it becomes necessary to do major maintenance on or replace one of the ferries, it is typically taken up the Willamette River to the Portland area or beyond. Because of the size of the ferry, it needs to travel on the river, as it is not practical to transport by any other means. The locks need to remain operational so that the ferries do not become landlocked.

The question occasionally arises as to the feasibility of using the Willamette River for transportation, particularly the feasibility of shipping goods by barge. The current regulatory status of the Willamette is an authorized six-foot channel of unspecified width extending from Oregon City to the mouth of the Santiam River (South County Line). All of the County's frontage lies within this section. While the authorized channel indicates the potential for navigability, this channel has not been maintained for quite some time. Dredging ceased many years ago because its cost was greater than the resulting benefit. Extensive additional sedimentation has occurred since then, making dredging even more costly. There are presently no immediate plans to use this portion of the Willamette River for commercial navigation, although there is an existing authorized Federal Navigation Channel extending as far as Corvallis. Although dredging the river could bring economic benefits to the region, it would be quite costly and could also have undesirable impacts to the environment. At this time, the County has no plans to pursue river dredging. Thus, while the potential does exist for the Willamette to be used for freight and passenger transportation, such navigability is not likely to be maintained by a government agency.

However, the possibility of waterborne freight and passenger movement on the Willamette does exist. It is possible that, during the timeframe of this plan, one or several commercial operations may become interested in the economic benefits that barge transportation offers. It is also possible that one or several commercial operations may become interested in operating excursion boats on large portions of the Willamette. It is possible that these economic benefits and opportunities may outweigh the costs of dredging such that maintaining a channel on part of the Willamette along Marion County becomes cost effective for them. Marion County would be supportive of such efforts to privately fund channel maintenance, provided environmental and other issues can be reasonably addressed.

It is very important that the Oregon City locks (to get around Willamette Falls) remain operational in order to preserve the option of using the Willamette River for transportation by boat or barge. They also need to remain open so that vessels operating on this portion of the river can get to repair facilities in Portland and beyond.

A volunteer and non-profit group effort has recently developed a water trail (a canoe/kayak trail route) along the Willamette River from the Buena Vista Ferry past Independence, Salem, and Keizer, to the

Wheatland Ferry. This trail involves maps of the river and signs directing boaters to public lands along the river for landing points, and could include some amenities at these sites. This trail provides good scenery and economic development potential, and a glimpse into the historic use of the Willamette as a transportation corridor. Further analysis, planning, and development of this trail is recommended, and the County generally supports the trail for the recreation and economic development opportunities that come with it, provided that its impacts can be appropriately mitigated.

Recognizing that a significant amount of freight is shipped to and from Marion County via the Columbia River, Marion County supports efforts to deepen the Columbia River shipping channel from the Pacific Ocean to Portland and the Willamette River shipping channel from the Columbia River to Portland.

9.6 PIPELINE PLAN

The County encourages the use of underground pipelines that minimize the need for surface shipping and that are compatible with established land uses. Two major pipelines currently run through the County: a petroleum distribution line belonging to Sante Fe Pipeline Inc. and a natural gas distribution line belonging to Northwest Pipeline Corp. These companies are expected to continue operating the pipelines over the next 20 years. The Sante Fe Pipeline Inc. may add another line running from north of Salem east to Bend, depending upon future demand. Northwest Pipeline Corp. currently has no plans to expand its natural gas pipeline network.

Northwest Natural has recently completed a pipeline carrying natural gas across portions of northern Marion County. This pipeline is now in the beginning stages of use.

Marion County is generally supportive of pipeline transportation as long as local, environmental, and land-use issues are reasonably satisfied.

CHAPTER 10: POLICIES

This section includes the policies being continued or implemented by this Rural Transportation System Plan (RTSP) in order to best maintain the existing transportation system and make the most effective use of limited resources for providing new facilities on the transportation system. Each of these policies is hereby adopted at the time that this Rural Transportation System Plan (RTSP) is adopted by the Marion County Board of Commissioners. Policies are grouped into four categories:

1. Transportation System Management (TSM) Policies
2. Roadway Maintenance and Preservation
3. Transportation Policies
4. Future Evaluation of Transportation Issues

10.1 Transportation System Management (TSM) Policies

Transportation System Management (TSM) strategies attempt to maximize the capacity, safety, and efficiency of the existing transportation system by implementing traffic control improvements, access management strategies, and land use controls. The idea of Transportation System Management is to make minor improvements at strategic locations to make better use of the already major investment in the road system.

10.1.1 TSM Projects

In many instances, the operation and safety of a roadway can be improved by installing a signal or stop sign, or by adding turn lanes at busy intersections, rather than much more expensive widening and new construction projects. Several of the projects identified in the 20-year plan (recommended in Chapters 8 and 9) are classified as TSM projects because they would improve the efficiency of the transportation system by getting vehicles through 'bottlenecks' (specific locations, such as intersections, that currently limit the flow of vehicles) where a relatively small improvement can reap large benefits.

Policy 1: The County will continue to pursue TSM improvements whenever feasible to improve the roadway system before looking at building new facilities.

10.1.2 Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS) are loosely defined as the use of modern technology to improve the function of the transportation system. This covers a wide range of projects, techniques, and ideas, some of which are already being used in the County. Examples include variable message signs that warn or guide drivers, and cameras that show road, weather, and traffic conditions on the Internet. Many other ITS concepts have the potential for substantial public benefit.

Policy 1: Marion County supports the development and installation of Intelligent Transportation System concepts benefiting residents and the traveling public.

10.1.3 Access Management

Access Management is another Transportation System Management (TSM) strategy, and it is particularly effective in improving the safety and efficiency of County roadways. Access Management attempts to minimize the conflicts between access to and from developed land and movement of traffic along the roadway. This is achieved by requiring a minimum distance between access points (driveways, streets, and access roads). Currently, it is the County's policy to provide access onto County roads in a manner and location that will protect the public safety. In general, the County attempts to hold the number of access points onto a roadway to the minimum necessary to provide adequate access to a particular parcel or group of parcels. The location and/or determination of accesses is a roadway network issue (not a land use issue), and decisions are made based on engineering review and study, and appropriate policies. (Note: see Marion County's Driveway Ordinance (#651, or subsequent document) for other requirements for driveways.)

Studies have repeatedly shown that roadways with fewer access points generally experience fewer accidents and better overall traffic flow. These studies have shown that the relative safety of travel on a roadway is inversely proportional to the number of accesses (and thus potential collision points) occurring within the stopping sight distance of a driver on the roadway. The County will continue to take measures to ensure that accesses are properly designed and constructed, and are located in order to maximize the safety and efficiency of the roadway, while maintaining an acceptable level of access. For these reasons, the County adopts these Access Spacing Standards.

Access Spacing Standards

As discussed in section 5.1.1 (Functional Classification), roadways are grouped into categories based on the character of service they are intended to provide as part of the overall transportation system. Arterials are the most important in providing vehicle capacity for through traffic. They require access to be tightly controlled in order to protect efficiency and safety along these roads. Local roads carry less traffic and therefore access requirements are less stringent. Accesses to arterials must be spaced farther apart than accesses to local roads, and more detail will be required to assure proper design of the access to these arterials. Marion County hereby adopts standards for the spacing of accesses. Recognizing that many driveways currently exist that do not meet these standards, these spacing requirements are typically applied:

1) When a new access is constructed,
2) When an existing access is substantially modified,
3) When the use of an existing access changes, or
4) As part of a construction project to improve the roadway.

Policy 1: Marion County adopts the following spacing requirements, shown in **Table 10-1**, for new or modified accesses to County roadways. These spacing standards are measured from centerline to centerline of the respective accesses and/or adjacent roadways (see Policy 4 for variance criteria and Policies 5 and 6 for cases in which longer spacings may be required).

Table 10-1
Spacing Requirements for Accesses

FUNCTIONAL CLASS	ACCESS SPACING REQUIREMENTS
Arterials[1]	500' from any intersection with a state highway, arterial or major collector. 400' from any other intersection (including a private access).
Major Collectors	400' from any intersection with an arterial or state highway 300' from any other intersection (including a private access).
Minor Collectors	300' from any intersection with an arterial or state highway. 150' from any other intersection (including a private access).
Local Roads	200' from any intersection with an arterial or state highway. 100' from any intersection with a major collector, minor collector, or local road. 50' from any intersection with a private access.

These standards are measured from the centerline of the driveway to the centerline of the adjacent facility.

Access Spacing Standards for Unincorporated Communities and County Roads in Cities That Have Not Adopted Access Spacing Standards

Several of the unincorporated communities in Marion County function similar to a small city. There are also cities that have not adopted their own access spacing standards. It is important for Marion County to ensure the function of County Roads through these areas by balancing the needs of through traffic with the need for access to local properties. Recognizing this, the County has adopted different standards for roadways within these cities and unincorporated communities.

[1] Unless a separate adopted access management standard exists that is more stringent than these standards. This is currently the case along Cordon Road.

Policy 2: Marion County adopts the following spacing requirements standards, listed in **Table 10-2**, for accesses to: 1) roadways within the boundary of an officially recognized unincorporated community and; 2) County-maintained roadways within the Urban Growth Boundary (UGB) of a city with no adopted access spacing standards (see Policy 4 for variance criteria and Policies 5 and 6 for cases in which longer spacings may be required).

Table 10-2
Spacing Requirements for New Accesses in Unincorporated Communities and County Roads in cities with no Access Spacing Standards

FUNCTIONAL CLASS	ACCESS SPACING REQUIREMENTS
Major Arterials	500' from any intersection with a state highway, arterial or major collector. 400' from any other intersection (including a private access).
Arterials	400' from any intersection with a state highway, arterial or major collector. 300' from any other intersection (including a private access).
Major Collectors	300' from any intersection with an arterial or state highway 150' from any other intersection (including a private access).
Collectors (If the City only has one Collector Class)	250' from any intersection with an arterial or state highway. 125' from any other intersection (including a private access).
Minor Collectors	200' from any intersection with an arterial or state highway. 100' from any other intersection (including a private access).
Local Roads	150' from any intersection with an arterial or state highway. 75' from any intersection with a major or minor collector 50' from any intersection with a local road or private access.

These standards are measured from the centerline of the driveway to the centerline of the adjacent facility. Within the Urban Growth Boundary of a city, the functional class of the roadway is designated in that city's Transportation System Plan or other plan adopted by the city. If the city has not adopted functional classifications, the County will determine what the classification would be.

Policy 3: For County Roads within the Urban Growth Boundary of a city that has adopted access spacing requirements (in their Transportation System Plan or other official document) the County will use their adopted spacing standards, unless in the County's judgment they would not be appropriate (see Policy 4 for variance criteria and Policies 5 and 6 for cases in which longer spacings may be required).

Policy 4: **Variance Criteria:** Variances may be granted at the authority of the Public Works Director in the following cases:

a) The property has no reasonable alternate access and the driveway spacing is the maximum that can be safely and reasonably achieved,
b) Adherence to the spacing standard would create safety or traffic operations problems,
c) The driveway provides a joint approach that serves two or more properties and results in a net reduction of approaches to the roadway, or
d) In the judgment of the Public Works Director, it would be impossible or unsafe to meet these standards and the proposed access configuration provides the best available option in terms of safety, traffic flow, environmental impacts, and access to the property.

Policy 5: In some cases, the requirements of another jurisdiction (such as the Oregon Department of Transportation) with roadways adjacent to a county road may be more restrictive than these requirements. When this is the case, the more restrictive requirement will be applied. This situation can occur at locations such as freeway interchanges.

Policy 6: In some situations longer distances between accesses may be required due to site-specific traffic concerns. In these cases Public Works will require longer spacing and/or set the appropriate location based on engineering analysis. An example would be if traffic queuing at an intersection would block the driveway during the peak hour of the design life of the project, staff may require the driveway to be located farther away from the intersection.

Other Access Management Practices

In addition to implementing access spacing requirements, the County will also look at consolidating existing accesses on County arterials and collectors in situations where entry to developed lands can still be adequately provided after consolidating access points. This action is intended to improve the operation and safety of the roadway.

One arterial where access management plays a significant role in facilitating free flow of traffic around the Salem metropolitan area is Cordon Road. To assure that we maintain its capacity and safety, the Board of Commissioners has approved requirements to limit and control further access to Cordon Road. These restrictions are consistent with and implement the land use and transportation policies of the Marion County Transportation System Plan, the Salem-Keizer Area Transportation Study Regional Transportation System Plan, and the Salem Transportation System Plan.

Land use controls are used to ensure that new development enabled by zoning changes does not adversely affect transportation facilities. In some instances, allowing a change in the land use, especially from agricultural to non-agricultural use (such as commercial or residential), also results in an unacceptable increase in traffic.

Policy 7: Land use changes that could result in increased development levels and thus higher traffic levels will be assessed for their impact to current and future traffic volume and flow, and these impacts must be appropriately mitigated (as determined by the Public Works Director in accordance with applicable standards and practices) in order for the development to be allowed.

Policy 8: An access management plan has been developed for a portion of the Wilsonville-Hubbard Hwy near Arndt Road. That plan is hereby incorporated into this plan, and is included as **Appendix F**. (Note: other access management plans have also been adopted for other specific areas).

The latest version of the Marion County Engineering Standards (or subsequent document) includes requirements on width of access, structural section, surface type, grade, and other design parameters. These standards may be acquired from the Marion County Public Works Department.

10.2 ROADWAY MAINTENANCE AND PRESERVATION

Roadway maintenance and preservation makes up an important component of the RTSP. Without proper maintenance, a roadway system would not provide the level of safety and efficiency required by its users. The terms “maintenance” and “preservation” encompass a variety of tasks and programs including pavement management, signs and pavement markings, vegetation management, gravel road maintenance, shoulder and roadside maintenance, hazard abatement, bridge and structure maintenance, construction zone management, drainage issues, and emergency response. The County’s maintenance policies are focused on the use of preventive maintenance and resurfacing to extend the life of roadway facilities.

With regard to maintenance objectives in general, **Figure 10-1** represents a road maintenance priority matrix for use in daily decision-making. It is intended to be an additional resource to County personnel, as well as a method of conveying to the public how the County prioritizes various kinds of issues.

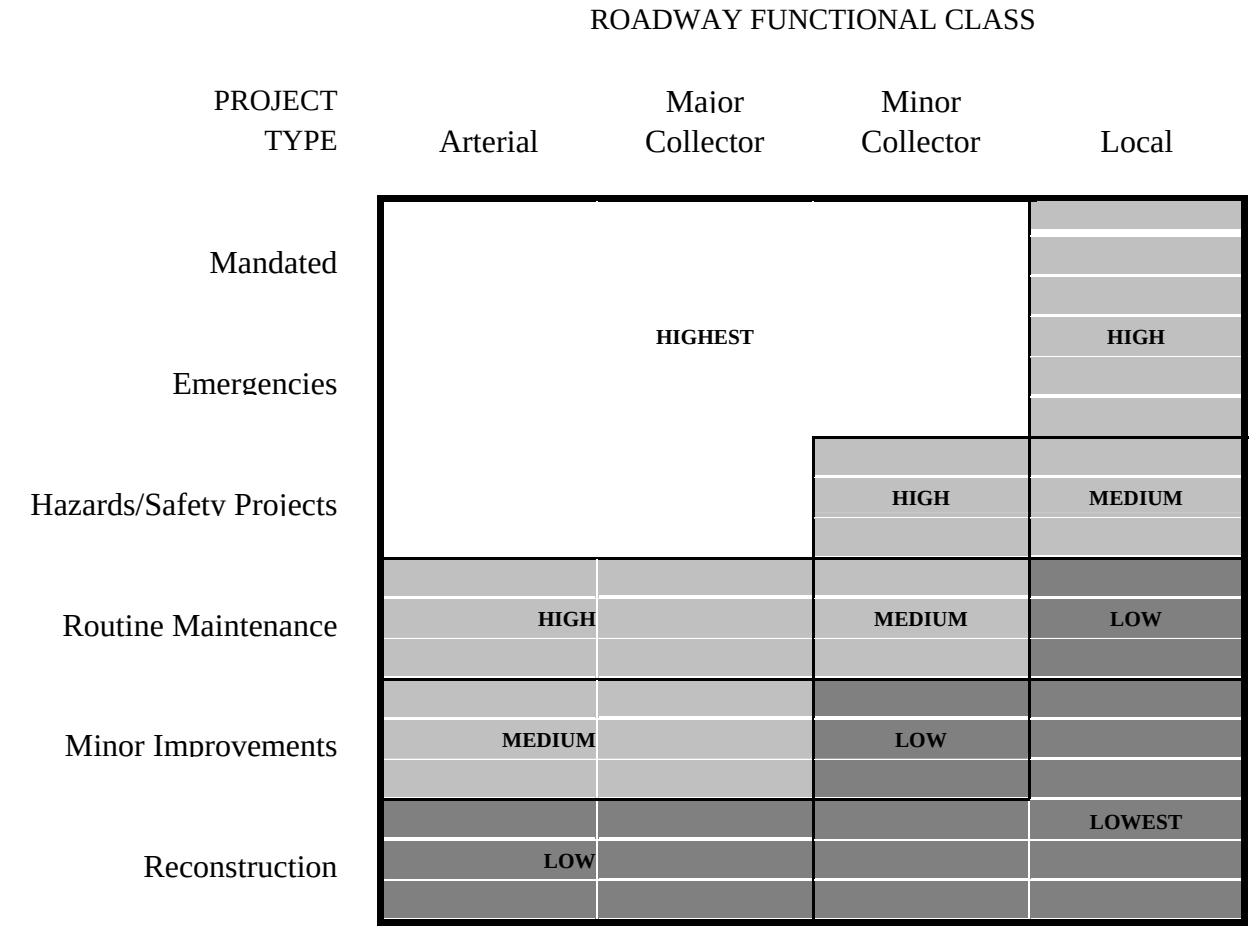


Figure 10-1
Roadway Maintenance Priority Matrix

In accordance with the federal Clean Water Act and Endangered Species Act, Marion County has adopted Best Management Practices that guide many of its roadway maintenance and preservation operations. These federal regulations, and new regulations such as Total Maximum Daily Loads, will change the way roadways are designed, constructed, and maintained. The Best Management Practices adopted under these regulations will impact some fundamental maintenance activities such as pipeline cleaning, ditch cleaning, catch basin cleaning, stream maintenance, mowing, brushing, spraying, ditch erosion, and snow and ice control. This section details maintenance policies, practices, and programs that will be used to ensure that roadways are properly maintained in the future.

10.2.1 Pavement Management

Overall Pavement Management includes several different aspects, typically in the following order: 1) review using a pavement management program; 2) resurfacing, which includes repaving, hot patching, chip sealing, slurry sealing, and crack sealing; 3) road restoration; 4) road reconstruction; and 5) localized repair and surface sweeping.

Pavement Management Program

Marion County currently uses the Metropolitan Transportation Commission (MTC) Pavement Management Program (PMP) to evaluate pavement condition and determine maintenance and resurfacing needs. The purpose of this system is to identify pavement deterioration in the early stages so that the preventive maintenance and/or resurfacing can be applied, rather than waiting until a full reconstruction is necessary. The program also assists in setting priorities for maintenance and resurfacing and determining the most economically feasible time for these treatments. This program has proven itself as a valuable tool in prioritizing resurfacing needs for the County.

Resurfacing

The County uses several surface treatments that are intended to extend the useful life of paved surfaces, add new texture to old surfaces, and seal the surface to prevent contamination or water from damaging the subgrade. The most extensive and costly in this category is total resurfacing of a road using asphaltic concrete, which generally includes shoulder upgrades and new striping. Hot patching, on the other hand, is resurfacing on a more localized scale, which may or may not involve extensive shoulder work or restriping. This is often done as a temporary measure to keep the surface useable until a more comprehensive resurfacing is appropriate.

Surface treatments like chip sealing and slurry seals are beneficial in that the treatments renew the exposed surface, seal the underlying base, and extend the life of the pavement from five to seven years. Crack sealing, on the other hand, is done solely to keep water from leaching into the base and damaging its integrity.

Road Restoration

Sometimes pavement needs to be cut or removed in order to work on utilities in the right-of-way. The entity that cuts or removes the pavement is then responsible for restoring it to an appropriate condition (as defined by Public Works). This restoration work is typically done by a contractor or utility company.

Road Reconstruction

Road reconstruction is the most expensive and comprehensive method of creating a new road surface. It involves removal of the existing surface, extensive work to the road base, and placement of an entirely new surface. We attempt to avoid this type of refinishing if at all possible, due to its cost, by ongoing preventative maintenance. Unanticipated growth in traffic volumes and truck traffic, and poor road base construction, have been the leading causes of reconstruction projects.

Localized Repair and Surface Sweeping

Localized repairs are performed on a continual basis and include cleaning and filling of potholes using either hot or cold mix, and digging out failing sections of pavement or subgrade and replacing them. The primary purpose is to provide a safe road surface and prevent damage from accelerating. Surface sweeping is used to maintain safe, clear driving surfaces and bikeways.

The County has established a regular and consistent maintenance and preservation program to protect the road system into the future. Under our program it was determined that pavement should be resurfaced on a regular cycle to maximize the life of the roadways and ensure that the infrastructure will last. The cycle determined to be the most feasible and cost-effective for the County is a 20-year cycle. This requires that an average of 50 miles be resurfaced every year. The resources allocated for the pavement management and resurfacing program are discussed further in Section 11 - Financing Plan. Policies that relate to pavement and surface management include:

Policy 1: Provide an acceptable level of surface maintenance (which may vary by class or type of roadway) on all County roadway facilities, including paved travel lanes and shoulders, and bicycle and pedestrian facilities.

Policy 2: Use routine and preventive maintenance, when appropriate, to extend the serviceability of the pavement and to prevent it from dropping below the "good" condition under the Pavement Management Program.

Policy 3: Maintain an inventory of pavement condition for all County-maintained paved roads.

Policy 4: Use an appropriate Pavement Management Program (such as the currently used Metropolitan Transportation Commission (MTC) Pavement Management Program) to identify pavement distress and resurfacing needs.

Policy 5: Allocate necessary resources to allow for resurfacing County paved roads on a 20-year cycle as funding allows.

Policy 6: Actively ensure that designated bicycle and pedestrian facilities, and other heavily used paved shoulders, are clean and free of debris.

Policy 7:
a) Require any entity working in the right-of-way to leave the roadway in the same or better condition (pavement condition index (PCI), roadway clear of debris, ditches functioning properly, clear zones, etc.) than they found it throughout all phases of construction.
b) Not allow any new pavement surface to be cut within five years of its construction except in emergencies or other exceptions at the discretion of the Public Works Director.
c) If a County Road or other facility is damaged or impacted, the County will work to recover repair costs from those responsible for the damage or impact.

10.2.2 Signs and Pavement Markings

Maintaining signs and traffic control markings is one of the most critical maintenance functions on the County roadways. The guidance provided to users of the road system, regardless of mode of travel, determines to a great degree how the network will function. Signing and striping has become the means for communicating regulations, right-of-way, warnings, directions to destinations, travel and emergency information, and other information. Marion County has many specific policies and guidelines regarding signing and marking along its roadways (refer to the appropriate policy for specific situations). See also Marion County's road naming ordinance (#1183) for naming requirements for roads. General policies related to signing and pavement markings include:

Policy 1: Maintain signs and pavement markings at an acceptable level to ensure a safe and efficient roadway system, without unnecessary cluttering of signs.

Policy 2: Maintain an inventory of all signing and pavement markings on County roads and roads within County rights-of-way.

Policy 3: Maintain signing and striping within the parameters of the Manual of Uniform Traffic Control Devices (MUTCD), Oregon MUTCD Supplemental Regulations, Oregon Department of Transportation Guidelines, and other accepted transportation engineering documents unless altered by appropriate County departmental policy and/or County engineering review.

10.2.3 Vegetation Management

Vegetation control is an ongoing task in the Willamette Valley. Given the high soil fertility and constant moisture, vegetation grows rapidly and can be very thick. This type of growth requires constant attention to manage and plays an important part in routine maintenance operations (so that vegetation does not obscure driver visibility or cause other problems). Policies that address management of vegetation include:

Policy 1: Maintain roadways and immediate clear zones free of encroaching vegetation so that legal (statutory or permitted) vehicles can travel safely and roadside hazards are minimized.

Policy 2: Actively ensure that vegetation along County roadways does not obscure views of roadway signage, structures, or intersecting accesses.

Policy 3: Actively ensure that vegetation along County roadways does not create sight distance obstructions at roadway intersections.

Policy 4: Use an integrated vegetation management system (mowing, brushing, spraying, tree removal, private maintenance, etc.) to control vegetation along roadways.

10.2.4 Gravel Road Maintenance

The 197 miles of rural gravel County roads comprise a significant component of maintenance work that we perform. Grading along these roads occurs in fall, winter and spring months when moisture levels are most favorable. The County also uses a dust-control agent to both help control "washboarding" on steep gravel roads and reduce dust adjacent to citizens' residences at their request and cost. Gravel road maintenance is relatively inexpensive compared to the cost to maintain the same road if it were paved.

Many requests to pave roads are received each year. In the past, the County had paved some gravel roads through a local improvement district that provided for a cost-sharing agreement with local residents. Due to limited County funding, this program has been discontinued. Citizens can pave their road by submitting plans for the project that meet County standards, obtaining appropriate permits, and paying their contractor for the improvements.

Policies with regard to gravel roads include:

Policy 1: Provide an acceptable level of surface maintenance on County gravel roadways to maintain reasonable passage and general safety.

Policy 2: Provide options (as appropriate and as budget constraints allow) for paving or stabilizing gravel roads.

10.2.5 Shoulder and Roadside Maintenance

Shoulder and roadside maintenance consists of removing vegetation and reshaping shoulders, adding support to fill banks, removal of roadside objects, bank work, mowing, herbicide spraying, brush-cutting, and many other activities. In general, shoulders in the rural areas are provided to preserve the actual travel surface of the roadway and to allow for emergency maneuvers and occasional emergency parking. Drainage ditches, narrow rights-of-way, and other geographic conditions mean that many rural roads have no or minimal shoulders. Because of these conditions it is unlikely that shoulders will be added to most of these roads. It is important, though, to maintain existing shoulders in as good a condition as resources allow.

In addition, maintaining a clear zone along the roadway is necessary for safety. It requires the removal of obstructions through brushing, bank removal, tree removal, relocating utility poles and boxes, killing grass on gravel shoulders, picking up dumped garbage, etc. Some of these tasks are controversial as they can impact landscaping, environmentally sensitive areas, and possibly even property values. However, clear zones add to the safety of individuals using the roadway, which is a primary goal for the County.

Policies include:

Policy 1: Provide safe and useable shoulders and clear zones on County roads, to the extent possible, with priority given to arterials and collectors.

Policy 2: Maintain shoulders and ditches along County roadways to provide adequate drainage and protect the investment in the roadway system.

Policy 3: Conduct a roadside spraying program that is sensitive to environmental concerns.

Policy 4: Utilize alternatives to roadside spraying when possible and appropriate.

Policy 5: Conduct maintenance activities with due consideration to potential impacts on adjacent land.

Policy 6: The County may require relocation of roadside features (such as ditches, poles, equipment, etc.) to improve shoulders, clear zones, and other functional aspects of the roadway.

10.2.6 Hazard Abatement

Many things can constitute a hazard along a roadway. The County receives complaints about trees, mailbox structures, signs, boulders, landscaping, utility structures, bridge abutments, parked vehicles, dumped hazardous materials, and other obstacles. County crews notice many additional items while in the process of doing maintenance, construction, or other fieldwork. Many of the obstructions can eventually be abated, but some, like roadside trees in wooded areas or utility poles that cannot be relocated outside of the right-of-way, cannot reasonably be eliminated. Given the County's limited resources, hazard removals must be carefully evaluated and prioritized, with the most serious hazards warranting the most attention. The County will continue to work with property owners to mitigate hazards when their landscaping creates a problem. Policies to guide the County in addressing these issues include:

Policy 1: Establish a 10-foot clear zone adjacent to roadways along all public rights-of-way through actively pursuing removal of obstacles on or encroaching upon the roadway that present a hazard to motorists and other users of the system in a timely manner and in accordance with departmental policies.

Policy 2: Prioritize complaints based on the degree of the hazard and the exposure to the public as indicated by the road classification, traffic volume, and speed of traffic.

Policy 3: Actively pursue the removal of hazardous substances in County road rights-of-way.

Policy 4: Remove large deceased animals from the right-of-way if they create a traffic hazard.

Policy 5: Routinely review accidents to identify and abate conditions as appropriate and feasible to reduce the recurrence of similar accidents

10.2.7 Bridge and Structure Maintenance

Marion County maintains over 140 bridges and hundreds of other structures such as culverts and guardrail. They all require routine maintenance to slow aging and deterioration that will inevitably occur. Many of these structures are old and outdated for the traffic using them today. Bridge replacement is extremely expensive and typically cannot be funded with County resources alone. Federal funds have been, and are anticipated to be, the primary means of replacing structures that are approaching irreparable, if not failure, conditions. Maintenance of structures should focus on extending the useable life as much as possible. Policies that address these structures include:

Policy 1: Maintain bridges and structures to promote safety and maximize useful life.

Policy 2: Conduct structural evaluations on a regular basis (current cycle is every two years).

Policy 3: Maintain an inventory of all structures including design ratings, operational ratings, and inspection records.

10.2.8 Construction Zone Management

Work zones present a unique and important issue for all modes of travel and for road workers. Safety is the primary concern, but confusion and disruption are also significant issues. To address these concerns, the following policies exist:

Policy 1: Require all contractors and work crews, public or private, adhere to all signing and safety regulations prescribed for construction and work zones affecting the public's use of the right-of-way.

Policy 2: Require all construction zones on County roadways adhere to appropriate signing locations, spacing, and placement only during actual work periods.

Policy 3: Permits are required for any work done in a County right of way by any entity other than the County Public Works Department.

Policy 4: Recognizing that closure of busy roads (even closure of lanes on or work adjacent to a busy road) can have significant detrimental impacts on the community by impeding traffic flow, the Public Works Director has authority to determine requirements for maintenance of traffic flow through work zones. This may include prohibiting closure or traffic impedance, requiring a certain travel width or number of lanes be kept open, limiting the closure or impedance to a specified length of time, or only allowing the closure or impedance during specific times of day or of the year, among other potential measures.

10.2.9 Drainage Issues

Elimination of water from roadways is crucial to the safety and longevity of the road surface. Roadside ditches receive most of this water and either channel it to waterways or hold it until it seeps into the ground. The large amount of rain (over 40 inches average annual precipitation) in the Willamette Valley sometimes fills the ditches and creates minor flooding problems. The Willamette Valley basin is also susceptible to large scale flooding as was experienced in February 1996. Routine maintenance such as unplugging blocked culverts, replacing broken tiles, adding catch basins, removing debris at bridges, and cleaning ditches is necessary for a system to function at its capacity and handle the storm water. Failure of the system in extreme weather conditions can lead to washed-away sections of road, excessive flooding, and closed strategic corridors. Given the unavoidable nature of flooding potential, it is critical to maintain an aggressive maintenance program. However, the County is limited in that it cannot expend public funds to improve or maintain drainage on private property. Marion County and the State of Oregon have several policies relating to drainage issues (including stormwater detention, effects on neighboring property, environmental protection, and many other issues); refer to the appropriate policy for more specific information. The following policies assist the County in its attempts to prevent drainage problems from damaging the roadway system:

Policy 1: Give priority to drainage problems that jeopardize the safety of the traveling public or the integrity of the road system.

Policy 2: Conduct routine and cyclical maintenance of roadside ditches and drainage structures to sustain an acceptable level of roadway drainage.

Policy 3: Discourage the installation of drainage pipe along roadside property frontage and in any ditch that would need a culvert 30-inches or larger diameter.

Policy 4: When developers construct a significant amount of impermeable surface area, require that the developer provide appropriate stormwater detention.

10.2.10 Emergency Response

A variety of weather conditions and catastrophic events like earthquakes require an appropriate measure of emergency response. Limited snowfall, typical rainfall amounts, and minor windstorms are expected in this region and can be handled per normal maintenance operations. Large or repeated snowstorms, large amounts of rainfall, large landslides, strong windstorms, tornadoes, earthquakes, dam failures, forest fires, and any number of other events could present a challenge to the County. Besides damage and casualty issues, which are addressed in other forums, the transportation network becomes especially critical in times of crisis. The following policies are general guidelines for the County's approach to address emergency situations with regard to the transportation system:

Policy 1: Preserve roadway safety through mobility on the strategic corridors (identified in section 7) to minimize loss of life or injury.

Policy 2: Coordinate with and assist other agencies in response to emergencies whenever possible and feasible.

Policy 3: Evaluate non-emergency repairs of damage created by severe weather and other emergency events to determine the cost-effectiveness and appropriate prioritization with existing transportation needs.

Policy 4: When inclement weather, natural disasters, emergencies, and other situations arise, Marion County will keep working as resources and conditions allow to keep the roads open, safe, and passable. First priority will typically be given to strategic routes, then other roads by functional class and as appropriate for the situation.

10.3 TRANSPORTATION POLICIES

In developing this transportation system plan, the County analyzed information and set priorities for the future function and operation of the transportation system. These priorities include maintenance and operation of the existing system, capital improvements for enhancing safety and level-of-service of the transportation system, integrating land-use decisions with transportation considerations, and balancing transportation needs with community and environmental needs. These priorities are implemented through policies designed to help guide the decision-making process related to transportation facilities. This section details those policies that the County will use in the planning and development of these facilities. Some policies establish priorities for the County in terms of allocating resources to various projects and activities, while others call for consideration of the effects of transportation facilities on valuable farm lands and other environmentally sensitive areas. The policies are also intended to ensure that a variety of travel modes are considered in the planning and development of a transportation system, and transportation choices are provided to the traveling public.

The policies in this section are the outcome of significant public involvement and review by interested groups. Many policies come directly from or are a revision of existing policies in the 1981 Marion County Comprehensive Plan. The policies in this section are intended to replace the existing transportation policies from that plan, and ordinances will be drafted subsequent to adoption to effect these changes. These new and revised policies are expected to ensure the County transportation system will satisfy the needs of residents and other users for the next 20 years. For organizational purposes, the policies are divided into seven categories: 1) Transportation System Planning Policies; 2) Resource Allocation Policies; 3) Bicycle, Pedestrian, and Public Transportation Policies; 4) Air, Water, Rail, Energy, and Pipeline Transportation Policies; 5) Development and Access Policies; 6) Right of Way Policies; and 7) Urban Growth Management Framework Coordination Policies.

10.3.1 Transportation System Planning Policies

Transportation system planning policies serve as general guidelines for achieving a safe and efficient transportation system. These policies address transportation priorities for the County and address desired operational characteristics. The policies also provide vision for planning the future transportation system.

Policy 1: The general priorities for Marion County, with regard to the County Road System, are in order of importance:

1) Preservation and maintenance of the existing road system.
2) Safety improvements and enhancements.
3) Capacity enhancements and growth-related projects.

Policy 2: The County will evaluate all investments in the transportation system for cost-effectiveness, fiscal responsibility, economic efficiencies, and practicality.

Policy 3: The County will re-evaluate, update, and adopt design standards and various policies that enhance safety, capacity, and efficient life of the transportation network.

Policy 4: a) The County will work with each community to consider the goals and visions of that community in developing and maintaining the transportation system. This will include coordination of the County's transportation plans with their transportation plans. Deviation from a community's desire may occur when addressing issues involving safety, significant added expense, modernization projects, liability, and providing services that are in the best interests of the public.

b) Within the Urban Growth Boundary of an incorporated city, Marion County Public Works will apply roadway design standards and criteria in the Transportation System Plan (TSP) adopted by that city except in cases where, in the engineering judgment of the Marion County Public Works Department, it would not be appropriate to do so. In the absence of adopted standards or a TSP by a city, Marion County Public Works will use its own engineering standards and/or judgment to determine the appropriate planning direction or standard to apply.

Policy 5: Levels-of-Service considered acceptable in rural areas include:

1) LOS D or better with a volume/capacity ratio (v/c) of 0.85 or better for signalized, all-way stop, and roundabout intersections.
2) LOS E or better with a volume/capacity ratio (v/c) of 0.90 or better for other unsignalized intersections.
3) LOS D or better with a volume/capacity ratio (v/c) of 0.60 or better for road segments.

Policy 6: The County will pursue and implement Transportation Demand Management (TDM) and Transportation System Management (TSM) strategies whenever feasible as an alternative to building new transportation facilities (see sections 8.7 and 10.1 for descriptions of these strategies).

Policy 7: To the extent possible, the County envisions a modified grid transportation system in the rural areas (as allowed by geography and demanded by use) that allows all users reasonable access to higher-function roads, minimizes out-of-direction travel, delivers reasonable travel times, and in many cases, allows circumferential flows around the many incorporated areas within Marion County.

Policy 8: The County recognizes the role of State Highways and County Arterials as the backbone of the transportation network. These roads are critical for everyday transportation and serve as critical lifelines in emergency situations. The County will support efforts to enhance and maintain the function of these roads through land use policies, access management strategies, and roadway improvements.

Policy 9: The County recognizes that it may be appropriate to consider transfer of jurisdiction between State highways and County roads in order to ensure that State highways function as regional routes and County roads function as more localized routes. However, the County will not accept any roads into the County system that do not meet County standards.

Policy 10: To encourage tourism, the County supports the concept of Scenic Routes, Tour Routes, and Scenic Byways, and will consider enhancements that preserve or provide scenic or historic values to the transportation system.

Policy 11: The County recognizes the importance of facilitating freight movement. With this in mind, the strategic routes designated in Figure 7-1 are also hereby designated freight routes. Effort will be made to facilitate freight movement on freight routes.

Policy 12: Effort will be made to reduce conflicts between mobility of freight and livability of communities along these routes.

10.3.2 Resource Allocation Policies

Resource allocation policies provide guidelines for how funds will be spent on transportation related activities. These policies are intended to provide appropriate allocation of resources to address transportation priorities and necessities.

Policy 1: Marion County will not spend Public Works funds on activities outside of public right-of-way. Work on privately maintained roadways or for private entities may be possible under Private Work Orders.

Policy 2: County funds expended on Local Access Roads shall be in accordance with ORS 368.031 and shall be documented and justified in a consistent manner. County resources shall not be dedicated to other activities on these roads unless covered by a Private Work Order.

Policy 3: If a County Road or other facility is damaged or impacted, the County will work to recover repair costs from those responsible for the damage or impact.

Policy 4: The County may use its discretion in selecting projects out of the suggested order of priority, if deemed this is in the best interest of the overall transportation system and general public for reasons including safety, time-sensitive availability of additional funds, improved coordination of work, or improved efficiencies.

Policy 5: The County will encourage joint projects with the private sector, affected user groups, or individual citizens, if it improves or allows a project on a County roadway to proceed that might otherwise not be accomplished. This participation may be in the form of material and resource contributions, local

improvement districts, right-of-way dedications, or other funding sources such as user fees.

Policy 6: The County will comply with ORS 366.514 requiring one percent of the funds it receives from the State Highway Fund to be expended on bicycle and pedestrian facilities.

10.3.3 Bicycle, Pedestrian, and Public Transportation Policies

Bicycle, pedestrian, and public transportation is an important component of the transportation system plan. These policies are intended to ensure that these modes will be considered in the planning and development of transportation facilities, and to help make these modes more viable options for the traveling public.

Policy 1: The County will consider the impact County transportation projects have on cycling and pedestrian activities.

Policy 2: All new Arterials and Major Collectors will be constructed with paved shoulders.

Policy 3: The County will consider the needs of those individuals who are transportation-disadvantaged or disabled when planning or reviewing transportation improvements.

Policy 4: The County will encourage and facilitate the ability of transit providers such as the Salem Area Transit District and Chemeketa Area Regional Transportation System (CARTS) to provide services to areas outside of designated urban growth boundaries.

Policy 5: To the extent feasible, the County will facilitate the development of Park-and-Ride/Pool lots at strategic locations throughout the County, in coordination with transit providers where appropriate.

Policy 6: The County supports efforts to develop off-street multi-use paths or trails (which typically will be used by bicyclists and pedestrians) where appropriate. These paths or trails will be especially encouraged where they connect trip generators and attractors (such as cities and parks) and where they take advantage of existing scenery (such as along scenic rivers) and available resources (such as powerlines, old rail lines, along rivers, and in existing right-of-way or easements).

Policy 7: In order to promote bicycle and pedestrian travel within the cities of Marion County, and recognizing that fast-moving, high-volume, and heavy vehicular traffic is detrimental to the ‘walkability’ and ‘bikeability’ of a city, the County generally supports efforts to divert regional traffic from flowing through the ‘downtown’ of a city. This may be through simple measures such

as signing and traffic control, moderate measures such as improvement of existing roadways, or more complex measures such as the provision of new roadways or bypasses. The County is especially supportive of such efforts when the affected city is a major proponent of these measures.

10.3.4 Air, Rail, Water, Energy, and Pipeline Transportation Policies

These policies address air, rail, water, energy, and pipeline transportation in the County. These modes are an important part of the existing and future transportation network in terms of moving freight, passengers, services, and information in the County.

Policy 1: Airports and airstrips shall be located in areas that are safe for air operations and should be compatible with surrounding uses.

Policy 2: The County should review and take appropriate actions to adopt State master plans for public airports in Marion County.

Policy 3: The County will adopt appropriate provisions (including plans, ordinances, and inter-governmental agreements) to protect the public airports from incompatible structures and uses. These provisions will be consistent with Federal Aviation Administration guidelines.

Policy 4: The County will discourage noise sensitive uses from locating in close proximity to public airports.

Policy 5: The County will encourage the establishment of cost-effective passenger and commuter rail service in the Willamette Valley.

Policy 6: The County generally supports development of new or expanded freight rail service that would improve the efficiency of freight movement, as long as its impacts can be appropriately addressed.

Policy 7: The County supports efforts to evaluate, maintain, or develop the capability of the Willamette River as a navigable waterway and recreational area.

Policy 8: The County will encourage the continued use of underground pipelines and telecommunication lines that minimize the need for surface shipping and that are compatible with established land uses.

Policy 9: The County encourages cooperation between energy and utility companies for the more efficient provision of energy and utilities.

Policy 10: The County encourages (and often requires) joint use of trenches by different utilities where it would be safe and practical to do so.

Policy 11: The County generally supports measures that conserve the amount of energy resources used for transportation in and through the County.

10.3.5 Development and Access Policies

Development and access policies provide guidelines for linking transportation and land use in an attempt to provide suitable transportation facilities while protecting and preserving the agricultural and rural nature of the County. The policies also outline right-of-way and roadway improvement requirements for new developments in the County.

These policies are particularly important because private developers, often through the subdivision process, are constructing most new Local roads and many of the projects that widen or enhance Arterials and Collectors.

Policy 1: Additional interchanges (access points) on Interstate 5 from the northern County line to the Chemawa Interchange, and from the Sunnyside Interchange to the southern County line will be discouraged (except for near Woodburn - see chapter 8), unless it can be shown through a comprehensive study and supported by the County that a new interchange is appropriate for regional access to the Interstate system.

Policy 2: Transportation facilities should be developed and maintained in such a manner as to minimize negative impact to valuable soil, timber, water, scenic, or cultural resources.

Policy 3: The County will consider and strive to minimize the negative impacts to surrounding land uses and communities in selection and implementation of transportation projects.

Policy 4: Development proposals and changes in land use designations shall conform to any sub-area management plans created or adopted by Marion County.

Policy 5: The County will discourage sign proliferation in rural areas, including billboard and sign advertising.

Policy 6: Rural residential development adjacent to or near major roadways should be designed to minimize adverse effects of traffic noise, traffic volume, and other transportation-related impacts.

Policy 7: To prevent exceeding the function and capacity of any component of the transportation system, the County will consider roadway functional classification, capacity, and current conditions as primary criteria for proposed changes in land use designations and proposed land use developments. In addition, present and anticipated safety issues shall also be significant criteria.

Policy 8: The County shall review land use actions, development proposals, and large transportation projects in the region for impacts to the transportation system and facilities. If the impacts are deemed significant by the County and cannot be mitigated to the County's satisfaction, the action shall be denied or modified until the impacts are acceptable. The County shall also consider the impact these have to affected communities and urban areas.

Policy 9: Access to developments must be from roadways with appropriate Functional Classifications and improved to appropriate standards. **Table 10-3** shows the maximum trip generation for new or expanded developments based on the Functional Classification and character of the roadway from which it gains access:

Table 10-3
Maximum trip generation of developments by Functional Classification of Roadway

FUNCTIONAL CLASSIFICATION	TRIPS PER DAY	TRIPS PER EVENT
Local (with gravel surface)	200	400
Local (with paved surface)	750	2,000
Minor Collector	1,500	5,000
Major Collector	3,000	8,000
Arterial	No Limit by this Policy	No Limit by this Policy

The 'trips per event' column is only to be used for developments (such as ampitheaters and stadiums) intended to draw large numbers of spectators for certain events (occurring less than 20 times per year), but much lower volumes of traffic otherwise. All other developments shall use the 'trips per day' column to assess the suitability of a road to provide access. For developments with multiple access routes, each route will be assessed based on the number of trips (in the estimation of the Public Works Department) expected to use that route. For developments anticipated to generate a significant number of truck trips, these numbers will be adjusted to reflect the increased impact of the truck traffic on the transportation system.

Proposed developments larger than the thresholds in **Table 10-3** may be allowed if the Public Works Director can determine that the development's transportation system impacts will be mitigated to satisfactory levels and the developer improves the affected roadway(s) to appropriate standards as determined by the Public Works Director.

The Public Works Director has authority to require a developer to improve a roadway to meet standards if the Functional Classification of the roadway is appropriate for the size of the development, but the existing roadway does not meet an appropriate standard level.

Policy 10: a) The number of access points on arterial and major collector roadways shall be kept to a minimum to reduce the interruption to traffic flow and to promote safety. All new or expanded-use accesses must meet the access management standards of this plan (see section 10.1.3).
b) If a property is partitioned, all platted parcels of that property should use one common access to the road system.
c) Loop driveways are discouraged

Policy 11: a) Direct access to arterials from adjacent parcels should not be allowed if alternative access is available or can be made available.
b) If a parcel has access options onto more than one roadway, the access should be derived from the road with the lower functional class, and, if of the same functional class, the road with the lower traffic volume and fewer potential conflicts.
c) Likewise, where property abuts both a County or public use road and a State highway, the preferred access will be onto the County or public use road (unless the roads' functional classifications would indicate otherwise).

Policy 12: All new or modified accesses to an arterial shall be paved to a mimimum width of 20 feet for a typical vehicle length (or longer if necessary) from the edge of the roadway to control drainage and prevent rock and other debris from accumulating on the Arterial.

Policy 13: a) To minimize and eliminate hazards along public roadways, the County shall review and approve all proposed driveways and accesses (including all measurable access modifications and significant increases in use of an access) to County roads; and to local access roads as resources allow.
b) Accesses shall be located at the safest site possible, and shall meet the stopping sight distance requirements specified in Marion County's design standards. Actions required to obtain these stopping sight distances shall be required as a condition of approval of the access permit.
c) Accesses should be consolidated, whenever feasible, to minimize the number of access points.

Policy 14: Driveways, internal circulation areas, and parking areas shall be designed so that traffic will not back onto arterials or major collectors, or any other facility where such conditions would create a hazard.

Policy 15: Where there are several adjacent parcels with narrow frontages, or where sight distance is inadequate, a frontage road or combined driveway may be required.

Policy 16: Access to new State and large County parks should be provided by roads of minor collector or higher functional classification.

Policy 17:
a) Appropriate notice of comment periods or public hearings shall be mailed to ODOT for any property requesting access to a State highway and any land use change or development within 500 feet of a State highway, or 1320 feet of an interchange.
b) The Oregon Department of Aviation shall be notified of any development within 500 feet of a public use airport.

Policy 18: If land to be subdivided, rezoned, or partitioned will cause the termination of a roadway or borders a roadway right-of-way of less than standard width, the applicant shall dedicate sufficient land to provide for a cul-de-sac or to increase the half (or halves) of right-of-way bordering this land to one-half of the standard width.

Policy 19:
a) New private roadways (those on private property and maintained with private funds) shall not be approved as access to more than four parcels except in Planned Unit Developments.
b) When private roadways are approved as part of a subdivision or planned development, the roadways shall be constructed and completed to County standards prior to the recording of the plat. The developer shall certify in writing that the roadways were constructed to County standards.
c) The maintenance of privately owned roads is neither the responsibility nor liability of the County.
d) The property owner shall provide a recorded road maintenance agreement for all new development accessing private roads, prior to plat approval.

Policy 20: Building permits for new home sites on vacant parcels shall not be approved on previously established private roads serving four or more dwellings unless no other means of providing access to the property is available and appropriate land-use approvals are obtained. When these approvals are granted, the applicants shall be required to sign and record an agreement to participate in any future road improvement agreements and/or maintenance agreements.

Policy 21: No new local access roads (as defined in ORS 368.001) shall be created in Marion County.

Policy 22: New public streets and public street improvements shall be developed to County adopted standards, and the development will not be issued occupancy permits or final inspection until these streets have been constructed and the Public Works Department has accepted their design and construction.

Policy 23: On a Local Access Road with four or more existing parcels (not counting parcels with frontage on County roadways), no new parcels shall be created that would have access to the road unless the road is improved to County standards.

Policy 24: On a Local Access Road with fewer than four legally created parcels (not counting parcels with frontage on County roadways), new parcels may be allowed access to the road as long as the total number of parcels receiving access does not exceed four.

Policy 25: All new developments shall be reviewed to ensure that they have an adequate stormwater system. Specific requirements can be found in Marion County's Engineering Standards (or subsequent document).

Policy 26: Large developments are discouraged on dead-end or no-outlet roads.

10.3.6 Right Of Way Policies

There is a significant amount of public right-of-way in Marion County. Much of it is occupied by roads, while some remains undeveloped. Policies with respect to use of this right-of-way include:

Policy 1: To the extent possible, the County will utilize existing facilities and rights-of-way as the foundation for those intra- and inter-county facilities needed to accommodate anticipated growth and facilitate movement.

Policy 2: New transportation facilities of all types should use existing rights-of-way to the extent possible to minimize disruption to existing land use.

Policy 3: The development of unopened, dedicated public rights-of-way will be reviewed by the County for consistency with land use and other policies. When opening of the road is appropriate, a permit will be required, and adequate roadway development standards shall be met.

Policy 4: The County will not abandon or vacate public rights-of-way unless it has been determined beyond reasonable question that it is in the best interest of the general public to not ever have the right-of-way available to the general public for use as a roadway, bicycle/pedestrian path, or any other use.

Policy 5: The County will restrict use of public rights-of-way (such as through posted restrictions or gates), roadways and structures to a user, or group of users, only if it is deemed appropriate for purposes of safety, roadway preservation, or other engineering reasons.

Policy 6: A Special Setback of 30 feet from the existing roadway centerline exists for all County roads unless a larger Special Setback is designated through another policy.

10.3.7 Urban Growth Management Framework Coordination Policies

The following policies are part of the adopted Urban Growth Management Framework that is part of the urbanization element of the Marion County Comprehensive Plan.

Policy 1: Marion County shall jointly plan with communities to meet the transportation needs in the future.

Policy 2: Communities should implement street connectivity standards.

Policy 3: Coordinate the enhancement or addition of transit connections within and between cities.

Policy 4: Allow for a complementary mix of land uses and transportation systems.

Policy 5: Encourage coordination of traffic calming methods.

Policy 6: Improve key freight routes.

Policy 7: City plans should improve the walking and biking environment

See the Urban Growth Management Framework and the Urbanization Element of the Marion County Comprehensive Plan for the Coordination Guidelines that provide detailed implementation of these policies.

10.4 FUTURE EVALUATION OF TRANSPORTATION ISSUES

Transportation issues and potential projects will arise on a continuous basis. To provide stability for the plan, it is helpful to have a procedure in place to develop, evaluate, and prioritize these issues. For purposes of this plan, the following guidelines will be used to update the plan, the future volume projections, and the associated project lists as new information becomes available:

New issues or suggested improvements will be reviewed by Marion County Public Works staff to determine if the project is feasible or even possible to pursue. Since the review process is somewhat subjective, several key issues will be used to determine the feasibility of each project. These issues include: whether the project is legal to pursue; whether the project addresses or corrects the problem identified at that location; whether the project conforms to generally accepted engineering principles; whether physical, environmental, or engineering limitations prevent the project from being constructed; how much benefit would come from the project relative to how much the project would cost; whether the project is 'in line' with the County's future plans for that area; and other issues that will help to determine the feasibility of pursuing the project.

Issues that are deemed feasible and appropriate for further investigation will be evaluated and prioritized using the project prioritization matrix system described in Section 8.1. The assigned numerical value and the resulting location of the project in the prioritized list of improvements will determine the likelihood of that project being addressed within the 20-year planning period.

Section 11, the **Financing Plan,** contains a list of the projects planned within the 20-year time frame of this plan. This list is much shorter than the list of recommended projects in Section 8 due to funding limitations. Projects considered to be beneficial enough to be pursued in the 20-year period warrant additional evaluation and planning level cost estimation. These projects receive additional analysis to determine their relative benefit, cost-effectiveness, and availability of funding for the project, and are then prioritized using the project prioritization matrix. The highest-rated projects have then been organized into five-year time frames based on our estimate of their desirability and when they are likely to get done with available funding.

Projects listed as Recommended Projects in Section 8 but not as funded projects in Section 11 are next in line to be added to the 20-year project list as additional funds become available, or as projects currently on the 20-year list are completed. These Recommended Projects are hereby authorized by this plan, and are good candidates to pursue with grant funding and/or other sources of revenue as they become available.

A *20-Year List of Recommended Improvements* will be maintained by the Marion County Department of Public Works.

CHAPTER 11: FINANCING PLAN

The purpose of this chapter is to describe how the County intends to fund the projects recommended in this plan. The cost to fund the rural 20-year recommended improvements is estimated to be $104 million. However, this represents only part of the total cost for all of the transportation needs identified. The cost to address the remaining rural needs is estimated to be $25 million, and the total urban needs are anticipated to exceed $100 million. The total cost to address all of the identified needs would be at least $229 million, or $11 million per year over 20 years, far beyond our available funding of about $1 million per year.

The Transportation Planning Rule requires that the plan include a financing program that evaluates the ability of existing and potential funding sources to cover the cost of proposed transportation improvements. This section provides an analysis of anticipated funding levels for transportation improvements over the next 20 years and provides a breakdown of how funds are generally allocated by the County Public Works Department. A timeline for the planned transportation improvements along with their cost estimates is included as part of this financing plan. At this time, the County does not anticipate having the necessary level of funding available for all of the recommended 20-year transportation improvements. Instead, the County has divided the plan into three funding categories: 1) funded 20-year improvements, 2) unfunded recommended 20-year improvements, and 3) remaining unfunded needs. Each of these categories is detailed in this section.

11.1 FUNDING FOR TRANSPORTATION IMPROVEMENTS

Marion County currently funds its transportation projects and maintenance through its Public Works department. In 2004, the Marion County Public Works Department received approximately $24.7 million in revenue for road and street purposes. The three largest sources of revenue for the Public Works Department are the Oregon Highway Fund Apportionment, the Oregon Transportation Investment Act III (OTIA III), and the National Forest Revenue.

The Oregon Highway Fund accounts for approximately 52% of the 2004 revenue of the Public Works Department. The fund is comprised of state-imposed transportation user fees in the form of fuel taxes, weight mile taxes on trucks, and vehicle registration fees. Approximately 24% of the fund is shared with the counties and 16% is shared with cities. These shared funds are distributed to individual counties based on their share of vehicle registrations, and to individual cities based on their population. Marion County Public Works is receiving $12.8 million (52% of the budget) from this fund in 2004. In 2004-5 the department is also receiving $5.1 million (or 21% of the budget) from the State through the Oregon Transportation Investment Act III (OTIA III) for replacement of two bridges. The next largest source of revenue has been the National Forest Revenue, which consists of receipts from the Secure Rural Schools and Communities Self-Determination Act of 2000. These receipts account for about 10% of the Department's revenues. In addition, OTIA III maintenance dollars provide the County with $1.2 million (5% of the budget) in transportation system funding per year for the next 10 years.

Since the adoption of the 1998 Rural Transportation System Plan, Marion County has adopted System Development Charges (SDCs) that are paid by new development outside Urban Growth Boundaries for

their impact to the general transportation system. System Development Charges have also been adopted for developments in the Stayton, Silverton, Woodburn, and Salem Urban Growth Boundaries, and these revenues are used to fund growth and capacity-related improvements within those Urban Growth Boundaries. Marion County receives approximately $465,000 (2% of budget) in SDC funds annually, which are used to fund growth and capacity-related projects.

The other sources of receipts which make up the remaining 11% of the Department's 2004 revenue include the State general fund, local or special benefit area assessments (LID, EID, other specific area), interest income, traffic fines, permits, receipts from other local governments, mineral leases, and other federal fund receipts. **Figure 11-1** shows the sources of receipts that make up the annual revenue for the Public Works Department.

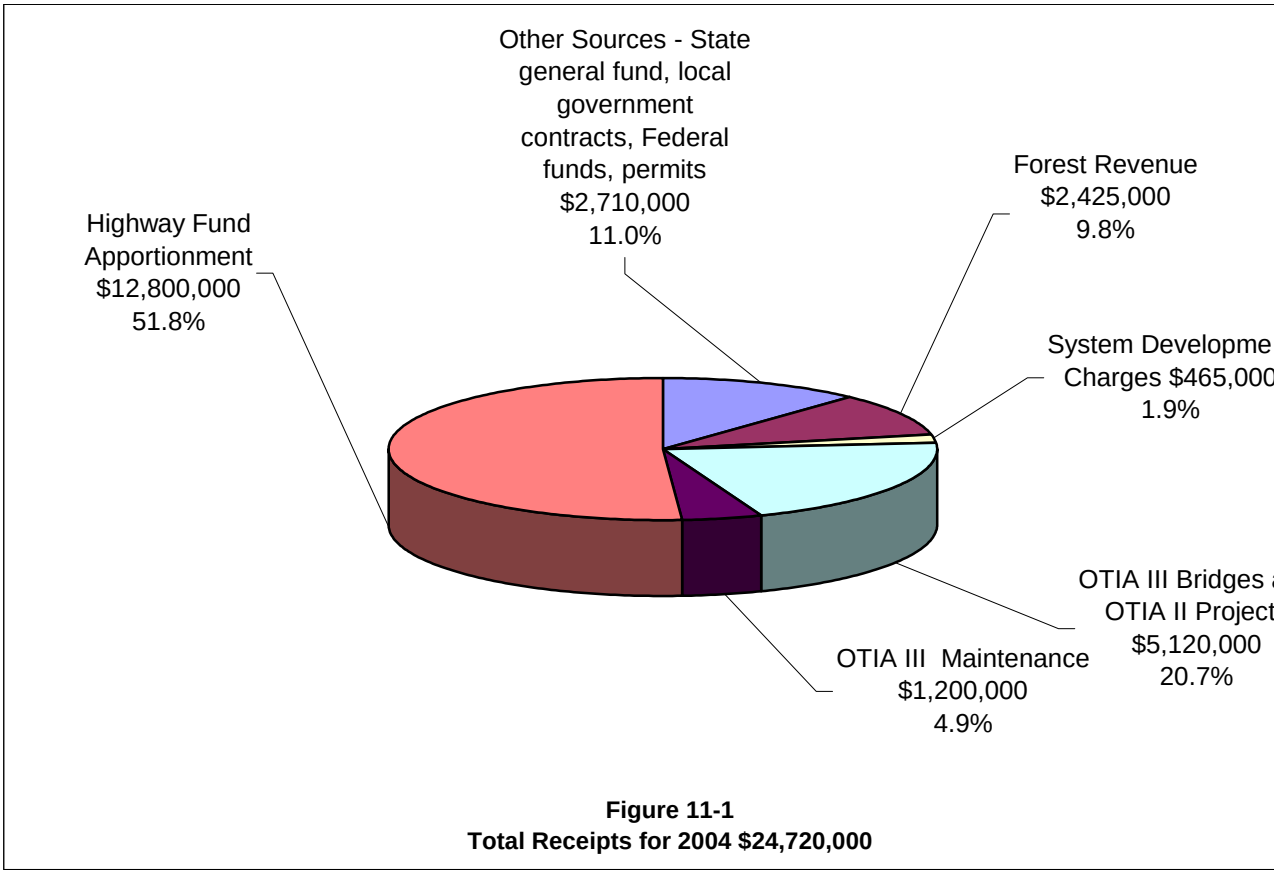


Figure 11-1
Total Receipts for 2004 $24,720,000

11.2 FORECASTING FUTURE REVENUE

In developing this fiscally-constrained plan, we are only considering revenue that is anticipated to be dependable over the timeframe of this plan.

The Oregon Transportation Investment Act III (OTIA III) bridge replacement funding is part of a special funding package passed by the Oregon Legislature. While the state could provide similar funding in the future, we have adopted conservative planning assumptions and will not include this source in our forecast future revenue.

State projections indicate a future increase in Oregon Highway Fund revenue due to an increase in fuel consumption. However, for conservative assumptions in planning purposes, we are assuming a constant level of Oregon Highway Fund Apportionments received.

The OTIA III maintenance dollars are provided by this legislation for the next ten years. For accurate analysis (and considering the conservative assumptions used for other sources), these dollars are included in the future revenue projections.

Therefore, forecast future revenue for County activities is equivalent to current revenue ($24.7 million) less the OTIA III Bridge Replacement funding ($5.1 million). This amounts to an annual average revenue forecast of $19.6 million.

Future grant funding is likely to become available (and Marion County will be receiving a substantial amount in coming years), but it cannot be dependably forecast for planning purposes. The needs and recommended projects identified in this plan would be good candidates for grant funding.

11.3 ALLOCATION OF REVENUE

With a projected average revenue of $19.6 million per year, the County Public Works Department must allocate this money between various activities. **Figure 11-2** provides a breakdown of how the funds are expected to be allocated. On average, administrative and general engineering activities require about 24% of the budget. This amounts to $4.8 million in 2005 dollars, and includes activities like dealing with transportation impacts of land use cases, driveway review and inspection, and overseeing the overall safety of the roadways, along with typical administrative costs. In addition, Public Works must contribute $1.9 million annually in administrative fees to the County General Fund for business, legal, and personnel services. The remaining $12.9 million will go towards operations and maintenance activities; pavement preservation; bridge preservation; emergency projects; annual necessities; and capital projects. The amount set aside for each of these categories is based on needs. The primary need is operations and maintenance. The County must set aside enough funds to maintain its existing transportation facilities to acceptable levels. This requires an average annual expenditure of about $9.2 million per year. After that, the remaining $3.7 million of the budget can be allocated to construction, expansion, and preservation of the infrastructure.

The most cost-intensive activity of the construction, expansion, and preservation program is pavement management and resurfacing. The County has a responsibility to maintain an adequate level of pavement condition on existing facilities before looking at expanding the roadway system. The belief is that an expanded roadway system would be inefficient and counterproductive if the resources are not available to maintain it. It was determined that a minimum of $2.1 million per year is needed to provide the necessary overlay and maintenance treatments to allow the County to preserve our paved road system.

The County will need to construct unanticipated projects during emergencies, such as floods, slides, and severe storms, and the County covers these needs with contingency funds when necessary, so these expenses were not considered as part of this plan.

Per Oregon Revised Statutes, the County is required to spend at least 1% ($128,000) of its Highway Fund Apportionment on facilities for bicyclists and pedestrians. This will typically be spent on bicycle and pedestrian facilities and upgrades provided along with larger capital improvement projects.

Funds must also be budgeted for other annual necessities such as bridge structure preservation, signal repairs, small drainage improvements, and department equipment. It is also prudent to have money available as cost-sharing and matching funds to pursue grants and other sources of funding. Therefore, the funds needed for these activities is $0.4 million per year and will likely be allocated as follows:

Annual Necessities	
Bridge structure preservation	$100,000
Signal equipment/upgrades/repair:	$50,000
Misc. safety/emergency projects:	$40,000
Misc. road drainage projects:	$15,000
Department Equipment:	$25,000
Grants, cost sharing, match programs:	$170,000
	$ 400,000

After funding these various programs, the remaining revenue available for capital projects is $1.2 million per year. However, this must also be split between urban and rural areas. This split is made based on the total vehicle-miles traveled on County Roads in urban and rural areas. 71% of the total vehicle-miles traveled on County Roads occurs in rural areas (outside Urban Growth Boundaries). The remaining 29% occurs in urban areas. Based on this 71/29 split, the amount available for the implementation of the Rural Transportation System Plan and its recommended improvements is $850,000 per year, or $17 million (in 2005 dollars) over 20 years. **Figure 11-2** shows the anticipated annual allocation of the annual revenue forecast of $19.6 million:

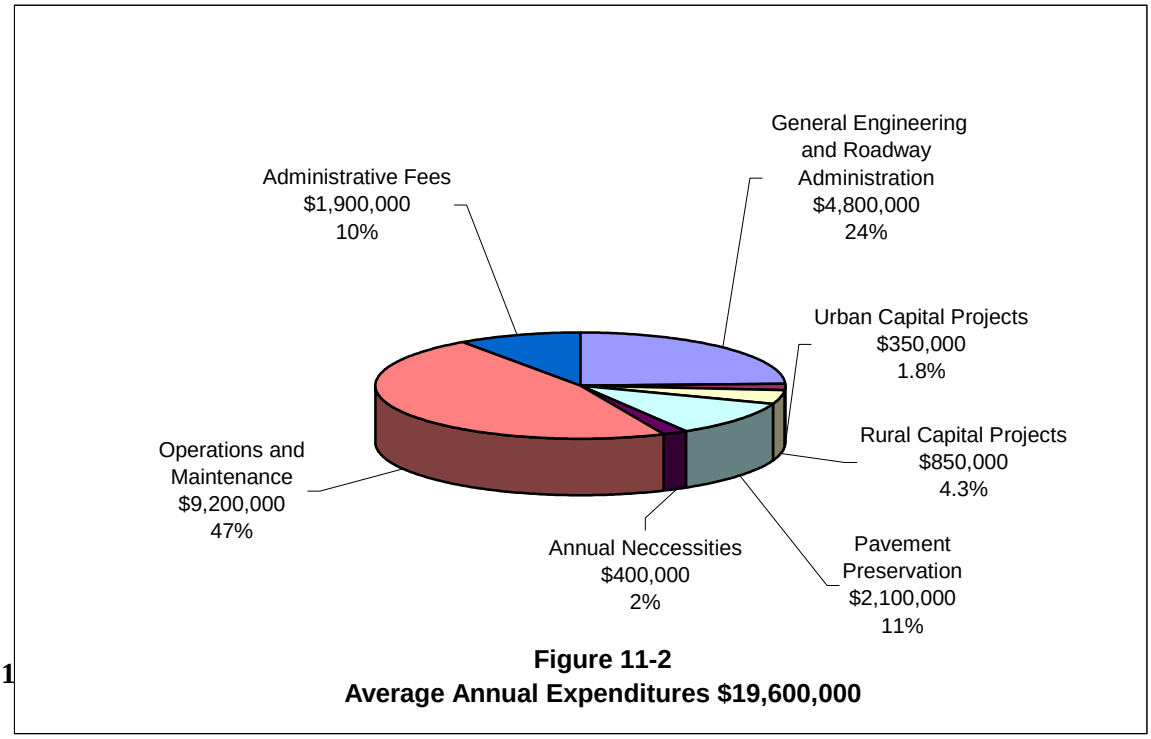


Figure 11-2
Average Annual Expenditures $19,600,000

With only $17 million available for rural projects over the next 20 years, the financially constrained 20-year plan represents only a portion of the recommended 20-year improvements (which are estimated to cost over $104 million including bridge projects). Some projects will be completed through grant funding, and some will be completed in cooperation with other agencies or private developers, so there are many cases where the County's share of the project cost is significantly less than the full project cost. However, even with these other sources of funding, the cost to construct the recommended improvements significantly exceeds the money anticipated to be available for their construction. **Table 11-1** represents the fiscally constrained plan of improvements, in 2004 dollars, approved under this updated RTSP over the next 20-years. Although the County can pursue implementation of these projects, we still are required to obtain all necessary permits and goal exceptions for improvements.

Table 11-1
20-Year Financially Constrained Plan

TYPE	LOCATION	DESCRIPTION	ESTIMATE
ZERO TO FIVE YEAR TIME FRAME			
PROJECTS			
Capacity	Arndt Rd / Airport Rd	Construct traffic signal and left turn lanes at intersection	$200,000 Matching funds for OTIA Grant
Capacity	Arndt Rd from Wilsonville-Hubbard Hwy to Airport Rd	Add a second eastbound through lane and paved shoulders	$150,000 Matching funds for OTIA Grant
Safety	Cordon Rd / Pennsylvania Ave	Construct left turn lane on Cordon Rd	$50,000 (Submitted for $420,000 HEP funding)
Safety	Cordon Rd / Auburn Rd	Install traffic signal at intersection	$100,000 (Submitted for $450,000 STP funding)
Safety	Cordon Rd / Herrin Rd	Construct left turn lane on Cordon Rd	$500,000
Safety	Ehlen Rd / Boones Ferry Rd / Hwy 551	Construct left turn lane on Ehlen Rd	$500,000
Capacity	Cordon Rd / MacLeay Rd	Construct traffic signal and left turn lanes at intersection	City of Salem Project
Modernization and bike/ped	Marion Rd from Turner UGB to Mill Creek Rd	Strengthen pavement and construct paved shoulders (bikeways) on both sides	Developer Requirement
Bridge and bike/ped	Jefferson-Marion Rd over Union Pacific Railroad	Replace bridge and realign road	OTIA Grant (no match)
Bridge and bike/ped	Mt. Angel – Gervais Road over Pudding River	Replace bridge	OTIA Grant (no match)
Bridge	River Rd S (Independence Bridge) over Willamette River	Scour protection	$200,000 Matching funds for HBRR Grant

TYPE	LOCATION	DESCRIPTION	ESTIMATE
Bridge	South Abiqua Road over Abiqua Creek	Replace bridge	$200,000 Matching funds for HBRR Grant
Bridge and bike/ped	Marion Rd over Mill Creek (south of Mill Creek Rd)	Replace Bridge	Developer Requirement
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$400,000 likely HBRR matching funds
Capacity	Silverton Rd / Howell Prairie Rd	Construct traffic signal and left turn lanes at intersection	$750,000
Safety	Cordon Rd / Hayesville Drive	Construct left turn lane on Cordon Rd	$300,000
Safety	Brooklake Rd / Wheatland Rd	ITS Safety – Speeding (non-stopping) Vehicle Warning	$100,000
Contingency and Miscellaneous			$800,000
COST TOTAL OF ZERO TO FIVE YEAR TIMEFRAME PROJECTS			**$4,250,000**
TRANSPORTATION PLANNING ACTIVITIES IN ZERO TO FIVE YEAR TIMEFRAME			
Sub-Area Plan	Brooks Community	Brooks Community Transportation Plan	In-House
Corridor Study	Cordon Rd from City of Salem to Hazelgreen Rd	Corridor Study to develop detailed plan (signal locations, turn lanes, future capacity, access management, etc) for Cordon Rd	In-House, Cooperating with Salem
FIVE TO TEN YEAR TIME FRAME			
PROJECTS			
Safety	Ehlen Rd / Bents Rd	Realign Bents Rd to the west; install signal; could become part of an interchange reconstruction project	$1,100,000
Safety / Railroad	Butteville Rd / Portland & Western Railroad	Safety improvements: Install gates at crossing and possible realignment	$200,000
Capacity / Modernization	River Rd NE / Brooklake Rd	Construct traffic signal and left turn lanes at intersection; some relocation of roads may be necessary	$900,000
Capacity / Modernization	Cordon Rd / Hazelgreen Rd / 55th Ave	Construct traffic signal and left turn lanes at intersection	$900,000
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$400,000 likely HBRR matching funds
Contingency and Miscellaneous			$750,000
COST TOTAL OF FIVE TO TEN YEAR TIMEFRAME PROJECTS			**$4,250,000**

TYPE	LOCATION	DESCRIPTION	ESTIMATE
TRANSPORTATION PLANNING ACTIVITIES IN FIVE TO TEN YEAR TIMEFRAME			
Corridor Study	Brooklake Road from River Rd NE to Oregon 99E	Corridor Study to develop detailed plan (signal locations, turn lanes, future capacity, access management, etc) for Brooklake Rd	In-House
Sub-Area Plan	Butteville Community	Butteville Community Transportation Plan	In-House
Special Study	Woodburn area second interchange study	Evaluate the level of need for, potential benefit of, potential cost of, and resulting impacts of a second interchange in the Woodburn Area	In Cooperation with ODOT, Woodburn, and other cities
TEN TO FIFTEEN YEAR TIME FRAME			
PROJECTS			
Safety / Capacity	Cordon Road from State through Center Streets	Widen to two lanes each direction; includes intersection improvements	$3,000,000 (County share or first part of project funding)
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$650,000 likely HBRR matching funds
Contingency and Miscellaneous			$600,000
COST TOTAL OF TEN TO FIFTEEN YEAR TIMEFRAME PROJECTS			**$4,250,000**
TRANSPORTATION PLANNING ACTIVITIES IN TEN TO FIFTEEN YEAR TIMEFRAME			
Sub-Area Plan	Marion Community	Marion Community Transportation Plan	In-House
Sub-Area Plan	Mehama Community	Mehama Community Transportation Plan	In-House, with ODOT
Corridor Study	Riverside/Sidney/Ankeny Hill Roads from I-5 to Independence	Study potential for corridor improvements	In-House, with Polk County, ODOT, and Cities
FIFTEEN TO TWENTY YEAR TIME FRAME			
PROJECTS			

TYPE	LOCATION	DESCRIPTION	ESTIMATE
Safety / Capacity	Cordon Road from State through Center Streets	Widen to two lanes each direction; includes intersection improvements	$1,600,000 (Remainder of project funding; may come from other sources)
Capacity / Safety	Cordon Rd / Swegle Rd	Install traffic signal at intersection	$400,000
Safety / Modernization	River Rd S / Orville Rd / BN Railroad Bridge	Realign roadway to cross railroad at grade (no bridge); reconfigure Orville Rd intersection	$1,400,000 (County share or first part of project funding)
Bridge	Bridges with low sufficiency ratings	Replace bridges with low sufficiency ratings; specific bridges to be identified by future testing	$450,000 likely HBRR matching funds
Contingency and Miscellaneous			$400,000
COST TOTAL OF FIFTEEN TO TWENTY YEAR TIMEFRAME PROJECTS			**$4,250,000**
TRANSPORTATION PLANNING ACTIVITIES IN FIFTEEN TO TWENTY YEAR TIMEFRAME			
Alternatives Analysis	Salem to Silverton	With capacity problems expected on Silverton Road, analysis of alternatives to increase capacity between Salem and Silverton	In-House
Sub-Area Plan	Monitor Community	Community Transportation Plan	In-House
Sub-Area Plan	Delaney Interchange Area	Delaney Interchange Area Transportation and Access Plan	In-House with ODOT
Major Regional Study	Possible Bridge over Willamette River between Keizer and Newberg	Study the possibility, potential benefit, and costs and impacts of a possible new bridge over the Willamette River between Keizer and Newberg	Staff, along with other counties, cities, and ODOT
TWENTY YEAR CAPITAL IMPROVEMENT PROGRAM TOTAL			**$17,000,000**

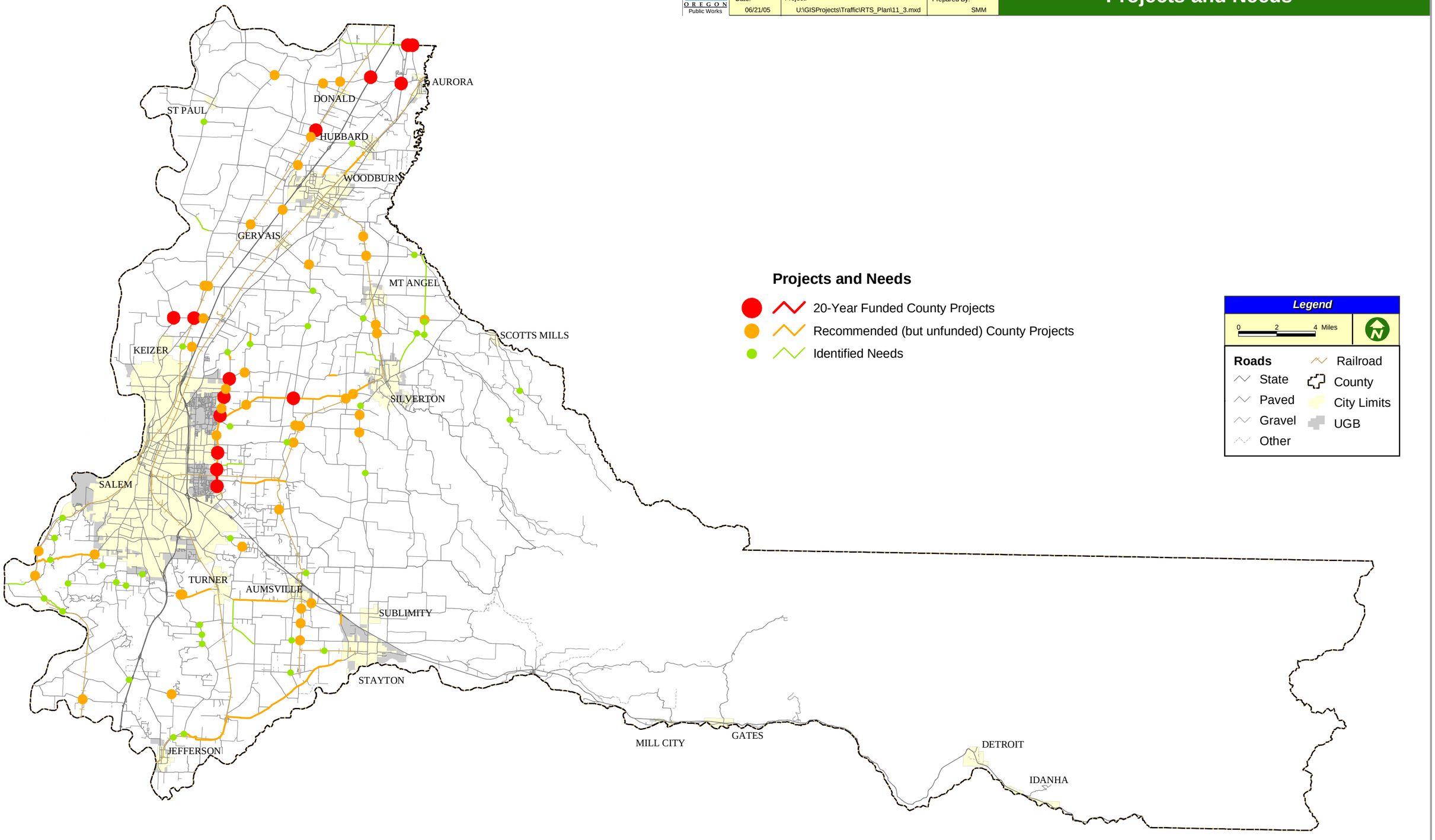
Each of the 5-year periods contains money set aside for contingencies. This is intended to provide approximately $100,000 each year for unexpected costs that sometimes occur during the design or construction of a project. This money would also be available for emergency projects, miscellaneous small projects or other improvement opportunities that arise. If these costs do not occur, the surplus can be used to finance additional unfunded projects. Should the County experience unforeseen circumstances, priorities under this plan can be adjusted if it becomes necessary for the County to accelerate or delay the time frame of individual projects. If this occurs, the County may revise the RTSP to reflect the changes. **Figure 11-3** shows the location and anticipated funding status of County Road projects. **Figure 11-4** shows the type (turn lane, signal, safety, widening, etc.) of each recommended project, and also includes recommended projects on State Highways.

Rural Transportation System Plan 2005 Update

Marion County OREGON Public Works

Date:	Project:	Prepared By:
06/21/05	U:\GISProjects\Traffic\RTS_Plan\11_3.mxd	SMM

Figure 11-3
Projects and Needs



Projects and Needs

- 20-Year Funded County Projects
- Recommended (but unfunded) County Projects
- Identified Needs

Legend

0 2 4 Miles

Roads

- State
- Paved
- Gravel
- Other
- Railroad
- County
- City Limits
- UGB

Rural Transportation System Plan 2005 Update

Marion County OREGON Public Works

Date:	Project:	Prepared By:
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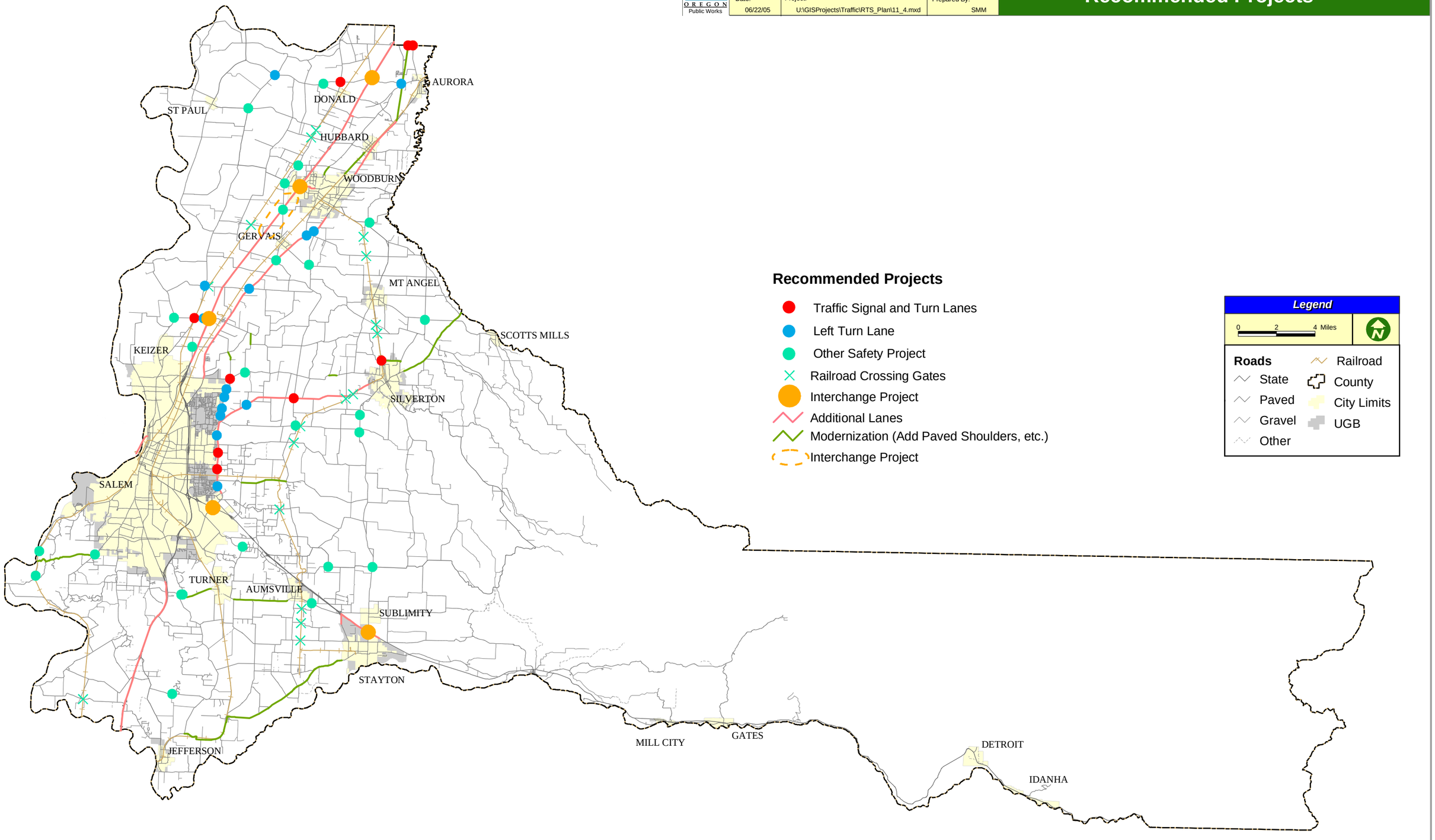
Figure 11-4
Recommended Projects



Recommended Projects

- Traffic Signal and Turn Lanes
- Left Turn Lane
- Other Safety Project
- Railroad Crossing Gates
- Interchange Project
- Additional Lanes
- Modernization (Add Paved Shoulders, etc.)
- Interchange Project

Legend

0 2 4 Miles

N

Roads

- State
- Paved
- Gravel
- Other
- Railroad
- County
- City Limits
- UGB

There are five main categories of projects in the financially constrained plan: 1) safety projects (which include bicycle/pedestrian safety improvements); 2) preservation and modernization projects (including projects to add shoulder bikeways); 3) capacity projects; 4) bridge replacement and rehabilitation projects; 5) planning; and 6) contingencies. **Figure 11-5** provides a cost breakdown for each type of project in the financially constrained plan. As the figure shows, $6.2 million (37%) will be for safety projects, $2.55 million (15%) for modernization projects, $3.4 million (20%) for capacity projects, $3.1 million (18%) plus grant funding for bridge projects, and $1.75 million (10%) in contingencies. This breakdown is consistent with the earlier finding that most of the needs in the rural County are safety, preservation, and
modernization-related rather than capacity related.

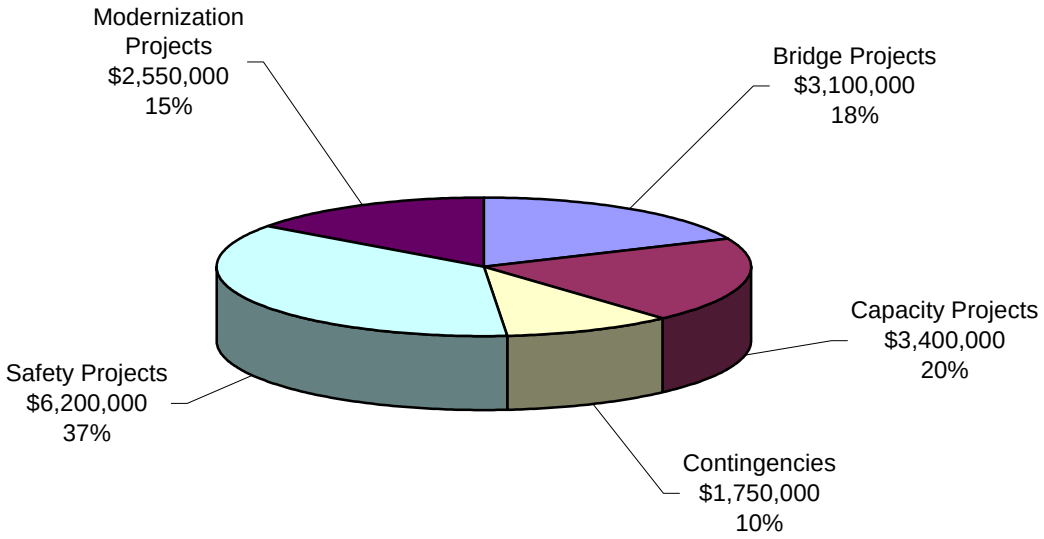


Figure 11-5
Planning Expenditures By Project Type $17,000,000

11.5 UNFUNDED 20-YEAR IMPROVEMENTS

The remaining recommended improvements that do not appear in Table 11-1 are still desirable to undertake within this 20-year plan and are also approved under the RTSP. However, due to the projected revenue shortfall, funding for these projects have not been determined. The County will continue to look for additional sources of funding to facilitate their completion. **Table 11-2** lists the unfunded 20-year recommended improvements and potential funding sources that could be available to accomplish these projects. It is estimated that the County will need approximately $72 million in additional funding to complete the recommended 20-year rural improvements (listed as recommended projects in Chapter 8), plus $15 million additional for bridge projects, which are considered separately.

Table 11-2
Unfunded 20-Year Recommended Improvements

TYPE	LOCATION	DESCRIPTION	ESTIMATE
UNFUNDED 20-YEAR RECOMMENDED IMPROVEMENTS			
Safety / Modernization	River Rd S / Orville Rd / BN Railroad Bridge	Realign roadway to cross railroad at grade (no bridge); reconfigure Orville Rd intersection	$1,400,000 (Remainder of funding; may come from other sources
Capacity / Safety	Cordon Rd from Caplinger Rd (Salem UGB) to State St	Widen to two lanes each direction; includes intersection improvements	$3,400,000
Safety / Railroad	St. Louis Rd at BNRR Crossing	Install gates at crossing	$100,000
Safety	Butteville Rd / Crosby Rd	Line up Crosby Road approaches (they are currently slightly offset)	$150,000
Safety	Cordon Rd / Ward Dr	Construct left turn lane on Cordon Rd	$400,000
Safety	Cordon Rd / Carolina Ave / Indiana Ave	Construct left turn lane on Cordon Rd	$500,000
Modernization, Safety, and bike/ped	Delaney Road from Battle Creek to Mill Creek (near Turner)	Widen Delaney road to 32' (travel lanes and paved shoulders), reconfigure intersection with Battle Creek Rd, and replace Battle Creek bridge.	$2,800,000
Safety	Silverton Road at 64th Place	Left turn lane on Silverton; straighten skew	$600,000
Capacity	Cordon Rd from Center St through Sunnyview Rd	Widen to four lanes with raised median and turn lanes at key intersections	$4,600,000
Modernization & Bike/Ped	Boones Ferry Rd from Woodburn UGB to Crosby Rd	Widen pavement to 32 feet	$400,000
Safety	River Rd S (MP 3.36) / BN Railroad Bridge	Realign roadway to cross railroad at grade (no bridge)	$2,000,000
Safety, Modernization & Bike/Ped	54th Ave across Lake Labish	Widen roadway and include shoulders	$500,000
Capacity	Cordon Rd from Sunnyview Rd through Silverton Rd	Widen to four lanes with raised median and turn lanes at key intersections	$4,600,000
Safety / Modernization	Waconda Rd at Portland & Western Railroad	Install gates at crossing	$100,000
Safety / Modernization	Broadacres Rd at Portland & Western Railroad	Install gates at crossing	$100,000
Safety	Cordon Rd / Kale St	Construct left turn lane on Cordon Rd	$300,000
Capacity	Silverton Rd from Cordon Rd (Salem UGB) to Indigo St	Widen to two lanes each direction plus left turn lanes where appropriate	$4,800,000
Safety	Bates Rd / Willamette Valley Railway	Install gates at crossing	$100,000

TYPE	LOCATION	DESCRIPTION	ESTIMATE
Safety	Porter Rd / Willamette Valley Railway	Install gates at crossing	$100,000
Safety	Vitae Springs Rd at Skyline Rd	Reconfigure intersection	$750,000
Capacity / Modernization	Golf Club Rd from Oregon 22 to Stayton UGB	Widen to two lanes each direction plus left turn lanes where appropriate	$1,500,000
Safety	Brush Creek Rd / Willamette Valley Railway	Install gates at crossing	$100,000
Safety / Railroad	Sunnyview Rd / Willamette Valley Railway	Install gates at crossing; Remove stop signs	$100,000
Modernization / Capacity / Safety	McKay Rd at French Prairie Rd	Construct left turn lanes and eastbound right turn lane on McKay Rd; possible signal	$500,000
Capacity / Modernization	Brooklake Rd / Huff Ave	Construct left turn lane on Brooklake Road and possibly a traffic signal at intersection	$750,000
Modernization and bike/ped	Jefferson-Marion Rd from Parrish Gap Rd to Stayton Rd	Widen travel lanes and install paved shoulders	$1,500,000
Capacity	Silverton Rd from Indigo St to Howell Prairie Rd	Widen to two lanes each direction plus left turn lanes where appropriate	$4,700,000
Safety	McKee School Rd / Willamette Valley Railway	Install gates at crossing	$100,000
Safety / Railroad	MacLeay Rd / Willamette Valley Railway	Install gates at crossing; Remove stop signs	$100,000
Safety / Railroad	Shaff Rd / Willamette Valley Railway	Install gates at crossing; Remove stop signs	$100,000
Safety	Howell Prairie Rd / Lardon Rd / Kaufman Rd	Line up Lardon Road and Kaufman Road to make one four-way intersection	$350,000
Capacity	Ehlen Rd / Butteville Rd	Install traffic signal at intersection and northbound right turn lane	$750,000
Drainage / Modernization / Bridge	Hazelgreen Rd across Pudding River flood plain	Raise roadway and bridge to above flood level; possibly improve bridge and curves	$1,500,000
Capacity / Modernization	Brooklake Rd from River Rd NE through I-5 Interchange	Widen to two lanes each direction plus center turn lane (see note 1)	$3,000,000
Safety	Downs Rd / Willamette Valley Railway	Install gates at crossing	$100,000
Safety / Modernization	Mill Creek Rd / Bishop Rd / Leverman Rd	Reconfigure some approaches	$400,000
Safety	Yergen Rd at Donald Rd	Convert to a single T-Intersection at a right angle	$500,000
Safety	Wintercreek Rd / Skelton Rd	Cut/fill and raise intersection	$400,000
Safety	Cascade Hwy / Evergreen Rd / Evergreen School	Flatten vertical curve	$500,000
Modernization and bike/ped	Stayton Rd from Jefferson-Marion Rd to Stayton UGB	Widen travel lanes and install paved shoulders	$2,000,000
Modernization and bike/ped	Vitae Springs Rd from Orville Rd to Skyline Rd	Widen travel lanes and shoulders	$2,500,000
Capacity / Safety / Modernization	Silverton Rd from Howell Prairie Rd to Brush Creek Rd	Widen to two lanes each direction plus turn lanes where appropriate	$5,100,000

TYPE	LOCATION	DESCRIPTION	ESTIMATE
Modernization / Safety	Hazelgreen Rd / 62nd Ave	Convert to a T-intersection at a right angle	$100,000
Safety / Railroad	Kaufman Rd / Willamette Valley Railway	Install gates at crossing; Remove stop signs	$100,000
Safety / Railroad	Monitor-McKee Rd / Willamette Valley Railway	Install gates at crossing; Remove stop signs	$100,000
Safety	Delaney Rd / Parrish Gap Rd	Raise Parrish Gap approach	$400,000
Safety	Sublimity Rd at Chemeketa C.C and Festival Grounds	Construct left turn lane	$450,000
Safety / Bike/Ped / Modernization	65th Ave across Lake Labish	Widen roadway and include shoulders	$800,000
Modernization and bike/ped	Mill Creek Rd from Marion Rd to Aumsville UGB	Widen travel lanes and shoulders; consider widening bridges	$2,000,000
Modernization and bike/ped	Vitae Springs Rd from River Rd S to Orville Rd	Widen travel lanes and shoulders; possibly improve grades	$3,000,000
Capacity / Safety / Modernization	Silverton Rd from Brush Creek Rd to Silverton UGB	Widen to two lanes each direction plus turn lanes where appropriate	$4,100,000
Safety	35th Ave / Perkins St	Reconfigure to a single cross intersection	$300,000
Modernization / Safety	Howell Prairie Rd at Mt. Angel-Gervais Rd	Reconfigure intersection to a single cross intersection	$500,000
Modernization & Bike/Ped	State Street from 63rd Ave to Howell Prairie Rd	Widen roadway to include paved shoulders	$800,000
Safety	Paradise Alley / Willamette Valley Railway	Install gates at crossing	$100,000
Safety	Talbot Rd / BNSF Railway	Install gates at crossing	$100,000
Safety	Hook Rd / Willamette Valley Railway	Install gates at crossing	$100,000
Safety / Modernization	Meridian Rd / Mt. Angel – Scotts Mills Rd / East College Rd	Reconfigure intersection to two T-intersections or one cross intersection; possibly install left turn lanes	$150,000
Safety	70th Ave at Mill Creek Rd	Move 70th west to improve turning radii and bridge rail clearance	$150,000
Safety	Aumsville Hwy at Witzel Rd	Vertical realignment; sight distance improvement	$400,000
Safety	Cascade Hwy / Kaufman Rd	Improve intersection configuration	$400,000
Safety	River Rd NE / Waconda Rd	Construct left turn lanes on River Rd NE	$500,000
Modernization & Bike/Ped	Woodburn-Hubbard Rd from Woodburn to Hubbard	Widen roadway to include paved shoulders	$600,000
Safety	Butteville Rd / Parr Rd	Safety Improvement – reduce grades, improve visibility	$800,000
COST TOTAL OF 20-YEAR UNFUNDED RECOMMENDED IMPROVEMENTS			**$72,300,000**

Note 1: This project is not authorized until its need is identified in a Sub-Area plan for the Brooks-Hopmere community

11.6 REMAINING UNFUNDED NEEDS

In addition to the unfunded 20-year improvements in Table 11-2, another 50 projects have been identified as needed projects that would be beneficial to the public and are estimated to cost $25 million. These projects are listed as needs but not as recommended projects in Chapter 8. These projects are not specifically authorized by this RTSP, and may need additional land use approvals before they could be constructed, although some projects (such as converting Y-intersections to T-intersections) are small enough that they would not need additional approvals, and could be constructed as resources allow. An additional estimated $10 million would be necessary for bridge projects in this category.

The large number and high cost (over $122 million) of the recommended and needed but unfunded projects indicates that the County is facing a large shortfall in the revenue necessary to adequately fund our transportation system. **Figure 11-6** provides an illustration of this shortfall for transportation improvements.

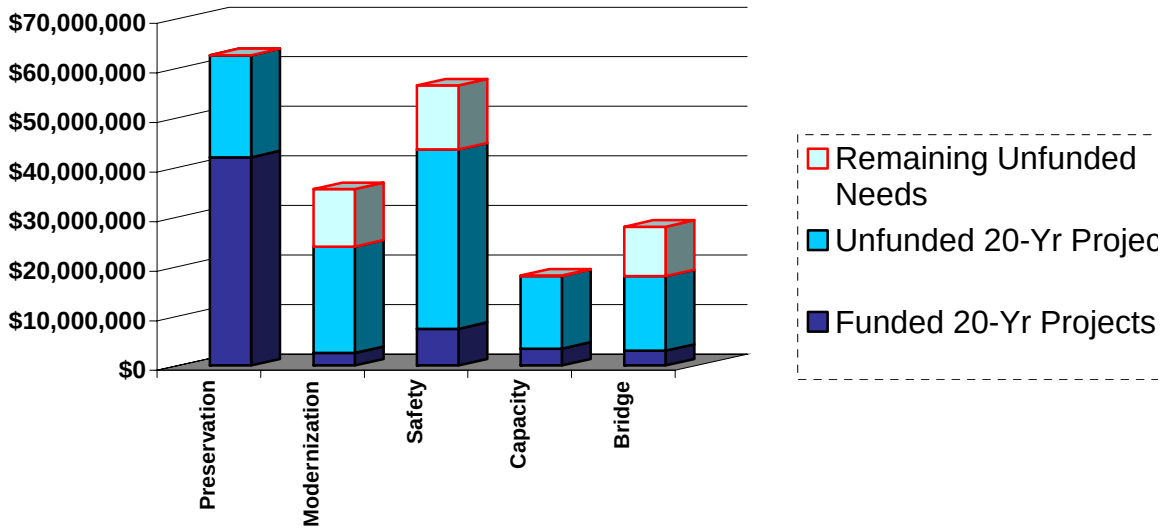


Figure 11-6
Transportation Funding Needs (in current dollars)

11.7 NON – ROAD PROJECTS

Traditionally, the vast majority of Marion County's transportation projects have been on roads, which is appropriate considering the fact that most of the transportation funding received by the County (such as the gas tax) is required to be used for road-related projects. However, non-road projects are increasing in importance and potential benefit. Chapter 9 of this plan includes recommendations for many different types of projects that do not involve roads. Some of these projects, like intercity transit, multi-use trails, and commuter rail, have the potential to be very beneficial to the County. There is a considerable amount of grant funding available for projects such as these, but most of them require local matching funds. In addition, the County may identify beneficial projects that it would like to construct with County funds.

Over the next twenty years, the County will need to develop better ways of funding transportation projects (like transit, rail, and trails), that are not currently eligible for funding with fuel taxes. This funding will be necessary to make these projects happen, whether through matching funds for grants or through funding he projects directly.

11.8 POTENTIAL FUNDING OPTIONS

In order to complete the recommended 20-year plan, new funding sources or increased levels of funding from existing sources would be needed. A discussion of some of the potential funding sources is provided below in this section.

11.8.1 Federal Surface Transportation Funding

In August 2005, Congress passed and the President signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFTEA-LU) which provided $244 billion for highway, highway safety, transit and other surface transportation programs over the 6 years from 2005 through 2011. SAFETEA-LU expanded on the initiatives established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the 1998 Transportation Equity Act for the 21st Century (TEA-21). In the past, federal funds contributed about 30% of road-related revenue statewide. Federal transportation revenues come from a variety of taxes on gasoline, diesel, other fuels, tires, truck sales, and interstate truck weight. These funds were allocated to programs established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21). Marion County received most of the ISTEA and TEA-21 funds through the Surface Transportation Program, the Bridge Replacement and Rehabilitation program, with funding also coming through the Transportation Enhancement program and the Hazard Elimination Program. Marion County will continue to actively and persistently pursue funding through these and other grant programs.

11.8.2 State Gas Tax

The largest source of the County's revenue comes from the Oregon Highway Fund Apportionment, the largest portion of which consists of state gas tax dollars. In projecting future funding for County transportation improvements, it was assumed there would be no increase in the gas tax over the next 20 years. However, any increase to the state gas tax would result in a significant increase to the County fund. It is estimated that a one-cent per gallon increase to the gas tax would bring close to an additional $300,000 per year to the County fund.

As the gas tax is a fixed amount per gallon of gas, it is not indexed to inflation. Therefore, due to inflation, the real value of total gas tax revenue is decreasing, as each dollar collected buys less and less. The tax on one gallon of gas buys considerably less today than it did when the gas tax value was set many years ago.

Changes in the average fuel-efficiency of vehicles also affects gas tax revenue. The driver of a compact car that gets 45 miles per gallon only pays a third of the gas tax paid by the driver of a sport-utility vehicle that gets 15 miles per gallon. As gas prices increase and as people become

more aware of the world's limited supply of fossil fuels, a trend is anticipated towards more fuel-efficient vehicles, including hybrid vehicles. This trend toward more fuel-efficient vehicles would be a wise use of natural resources, but would result in lower gas-tax revenue paid by the drivers of these vehicles. Thus, this trend toward more fuel-efficient vehicles would result in less revenue per vehicle-mile traveled. The result would be that, even though these vehicles would place essentially the same demands on the transportation system, they would be paying much less to maintain that system. This could result in future revenue shortages.

11.8.3 State Motor Carrier Transportation Fees

Another large source of the Oregon Highway Fund Apportionment is road usage fees, commonly called the 'weight-mile tax' paid by trucks and other users. This fee is based on the amount of mileage each vehicle travels and the amount of weight the vehicle was carrying for that mile. In projecting future funding for County transportation improvements, it was assumed there would be no increase in these transportation fees over the next 20 years. However, any increase to these fees would result in a significant increase to the County fund. A 1% increase in these fees would bring approximately an additional $40,000 per year to the County fund.

11.8.4 State Vehicle Registration Fees

Another key source of state transportation revenue is state vehicle registration fees, which are charged when a vehicle is registered or that registration is renewed. In 2001, the Oregon legislature passed the Oregon Transportation Investment Act, and one provision of that Act was an increase in vehicle registration fees for Oregon drivers. This increase has been effective in providing needed revenue for state, county, and city transportation agencies to help them maintain their road systems and meet the ever-increasing demand for vehicular travel.

11.8.5 Local Gas Tax, Vehicle Registration Fees, and Aggregate Tax

One possible means of generating revenue for Marion County's transportation system would be the implementation of a local gas tax, registration fee, or some other means of collecting local funding. In 1997, Marion County proposed several measures to County voters to fund transportation improvements and repairs. These included local gas taxes, diesel taxes, registration fees, and aggregate extraction taxes. Each of these measures was soundly defeated by voters.

At this time, Marion County has no plans to pursue any of these local revenue generation measures such as fuel taxes, registration fees, or resource extraction fees. If the funding situation becomes significantly worse in the near future or other sources are not developed, measures such as these may be reconsidered.

11.8.6 System Development Charges

Marion County has adopted Systems Development Charges (SDCs) to fund transportation projects in rural Marion County and in the areas of unincorporated Marion County that lie within the urban growth boundaries of four cities: Woodburn, Silverton, Salem, and Stayton. SDCs are fees paid by developers to cover the costs of capacity impacts as a result of the development. The fees are determined by the costs associated with impacts on adjacent areas and services, such as

increased trip generation from associated land use. The amount of the County SDC inside the Woodburn and Silverton urban growth boundaries is the same as the fee implemented by those cities. The SDC within the Salem urban growth boundary is based on the recommendations contained in the report, *Transportation Systems Development Charge Study (1994)*. Revenue generated by the SDC will fluctuate with the level of new development and the trip rate identified in the SDC ordinance. In addition to SDCs, the County will continue to require developers to provide improvements in subdivisions as a condition for their development.

The System Development Charges are approximately $465,000 per year. These funds are used for growth and capacity-related improvements in the rural County area. Increases in System Development Charges could provide additional funding for growth and capacity-related improvements.

11.8.7 Local Improvement Districts

In many instances, transportation improvements have a very direct benefit to nearby property owners, such as improving motor vehicle or bicycle/pedestrian access to adjacent properties. In these cases, nearby property owners could accelerate a project by forming a Local Improvement District (LID) and contributing a portion of the funding for the project. The LID could assess additional fees on properties in the district to fund specific improvements, and thus the local property owners would over a period of years pay back the County for the improvements made.

While these LIDs were used in the past to fund many projects (such as paving gravel roads), they are no longer considered viable for the County as the LIDs necessitate the County providing the up-front funding for a project, and then having substantial administrative costs and uncertainty in collecting the money from the property owners. In the County's efforts to be a good steward of the taxpayer revenue it receives, these LIDs are no longer being used. However, it is possible for local property owners to pool resources to accomplish projects; see the next section.

11.8.8 Local Improvement Cooperation

Projects on the transportation system can be accomplished by private funding, provided that the proposed project is acceptable to Marion County. If so, the residents, property owners, and/or users of a particular area can provide the funding necessary to constructed the project. If there is interest the county encourages individuals to work together to pool resources to come up with the funding for these projects.

The main difference between this cooperation approach and a Local Improvement District (LID) is in who provides the up-front funding for the project.

11.8.9 Street Utility Fee

An alternative source of local funding is a Street Utility Fee assessed to households and businesses based on the average amount of street use generated by each type of land use. One example where a Street Utility Fee is in place is Medford, Oregon where single-family residences currently pay $2 per month. The Street Utility Fee in Medford generates $1.3 million per year.

Since the Street Utility Fee can be constructed as a fee rather than a tax, it would not be subject to the limits of Measure 5 and Measure 50, and would not require voter approval. Although not legally required, voter approval of a Street Utility Fee would probably be necessary for political acceptance because voters will probably perceive the fee as a tax.

11.8.10 Property Tax Levy

A property tax levy is also an option to raise the revenue needed to complete the unfunded portion of the plan. The recommended but unfunded portion of the rural plan is estimated to be over $87 million over 20 years, or about $4.3 million per year (in current dollars). Based on the total assessed property value of $13.9 billion in Marion County as reported by the Oregon Department of Revenue, a yearly tax rate of $0.072 (in current dollars) per $1000 of assessed value would be needed to generate $1 million per year. The County does not intend to implement a property tax levy at this time.

11.8.11 Local Access Fees

Another option to increase revenue for Marion County's transportation system would be the implementation of a Local Access Fee. This would be a fee charged to each property owner and/or vehicle user for the privilege of using Marion County roads. The fee could be based on property, number or usage of driveway accesses, trip generation of a property, vehicles registered, or vehicle-miles traveled. The specifics of how to calculate the amount of such a fee, or how the fee would be collected, would be determined if the County decides to work towards implementing such a fee.

11.8.12 Ballot Measures / Bond Issues

Several other local jurisdictions (such as the City of Salem) have funded transportation projects through issuance of bonds authorized by voters through ballot measures. A 'package' or list of transportation projects is developed, the cost of those projects identified, and the package is put before the voters in an election to determine whether or not they are willing to pay for that package of improvements. This is another option that the County could pursue in order to raise additional revenue for necessary transportation projects.

11.8.13 Tolls or other Specific User Fees

In this option, drivers would pay a specific fee, or toll, in order to make a specific trip on a specific roadway. This option is widely used in the eastern United States, and provides a significant amount of revenue for the transportation systems of those areas. One difficulty of tolls is the considerable administrative cost involved in their implementation and, for most methods of collection, considerable vehicle delay in paying the tolls. Marion County has no plans to pursue tolls at this time. However, this could become an option if additional revenue becomes necessary.

11.8.14 Earmarks

One option that is gaining prevalence is 'earmarking' funds in federal legislation to go for specific projects. For this option, Congress would need to insert an 'earmark' for a specific amount of funds for a specific project into a legislative bill that is actively being considered. If the bill passes, that funding becomes available. This approach could be particularly useful for large projects.

11.8.15 Grants and other Funding Programs

There are several types of public and private funding programs for which Marion County transportation projects may be eligible. The County will continue to actively pursue grant funding for projects that would be beneficial, as long as the administrative costs associated with the program do not outweigh the benefit of the potential for receiving funding, and as long as the project can still be appropriately constructed within the parameters of the funding program. Grants are anticipated to be a particularly good source of funding to pursue, and the County intends to continue to do so.

Many grants and funding programs require a local match, often in dollars as opposed to in-kind. The County will maintain some funds as a potential match for this type of funding.

11.8.16 Transit Funding Programs

The ability to obtain funding is a critical part of implementing the transit improvements proposed in the 20-year plan. A list of potential funding programs for transit services are provided below.

Section 5310 Funds
Section 5310 funds are Federal funds to purchase vehicles and equipment for transportation for the elderly and/or disabled. Improvements to paratransit service would be eligible for these funds.

Section 5311 Funds
Section 5311 funds are Federal funds to purchase and operate vehicles for public transportation in small cities and rural areas under 50,000. Transit programs that can be supported by these funds include: intercity transit service, bus and taxi systems, vans, and dial-a-ride programs. Section 5311 funds offer the greatest potential for funding the proposed intercity transit recommended in Chapter 9.

Special Transportation Fund (STF)
The Special Transportation Fund is generated through the State cigarette tax and can be used to provide transportation services for the elderly and/or disabled. Although a shuttle service strictly designed for commuters would not be eligible for this fund, a shared shuttle service between commuters and the elderly and/or disabled might qualify. The County is supporting the development of a commuter shuttle service that would also provide para-transit service during off-peak hours with the Salem Transit District and the North Santiam River Basin Transit Services.

Title XIX

Title XIX provides Federal funds for the medical transportation of the elderly, disabled, and disadvantaged. Some paratransit services would be eligible for these funds.

Transportation Safety and Service Fee (TSSF)

In 1997, the Governor and the Oregon House Transportation Committee looked at options for expanding the base of transportation funding in the State. One of the options discussed was a Transportation Safety and Service Fee, or "access fee," where every household and business in Oregon would pay a $2.00 per month fee for the benefits of having transportation facilities available. The belief is that everybody in the state benefits from the transportation system, whether they use the system for transportation themselves, or receive products or services that come via the transportation system. It was estimated that the TSSF would generate between $31 million and $39 million statewide each year. Of that, 70% would be allocated to senior and disabled transportation, up to a maximum of $28 million. (The remainder of the funds would have been allocated to other programs: 20% to the Oregon State Police for highway patrol officers; 7% for high speed rail; 2% for other projects such as rail, ports, roads, aviation, public transportation, freight, and other non-road transportation improvements; and 1% for grants to ports.) Although this legislation was considered, it was never presented to Oregon voters. It was determined that a gas tax increase would be more feasible and should be pursued instead. However, it is possible that an access fee could be pursued again in the future.

11.8.17 Funding for Pedestrian and Bicycle Projects (Including Trails)

The Oregon Bicycle and Pedestrian Program, administered by ODOT, offers Bicycle and Pedestrian Program Grants. These grants can be used to add pedestrian and/or bicycle facilities within road rights-of-way. These grants apply to projects that would complete missing and/or needed sections of sidewalk, bike lane, or paved shoulder. They are also a good source for enhanced pedestrian crossing projects. One limit of this funding is that to be eligible, the resulting project must be in a road right-of-way.

The Transportation Enhancement Program, administered by ODOT, provides federal highway funds for projects that strengthen the cultural, aesthetic, or environmental value of our transportation system. This funding can be used for a variety of types of projects, from bicycle and pedestrian facilities to trails to scenic beautification to historic preservation to transportation museums. One limitation of this program is that the cycle for accepting applications occurs once every two years, and the County can only apply for one project outside the Salem-Keizer planning area per application cycle. Most cities within Marion County can apply themselves for one project each, and a total of four projects may be submitted by all jurisdictions within the Salem-Keizer planning area. Marion County will work to make best use of the opportunities presented by this program.

11.8.18 Other Funding Sources

Many other funding programs exist, and many more are likely to be developed within the timeframe of this plan. Marion County will work to make best use of whatever funding programs become available when they can help improve transportation in the County.

CHAPTER 12: SUB-AREA PLANS

This section contains plans for areas outside Urban Growth Boundaries, but for which detailed transportation plans are necessary due to high traffic volumes, concentrated trip generation centers, conflicts between uses, community needs, or to set expectations for future developers in the area.

The sub-area plans include three areas: The Brooks Interchange area, the Aurora/Donald Interchange area, and Cordon Road between State Street and Auburn Road. These areas were identified as being the highest priority for this level of planning. Sub-area plans may be appropriate for many other areas, and future updates of this TSP are likely to include additional sub-area plans.

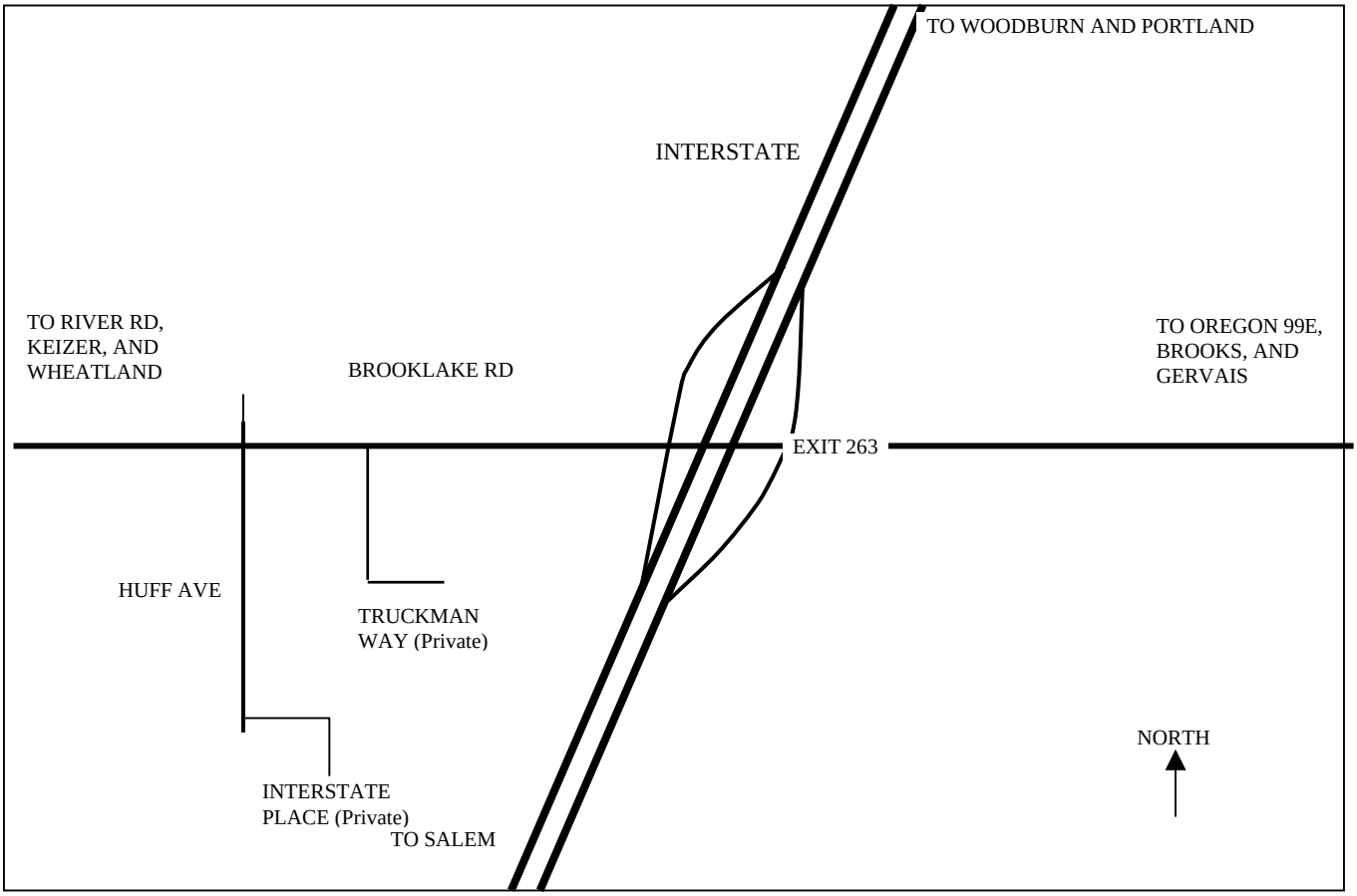
12.1 BROOKS INTERCHANGE AREA

The Brooks Interchange, Exit 263 on Interstate 5, lies approximately three miles north of the Chemawa Interchange (which connects to Keizer and to the Salem Parkway), eight miles south of the Woodburn Interchange, and approximately ten miles northeast of downtown Salem. This sub-area plan covers County Roads within 1,800 feet of the intersection of Interstate 5 with Brooklake Road. This includes 3,600 feet of Brooklake Road, all of Huff Avenue, and intersections with both Interstate 5 ramps and numerous private accesses.

The Brooks interchange serves a large area of very active rural agricultural land, several industrial businesses along the Brooklake Road corridor and the community of Brooks, the cities of Gervais, Keizer, Mt. Angel and St. Paul, Willamette Mission State Park, Marion County's Waste-to-Energy facility, a large truck stop, and a many commercial businesses and attractions in the area. Mobility of traffic to and from Interstate 5 is critical to the economic vitality and quality of life of the region.

Figure 12-1 shows the vicinity of the interchange area:

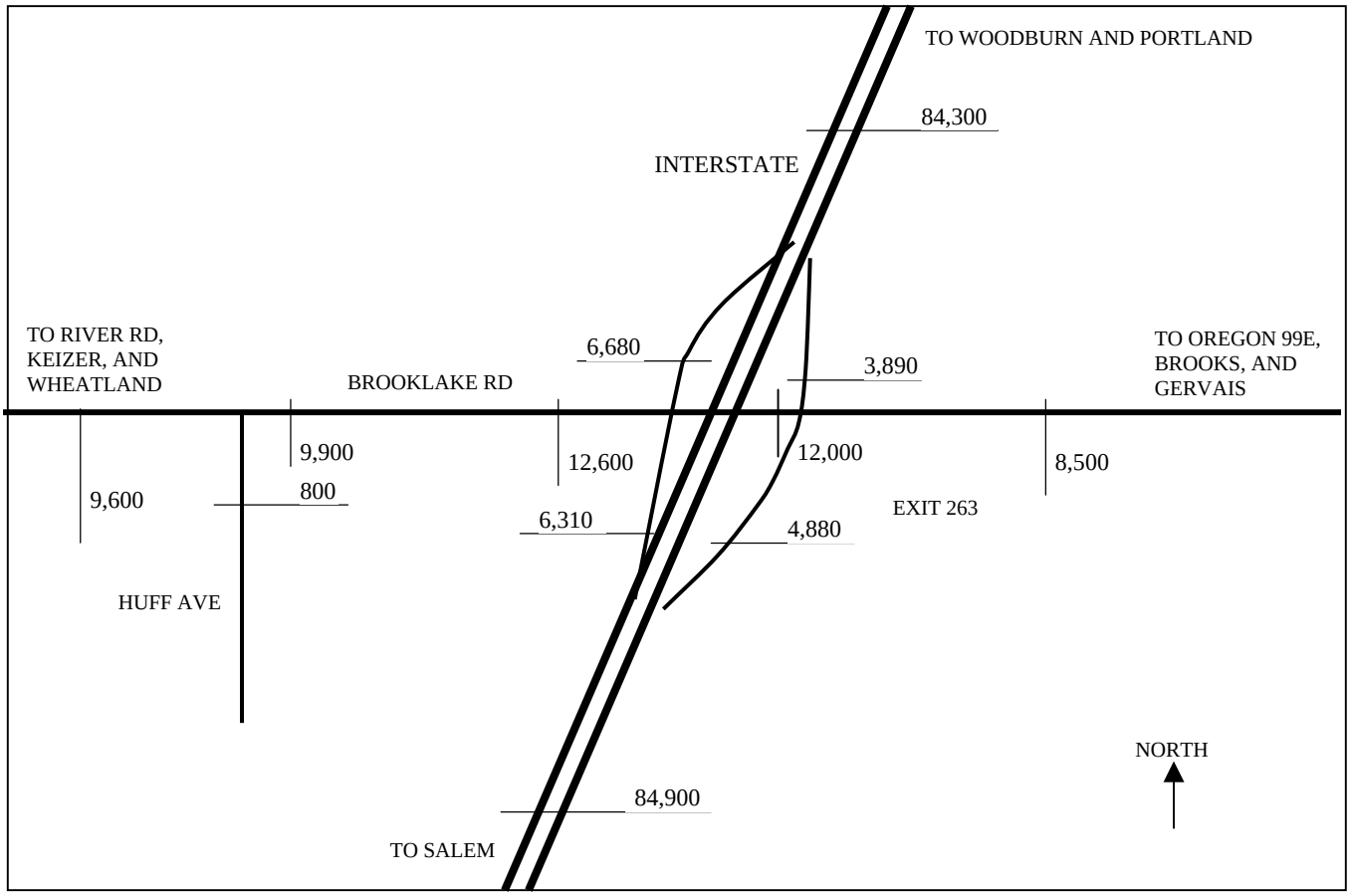
Figure 12-1 Brooks Interchange Area Vicinity Map



Traffic Volumes

Figure 12-2 shows current daily traffic volumes on roadways in the area. Volumes on the Interstate 5 mainline and ramps are from ODOT's 2002 Transportation Volume Tables; other data is from traffic counts taken as part of Marion County's traffic counting program. All volumes are total daily two-direction volume of traffic, except that volumes on freeway ramps are one direction only.

Figure 12-2
Brooks Interchange Area Daily Traffic Volumes



Level-of-Service and Volume/Capacity Analysis

Traffic volumes on both exit ramps from Interstate 5 onto Brooklake Road exceed the intersection capacity at certain hours of the day and are functioning at Level of Service (LOS) F, and meet neither the county's nor Oregon Highway Plan mobility standards (v/c = 0.85). The excessive vehicle delays caused by these capacity deficiencies are highly detrimental to the mobility of freight, agricultural goods, and passengers in the region. It is estimated to cost residents, businesses, and visitors over $1 million per year due to these delays.

Traffic waiting at the stop signs on these off-ramps frequently extends down the ramp into the deceleration area of the off-ramp, and sometimes onto the mainline of the freeway, which creates dangerous situations that need to be corrected.

Traffic is operating at an acceptable level in most other areas on this section of Brooklake Road, although the intersections of Truckman Way with Brooklake Road and the Pilot Auto / May Trucking driveways with Brooklake Road are quite busy and are approaching levels of congestion that warrant attention.

Brooklake Road / I-5 Interchange Management Plan

In 1997, Kimley-Horn and Associates prepared a plan for the Oregon Department of Transportation. The purpose of this plan was to estimate future (year 2015) traffic in the vicinity and assess the impact of this traffic on the interchange and adjacent roadway network. The analysis considered five different alternatives including two different land use scenarios for each alternative. Land Use Scenario A assumed buildout of the Brooklake Road area based on existing zoning. Land Use Scenario B assumed the zoning of some parcels would be changed to more intense uses, such as Interchange District (ID) zoning in some cases. The study found that if this development occurred the following improvements would be required:

- Signalization of the Brooklake Road intersections with the I-5 southbound ramps, the I-5 northbound ramps, and the east and west OAC accesses.
- Construction of a four-lane cross-section on Brooklake Road from the I-5 northbound ramps to the OAC east access, with turn lanes at the accesses.
- Construction of a loop ramp from westbound Brooklake Road to southbound I-5.
- Construction of an additional lane on both the northbound and southbound I-5 off ramps.
- Construction of a free right turn from the I-5 northbound off ramp to eastbound Brooklake Road.
- Improvements at the two OAC access intersections with Brooklake Road, including double left turn lanes on eastbound Brooklake Road.

Most of the alternatives assumed development of the Oregon Agricultural Center (OAC) on the NORPAC property northeast of the interchange. However, as the study was being completed, it grew increasingly unlikely that the OAC would actually be developed, so a sixth alternative without it was formulated. Unfortunately, the overall improvements needed at this interchange really relied on the development of the OAC. Without its development and only that of the remaining property, under Scenario A (which uses existing zoning) the following projects would be necessary to maintain traffic flow:

- Signalization of both ramp terminal intersections.
- Construction of additional exclusive right turn lanes on both Interstate 5 off ramps.
- Construction of a free-right turn lane from eastbound Brooklake Road to the Interstate 5 southbound on ramp. This would require widening of the ramp to allow traffic using the free right turn to merge with other traffic.

Under scenario B without the OAC improvements, but with more intense use of the remaining area, the study concluded that “Attainment of acceptable levels of service at the ramp terminal intersections would require major reconstruction of the interchange, including multiple loop ramps, free right turn movements, and additional lanes on the ramps. One configuration, which would result in LOS D at the ramp terminals in the year 2015, would consist of the following improvements (beyond those needed for scenario A):

- Construction of a loop ramp from westbound Brooklake Road to southbound Interstate 5.
- Construction of a loop ramp from eastbound Brooklake Road to northbound Interstate 5.

- Construction of a free right turn lane from the Interstate 5 southbound off ramp to westbound Brooklake Road.
- Construction of a free right turn lane from eastbound Brooklake Road to the Interstate 5 southbound on ramp.
- Construction of an exclusive right turn lane and dual left turn lanes on the Interstate 5 northbound off ramp, with dual receiving lanes for westbound Brooklake Road.

Even with all of the above improvements, the operation of the interchange may not meet ODOT design operating standards. If not, additional improvements such as a loop ramp from northbound interstate 5 to westbound Brooklake Road and/or widening of the Brooklake Road bridge would also be necessary.

Note that this study considered a horizon year of 2015. An additional ten years must be considered for this plan because the horizon year of this sub-area plan is 2025.

Accident History

Accident history data was obtained from the Oregon Department of Transportation, which was based on accident reports filed with the Department of Motor Vehicles. In this data, seventeen crashes were recorded in this study area in the three years from January 1, 2000 through December 31, 2002.

Eight of these crashes were at the intersection of Brooklake Road with the I-5 northbound ramps. Seven of these eight crashes involved vehicles exiting the freeway, with four of these involving vehicles turning in front of traffic on Brooklake Road, and three rear-end collisions as vehicles waited to turn (or in line waiting for vehicles in front of them to turn) onto Brooklake Road. Sight distance at the ramp terminals may be a contributing factor as well

Three crashes were recorded at the intersection of Brooklake Road with the I-5 southbound ramps. Two crashes were recorded at three different locations on Brooklake Road; at its intersections with Truckman Way (Pilot Truck access), the Pilot Auto / May Trucking driveways, and at the driveway to the NORPAC facility east of the interchange.

Access Management

The Oregon Department of Transportation's 1999 Oregon Highway Plan (OHP), and Oregon Administrative Rule 734-051-0010 ('Division 51') set access spacing requirements for approaches to the cross-street of an Interchange, such as Brooklake Road. In this case the OHP calls for 1,320 feet of spacing between the freeway ramp intersection and the first connection (street or driveway) to Brooklake Road. The intent of these requirements is to facilitate traffic flow to and from the interchange, which is a goal that Marion County supports as well. Access spacing at interchanges is further described in OAR 734-051-0125. Specifically, this section states that spacing standards do not apply to approaches in place prior to April 1, 2000, but that ODOT will work to move closer to achieving spacing standards as redevelopment occurs.

Marion County intends to comply with the spirit of these OHP requirements, while at the same time recognizing that complete compliance with the letter of these requirements is not practical at this time due to existing development patterns, property lines, and land use cases.

Several land use case approvals in this area have specific requirements for access configurations and it is the intent of this sub-area plan to compile these requirements in one document. It is not the intent of this plan to set new policy on access in this area. Any addition of new access or expansion of existing accesses must meet applicable standards and receive approval from Public Works before addition or expansion.

The property located at and behind 4205 Brooklake Road (current taxlot 062W1800100, just north and west of the interchange) was the subject of a land use case in the 1990s. It was determined that access from this property directly to Brooklake Road would not be allowed, because the access would be too close to the interchange. Access for this parcel would be though an easement running north from the intersection of Brooklake Road and Huff Ave along the west property line of current taxlot 062W1800900 (the current May Trucking property) then running east along the north property line of 062W1800900 until it reaches 062W1800100, the subject taxlot. Alternatively, access to this parcel could be granted through 062W1800900 and its current access on Brooklake Road as long as it meets appropriate standards and does not cause traffic problems at its connection with Brooklake Road. However, considering current traffic levels, it would be difficult to add much traffic to this access while still meeting standards. No additional accesses will be permitted to Brooklake Road between Interstate 5 and Huff Avenue.

Access points on the south side of Brooklake Road between I-5 and Huff Avenue exist at the Pilot truck stop; one access for cars opposite May Trucking and another for trucks at Truckman Way. There is some undeveloped land to the west of the Pilot truck stop with access also planned at Truckman Way. These undeveloped properties, along with the Pilot property, were addressed in a November 5, 1995 Traffic Impact Analysis. In this document a specific amount of trip generation due to the development was assumed for these properties. As required in partitioning case # 04-07: development that exceeds this trip generation rate will require a new TIA and mitigation of its traffic impacts on Brooklake Road, the interchange, and other traffic in the area. It is quite possible that increased traffic generation would necessitate extensive mitigation measures. Properties to the south of the above mentioned area would gain access from Huff Avenue via Interstate Place. No additional accesses will be permitted to Brooklake Road between Interstate 5 and Huff Avenue.

To the east of the interchange, access locations have been approved for a development on the NORPAC property including a potential Oregon Agricultural Center. Other access connections to Brooklake Road in this area east of the interchange would have to meet the requirements of the Oregon Department of Transportation and Marion County standards.

A traffic signal would be allowed at the intersection of Brooklake Road with Huff Ave if it meets applicable county criteria (such as MUTCD signal warrants). No signal would be allowed on Brooklake Road between Huff Ave and the Interstate 5 southbound ramps; its effect on traffic movement and safety would be detrimental.

Rideshare

This is a prime location for ridesharing, as it is just north of Salem and adjacent to Interstate 5, a major route from Salem to Portland. Currently, many vehicles are observed parked adjacent to the Pilot truck stop, with their drivers catching rides with other drivers to destinations in the Portland area. There is an

undeveloped park-and-ride area on the east side of the interchange, which essentially is just a wide spot of pavement and gravel. Some drivers had chosen to park near the Pilot, but ODOT has recently decided to not allow this parking.

Provision of a park-and-ride lot near this interchange is highly recommended. This lot should be designed for security (both real and perceived) and user-friendliness. Significant capacity, perhaps for more than 50 vehicles, is recommended.

Bicycle and Pedestrian Issues

Brooklake Road currently has a three-foot paved shoulder through most of the study area, with a five-foot shoulder in front of the Pilot truck stop and Chalet restaurant, from Truckman Way to the southbound ramps of Interstate 5. There are currently no designated bike lanes in the study area.

Sidewalks exist on some portions of Huff Ave and along the south side of the bridge over I-5 between the freeway ramps.

Bike lanes or adequate paved shoulders should be provided on Brooklake Road as a condition of development.

Future Recommendations

The projects recommended in the Brooklake Rd / I-5 Interchange Management Plan for this area (in the absence of the Oregon Agricultural Center (OAC) development) need to be:

- Signalization of both ramp terminal intersections.
- Construction of additional exclusive right turn lanes on both Interstate 5 off ramps.
- Construction of a free-right turn lane from eastbound Brooklake Road to the Interstate 5 southbound on ramp. This would require widening of the ramp to allow traffic using the free right turn to merge with other traffic.

In particular, the projects to signalize and add right turn lanes on the off-ramps need to be constructed as soon as practical. The County will continue to strongly encourage the Oregon Department Of Transportation to fund these projects and construct them quickly to alleviate the crippling economic effects and safety problems inherent in the current situation. The sooner specific projects are identified along with their cost estimates, the easier it will be to identify financial contributions for property owners wishing to develop their property.

It is quite possible that further capacity issues may develop on Brooklake Road within the timeframe of this sub-area plan, which is 2025. In order to address these issues, it is likely to become necessary to construct left turn lanes and install a traffic signal at the intersection of Brooklake Road with Huff Avenue. It is also quite possible that the existing two-lane cross-section of Brooklake Road would no longer be adequate to handle the high volumes of traffic that are anticipated to develop throughout the study area. This is likely to necessitate widening Brooklake Road to three or perhaps five lanes through the study area by the year 2025.

In order to prepare for the widening likely to become necessary to accommodate the traffic demand in this corridor, a special setback is instituted along Brooklake Road through the study area. This special setback will be 100 feet wide, consisting of 50-foot half-widths on either side of the centerline to accommodate the potential five-lane improvement. Additional space may be necessary for slope areas in the future design

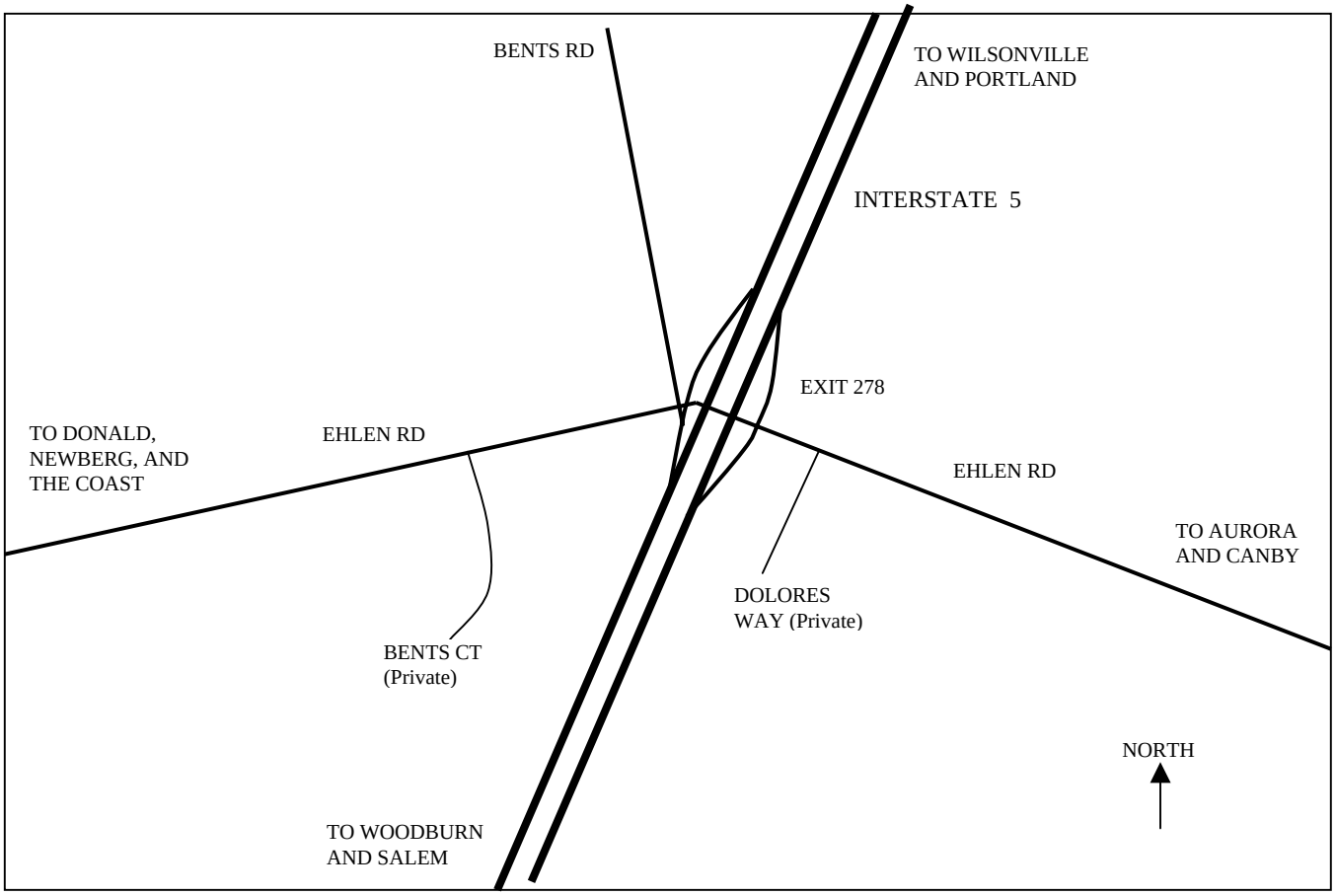
Because of the existing congestion in the vicinity of the interchange, any new access or increase in use of an existing access will necessitate a Transportation Impact Analysis (TIA). If the trip generation of the development (based on ITE or other acceptable data) is less than 600 daily trips, the TIA can be waived if the applicant agrees to the mitigation measures specified by the County. This mitigation will include a fee to pay for the development's proportionate share of the cost to provide traffic signals and turn lanes at the intersections of Brooklake Road with Huff Avenue and with both I-5 northbound and southbound interchange ramps. This fee will be based on the percentage of daily traffic added by the development at each intersection. This calculation will be based on measured existing daily entering volumes of 15,100 daily entering vehicles at the northbound ramps intersection, 19,000 at the southbound ramps intersection, and 10,300 at the Huff Ave intersection. The cost of each of these intersection projects (signals and associated turn lanes) is estimated at $500,000 in 2004 dollars. This cost will be adjusted according to the Seattle Cost of Construction Index as published annually in the December issue of "Engineering News Record." These funds will be used to help defer the costs of the future signals and turn lanes and/or other capacity improvements in the vicinity of the interchange.

12.2 AURORA/DONALD (FARGO) INTERCHANGE AREA

The Aurora/Donald Interchange (also known as the Fargo Interchange) is Exit 278 of Interstate 5, and lies approximately seven miles north of the Woodburn Interchange, four miles south of the Charbonneau Interchange, and six miles southwest of the City of Wilsonville. This sub-area plan covers County Roads within 1,800 feet of the intersection of Interstate 5 and Ehlen Road. This includes 3,600 feet of Ehlen Road, 1,800 feet of Bents Road, and intersections with both Interstate 5 ramps and numerous private accesses. **Figure 12-3** shows the interchange vicinity.

The Aurora/Donald Interchange serves the communities of Aurora and Donald, St. Paul, Canby, Barlow, Butteville, connects to the Aurora State Airport, and provides a good connection to Newberg and the Hwy 18/99W corridor, which connects to Yamhill County and the Coast. This interchange also serves a large area of very active rural agricultural land, Champoeg State Park, several industrial businesses in the vicinity, two large truck stops, and several commercial businesses and attractions in the area. Mobility of traffic to and from Interstate 5 is critical to the economic vitality and quality of life in the region.

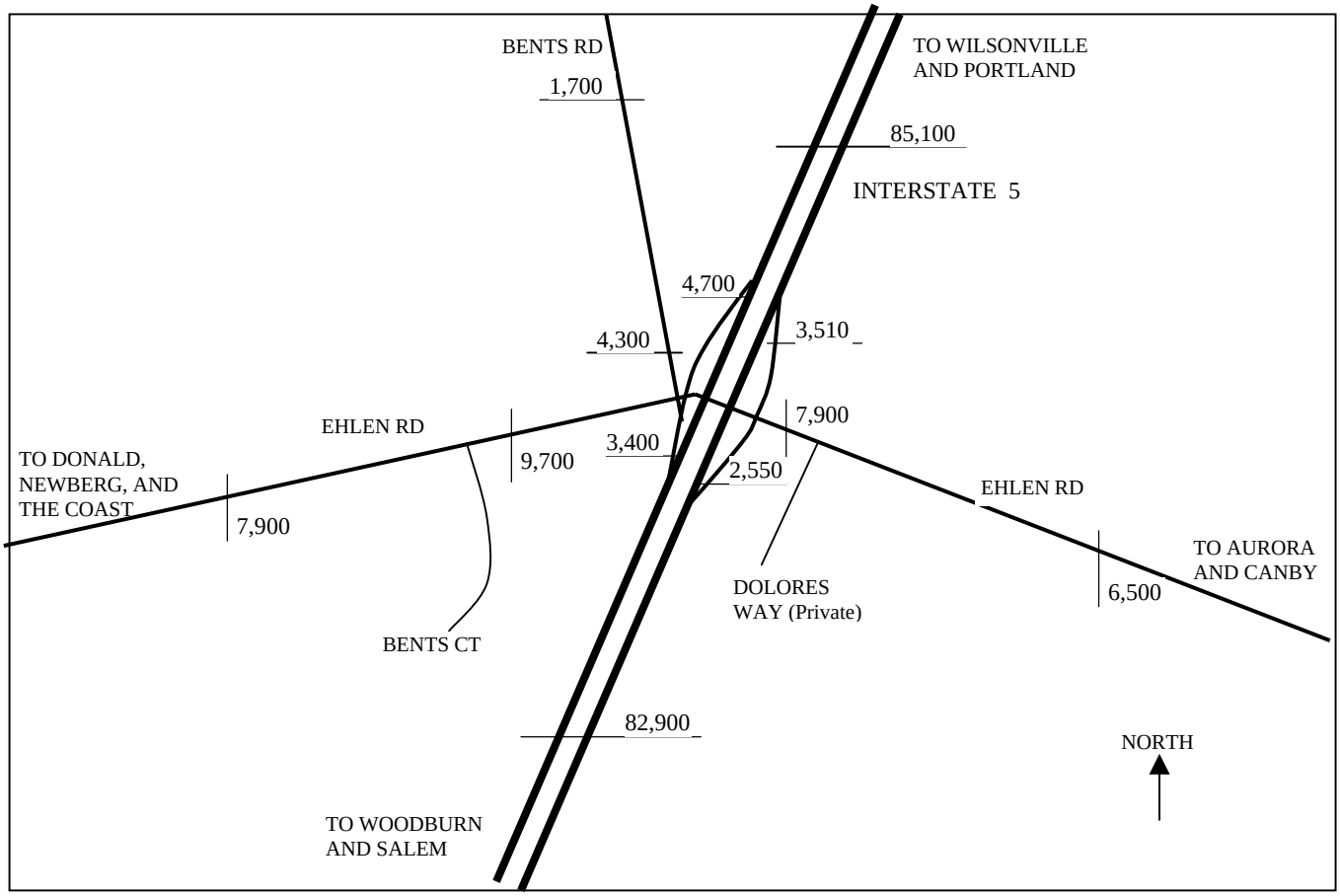
Figure 12-3
Aurora/Donald Interchange Area Vicinity Map



Traffic Volumes

Figure 12-4 shows current daily traffic volumes on roadways in the area. Volumes on the Interstate 5 mainline and ramps are from ODOT's 2002 Transportation Volume Tables; other data is from traffic counts taken as part of Marion County's traffic counting program. All volumes are total daily two-direction volume of traffic, except that volumes on freeway ramps are for one direction only.

Figure 12-4
Aurora/Donald Interchange Area Daily Traffic Volumes



Level-of-Service and Volume/Capacity Analysis

Traffic volumes on the exit ramp from southbound Interstate 5 to Ehlen Road, and on Bents Road approaching Ehlen Road currently exceed the capacity of these intersections at certain hours of the day, and thus these intersections are functioning at Level of Service (LOS) F. Because of these capacity deficiencies, both of these intersections do not meet Marion County's nor Oregon Highway Plan mobility standards (v/c = 0.85). These deficiencies are compounded by the fact that these two intersections are very close to each other (about 50' apart) which forces drivers to watch the other intersection as well as their own to know when it is safe to move. Adding to these capacity deficiencies are frequent slow

turning movements of large trucks, the grade on Ehlen Road westbound at the intersections, and the curve through the intersections. In addition, the lack of a left turn lane for westbound to southbound traffic causes these left-turners to wait in the travel lane of Ehlen Road. This results in delays to through traffic and concerns for the safety of stopped vehicles in a travel lane. It occasionally results in a near-gridlock situation in which eastbound traffic is waiting behind a left-turner at the northbound ramp who is blocked by a line of traffic waiting for a westbound left-turner at the southbound ramp, who in turn is blocked by the line of waiting eastbound traffic. The excessive vehicle delays caused by these capacity deficiencies are highly detrimental to the mobility of freight, agricultural goods, and passengers in the region, as well as considerable added costs associated with these delays.

Traffic backup at the stop sign on the southbound off-ramp frequently extends up the ramp into the deceleration area of the ramp, and sometimes onto the mainline of the freeway, resulting in dangerous situations that need to be corrected. This is compounded by the very high percentage of large trucks using this exit, as these trucks take up more space in the queue than cars

Long traffic queues also develop on Bents Road approaching Ehlen Rd, sometimes blocking the auto entrance to the truck stop, also resulting in unsafe situations that need to be corrected.

Traffic on the exit ramp from northbound Interstate 5 to Ehlen Road is approaching the capacity of this intersection. It is a highly detrimental situation similar to that described for the southbound ramp and it needs to be corrected. In addition, the lack of a left turn lane for eastbound to northbound traffic causes these left-turners to wait in the travel lane of Ehlen Road. This results in delays to through traffic and concerns for the safety of stopped vehicles in a travel lane. It occasionally results in a near-gridlock situation in which eastbound traffic is waiting behind a left-turner at the northbound ramp who is blocked by a line of traffic waiting for a westbound left-turner at the southbound ramp, who in turn is blocked by the line of waiting eastbound traffic.

Traffic is currently operating acceptably at other locations in this area, although the intersection of Bents Court with Ehlen Rd is also busy and approaching levels of congestion that warrant attention.

Accident History

Accident history data was obtained from the Oregon Department of Transportation, which was based on accident reports filed with the Department of Motor Vehicles. In this data, 39 crashes were recorded in this study area in the three years from January 1, 2000 through December 31, 2002. This is a substantial accident history in this area.

Twenty-one of these crashes were at the intersection of Ehlen Road with the I-5 southbound ramps and with Bents Road. Nine of these crashes involved vehicles pulling out southbound (from either the freeway ramp or Bents Rd) when there wasn't adequate space to do so. Six crashes involved westbound vehicles on Ehlen turning left when there wasn't room available. Four crashes were southbound rear-end collisions on the freeway ramp. This is a very 'busy' area from a drivers perspective, as drivers must deal with a curve, a narrow overpass, two busy intersections in an unusual configuration, heavy truck turning movements, grades, and busy private accesses. The 'busy-ness' of this area makes it difficult for drivers to discern when it is safe for them to move, resulting in some drivers waiting a very long time to ensure everything is clear, while some other drivers just go anyway and expect others to avoid them.

Thirteen of these crashes occurred at the intersection of Ehlen Road with the I-5 northbound ramps. Eight of these crashes involved northbound vehicles pulling out when there wasn't adequate space to do so. Three involved eastbound left turners. Visibility for northbound traffic is somewhat limited by the freeway overpass structure and the curve of Ehlen Road through the interchange.

There were five crashes recorded on Ehlen Road in the study area, of which three were recorded at the easternmost access of the Leathers truck stop.

Access Management

The Oregon Department of Transportation's 1999 Oregon Highway Plan, and Oregon Administrative Rule 734-051-0010 ('Division 51') set access spacing requirements for approaches to the cross street of an Interchange, such as Ehlen Road. In this case the plan calls for 1,320 feet of spacing between the freeway ramp intersection and the first connection (street or driveway) to Ehlen Road. The intent of these requirements is to facilitate traffic flow to and from the interchange, which is a goal that Marion County supports as well. Access spacing at interchanges is further described in OAR 734-051-0125. Specifically, this section states that spacing standards do not apply to approaches in place prior to April 1, 2000, but that ODOT will work to move closer to achieving spacing standards as redevelopment occurs.

Marion County intends to comply with the spirit of these requirements, while at the same time recognizing that complete compliance with the letter of these requirements is not practical at this time due to existing development patterns, property lines, and land use cases.

Several land use case approvals in this area have specific requirements for access configurations, and it is the intent of this sub-area plan to compile these requirements in one document. It is not the intent of this plan to set new policy on access in this area. Any addition of new access or expansion of existing accesses must meet applicable standards and receive approval from Public Works before addition or expansion.

Bents Road is the only significant access point on the north side of Ehlen Road to the west of the interchange. This intersection is too close to the freeway ramps for traffic entering Ehlen Road, as is evidenced by the accident data. The plan has been, and continues to be, to realign Bents Road to the west so that it intersects Ehlen Road opposite Bents Court. A signal is planned at this intersection of realigned Bents Road, Bents Court, and Ehlen Road when the intersection meets traffic signal warrants. Developers in this area have contributed some funding toward its installation. No access will be permitted to Bents Road in the queuing area of this future signal. No other access would be permitted to the north side of Ehlen Road between the freeway ramps and the future realigned Bents Road opposite Bents Court, with the possible exception of a right-in access at the existing Bents Road. These plans were in place prior to the adoption of the 1999 Oregon Highway Plan and Oregon Administrative Rule 734-051-0010.

There are several existing accesses to the truck stop south of Ehlen Road west of the interchange between the freeway ramps and Bents Court. The policy governing these has been set previously through various land use cases, and is stated in an August 24, 1998 letter to the property owner as follows:

"As has been previously stated, the long-range plan for this area is for all access to the site to be via Bents Court. This would mean that all current site accesses to Ehlen Road would be closed, with the possible exception of a supplemental right-turn-out only access to Ehlen Road." The existing driveways are considered to be temporary accesses.

There is one access on the north side of Ehlen Road to the east of the interchange. This is a lightly-used field access that is in the freeway Right-Of-Way, and could have some freeway maintenance or emergency usability. This access may remain for these purposes, but may not be used for any commercial or other developments that would increase its usage level. No other access connections will be permitted to the north side of Ehlen Road within 1,320 feet east of the interchange ramps.

Dolores Way intersects Ehlen Road on the south side, approximately 350 feet east of the I-5 northbound ramps. Dolores Way is a private road providing access to an RV Park, a fuel station/mini-mart, and some other businesses in the southeast corner of the interchange. Dolores Way was constructed before the current Oregon access management requirements took effect, and the properties it serves are essentially fully developed. Any redevelopment or increased development of these properties that would significantly increase the trip generation would have to meet the requirements of the Oregon Department of Transportation and Marion County. This would likely necessitate moving Dolores Way to the east. There are two additional accesses to a farm and a farmhouse on the south side of Ehlen Road east of the interchange. These driveways may remain for the existing uses, but any redevelopment or increased development of this property will have to meet the requirements of the Oregon Department of Transportation and Marion County, which would likely mean relocating these driveways to the east.

Rideshare

This is a good location for ridesharing, as it is along the major route from Salem to Portland. This is evident by the number of vehicles often seen parked along Ehlen Road or Bents Court.

Provision of a park-and-ride lot near this interchange is recommended. This lot should be designed for security (both real and perceived) and user-friendliness. After this lot is constructed, parking should be eliminated on Ehlen Road.

Bicycle and Pedestrian Issues

Ehlen Road currently has five-foot paved shoulders through most of the plan area, with the exception of the portion between the two sets of freeway ramps. Provision of sufficient shoulder to be used as a bikeway on this section would be quite costly, as bridge supports occupy the space where the widened shoulder would be, and it would be difficult to fit in a sidewalk under the bridge. This is another factor in support of reconstructing the interchange.

Future Recommendations

Detailed study of this interchange area should be undertaken by the Oregon Department of Transportation to determine how ODOT will address the various issues in this study area. This study will need to consider the current problems in the interchange area:

- Address geometric deficiencies
- Traffic delay and lack of capacity at both freeway ramp intersections with Ehlen Road
- Possible provision of separate left and right turn lanes at both freeway ramp intersections with Ehlen Road, and left turn refuges on Ehlen Road.
- Possible reconstruction of the I-5 bridges over Ehlen Road and widening of Ehlen Road between the interchange ramps.
- Possible realignment of Bents Road to the west to opposite Bents Court, possibly with a traffic signal at this proposed four-way intersection.
- Possible consolidation or closure of accesses along Ehlen Road as it approaches the interchange.
- Extend the off-ramps.

The best long-term solution may involve a complete reconstruction of the interchange area, which would be lengthy, expensive, and require many approvals. Some projects may be necessary in the interim to keep traffic safely moving until the long-term solution can be implemented. The sooner specific projects are identified and planning cost estimates are determined, the easier it will be for development to accurately plan for future conditions, and the easier it will be to identify financial contributions that should be made by new development.

In particular, the projects to signalize and add right turn lanes on the off-ramps need to be constructed as soon as practical. The County will continue to strongly encourage the Oregon Department of Transportation to fund these needed projects and construct them quickly to alleviate the highly detrimental economic effects and safety problems inherent in the current situation.

It is quite possible that further capacity issues may develop on Ehlen Road within the timeframe of this sub-area plan, which is the year 2025. This possibility would be evaluated in the detailed study of the interchange area.

In order to prepare for the widening likely to become necessary to accommodate the traffic demand in this corridor, a special setback is instituted along Ehlen Road from 2,000 feet west of the centerline of Interstate 5 to 1,000 feet east of Interstate 5. This special setback will be 100 feet wide, consisting of 50-foot half-widths on either side of the centerline to accommodate a potential future four-lane improvement.

Because of the existing congestion in the vicinity of the interchange, any new access or increase in use of an existing access will necessitate a Transportation Impact Analysis (TIA). If the trip generation of the development (based on ITE or other acceptable data) is less than 600 daily trips, the TIA can be waived if the applicant agrees to the mitigation measures specified by the County. This mitigation will include a fee to pay for the development's proportionate share of the cost to provide traffic signals and turn lanes at the intersections of Ehlen Road with the realigned Bents Road and with both I-5 northbound and southbound interchange ramps. This fee will be based on the percentage of traffic added by the development at each intersection during an average day. This calculation will be based on measured existing daily entering volumes of 11,500 daily entering vehicles at the northbound ramps intersection, 14,500 at the southbound ramps intersection, and 11,500 at the realigned Bents Rd / Bents Ct intersection. The cost of each of these intersection improvements (signals and associated turn lanes) is estimated at $500,000 each in 2004 dollars. This cost will be adjusted according to the Seattle Cost of Construction Index as published annually in the December issue of "Engineering News Record." These funds will be used to help defer the costs of the future signals, turn lanes and/or other capacity improvements in the vicinity of the interchange.

12.3 CORDON ROAD (FROM STATE STREET TO AUBURN ROAD)

Cordon Road is an important north-south Arterial in Marion County just east of the Salem urban area. It connects with Kuebler Boulevard to provide the primary circumferential route south and east of Salem, and is intended to efficiently move large volumes of traffic. Cordon Road is designated as a Parkway (higher than a Major Arterial) in the Salem Transportation System Plan and a Major Arterial in the Salem-Keizer Area Transportation Study Regional Transportation System Plan. This portion carries about 17,000 vehicles daily with a speed limit of 45 mph. This sub-area plan covers Cordon Road from (and including) State Street to Auburn Road.

This area includes a fire station, soccer fields, baseball fields, several businesses, private residences, and a large undeveloped property (site of the former Pictsweet mushroom processing plant). This area would also be affected by added traffic from future development in the region, including the Salem Regional Employment Center (Mill Creek site) and a potential interchange between Cordon Road and Oregon 22.

Level-of-Service and Volume/Capacity Analysis

Current capacity and traffic flow analysis for this segment of Cordon Road indicates a Level Of Service (LOS) D with a volume capacity (V/C) ratio of 0.57 during the afternoon peak hour. This just meets Marion County's mobility standard of LOS D or better with a V/C of 0.60 or better. However, with future growth in traffic volume, traffic flow is anticipated to deteriorate below minimum standards within the next five years. Due to this anticipated deterioration of mobility, a need has been identified to widen this segment of Cordon Road to provide an additional travel lane each direction. This widening would be done to City of Salem Parkway standards, as they would be most appropriate for this roadway, and in order to provide regional consistency.

The intersection of State Street with Cordon Road currently operates acceptably (LOS C with a V/C ratio of 0.77) during the afternoon peak hour. However, as with the segment of Cordon Road (from Auburn Road to State Street), future growth in traffic volume is anticipated to cause traffic flow to deteriorate below Marion County standards. No separate intersection project is planned here because the larger project to add lanes on Cordon Road would also include turn lanes on Cordon Road and State Street as necessary to address these capacity issues.

The intersection of Auburn Road with Cordon Road is also just above the LOS and V/C thresholds, so the need has been identified for a traffic signal at this intersection. Construction of this traffic signal is programmed in 2008 with funds from the Federal Surface Transportation Program through the regional Metropolitan Planning Organization.

Accident History

Accident history data was obtained from the Oregon Department of Transportation, which was based on accident reports filed with the Department of Motor Vehicles. In this data, 21 crashes were recorded in this study area in the three years from January 1, 2001 through December 31, 2003.

Ten of these crashes occurred on Cordon Road at the various driveways between Auburn Road and State Street, and most of these crashes involved vehicles entering or exiting the driveways, or waiting for others to turn into the driveways. Six of the crashes (typically angle or turning crashes) occurred at the Auburn Road intersection, and five of the crashes (typically rear-end crashes) occurred at the State Street intersection.

Access Management[dlf1]

Due to the significance of Cordon Road in the regional transportation system, it is important to maintain its viability as an efficient route for through traffic. The Board of Commissioners recognized this in 1981 and resolved "that limiting and controlling further access to Cordon Road is necessary for the preservation of public safety and the protection of traffic from the hazards of unregulated and unrestricted entry from adjacent property, and in general, the promotion of public welfare…". Along with this resolution, the Board of Commissioners adopted an Ordinance that limits access to Cordon Road.

The high traffic volumes and accident history on this segment of Cordon Road indicate a need to further limit access to it. Currently many individual properties access directly onto Cordon Road in this area, and the potential exists for much more development. The long-range plan is to close these accesses to Cordon Road and provide access to these properties in other ways, typically from a local road or access easement connecting to either Auburn Road or State Street. Potential locations of these local roads are shown in **Figure 12-5.** It should be noted that all street alignments are conceptual, and could vary depending on development.

An exception to these access restrictions may be considered for fire and emergency vehicles entering Cordon Road from the fire station to respond to emergency calls.

This change in access would typically be made as the property redevelops, as safety conditions indicate a need, or in conjunction with a project to improve mobility on Cordon Road. Provision of these access roads and access reconfiguration will likely be achieved incrementally as parcels redevelop, relocate their access, and construct their portion of the local roads from which their access will be provided. For remaining accesses onto Cordon Road, it may become necessary to limit their use (such as allowing only right turns, for example) for safety reasons. When Cordon Road is widened, the goal is to have all accesses reconfigured before, or in conjunction with, that project.

Marion County
OREGON
Public Works

Rural Transportation System Plan
2005 Update

Date:	Project:	Prepared By:
12/21/05	U:\GISProjects\Traffic\RTS_Plan\ Fig12_5optionsC_V3.mxd	SFF

Figure 12-5
Potential Access Configuration

CHAPTER 13: LONG TERM TRANSPORTATION ISSUES

The State Transportation Planning Rule, which outlines the minimum requirements for transportation plans, requires a minimum of a 20-year planning period. However, the intent of the rule is not to restrict agencies from looking beyond the minimum requirements. Marion County believes that it is necessary to take a longer-range view of transportation and land use issues if we are going to influence how the region will develop and function through the 21st Century. Although it is difficult to predict conditions that may impact transportation in the next 50 to 100 years, it is reasonable to assume that the County will continue to grow in terms of population and employment. Based on this assumption, it is logical to assume that the existing transportation system will not meet the long-term mobility needs of County residents. To address the need to provide a functional transportation system the County has identified issues that we expect to arise in the future.

These issues will hopefully create a starting point for consideration and development of a direction that will guide future growth in Marion County. The intent of this chapter is not to pinpoint exactly what will occur, but to create an awareness that initiates and maintains discussion that will allow us to preserve options and alternatives that the County may wish to pursue in the future. It should be understood that these long-term issues are only concepts at this time and still require extensive study before the County is ready to pursue implementing any of these ideas. This plan is not intended to serve as authorization for the County to begin construction on any of these concepts.

Within the 20-year horizon of this plan, the County will focus on facilitating intra- and inter-County mobility by maintaining the function of key transportation corridors that serve travel and freight movement internal to the County and to major links outside the County. By pursuing this strategy, the County addresses many of the commuting needs and farm-to-market issues of County residents and the needs of businesses to ship and receive products and materials. In addition, this strategy provides good connections with adjacent jurisdictions and supports the desire for an efficient regional transportation system.

To look past the initial 20-year period, we need to take a broader perspective. As identified in Section 2.3, two of the initial objectives in the development of this plan, we can move in this direction by:

- Influencing the future of the County through strategic transportation and land use planning. Conceptualize the infrastructure 50 to 100 years in the future and influence growth and development patterns in accordance with future planning goals.

- Preserving flexible infrastructure options and concepts, such as major corridors, grid and radial systems, circumferential arterials (beltways), park-and-ride facilities, etc., without necessarily identifying specific routes, locations, or design until deemed appropriate.

The long-term focus assumes continuation of the shorter-term philosophies of intra- and inter-County mobility. However, it seeks to take a more speculative view of how land use and transportation may change from what we see today. Marion County has a functioning, and reasonably efficient, road network today. It is reasonable to assume that our distant future network will look much the same with the exception of selective upgrading and enhancement as necessary to maintain an effective system for the

needs of the region within funding limitations. However, there are several factors that we feel may play a larger role after 20 years than they currently do. These factors include:

1. Peripheral Routes and Strategic Corridors
2. Passenger Rail Service with Supporting Access Network
3. Transportation Systems Management Strategies
4. Aggressive Transportation Demand Management Tools
5. Additional Connections to Interstate 5 and Highway 22
6. Additional Crossings of the Willamette River
7. Changing Land Use and Transportation Characteristics

It is worth noting that this represents only a preliminary list of possible long term issues and that others could be identified and included for consideration at any time. Also, the suggested actions or directions with regard to any of these issues will likely change as more information becomes available.

13.1 PERIPHERAL ROUTES AND STRATEGIC CORRIDORS

An issue that currently exists but will only become more complex in the future, is how to provide mobility throughout the County while preserving community livability in the urban centers, particularly in some of the smaller cities. Several of the 20 incorporated cities in the County have a major regional route, such as a County Arterial running right through the center of town. Some of these cities have already indicated a desire to redirect commercial truck traffic and non-local thru traffic around their city center. Their issues with this traffic include speed, safety, pedestrian mobility, major throughways that bisect and divide their community, and to a small degree congestion problems. The delays experienced in these cities (and the accident potential of driving through a city) can also be detrimental to the freight hauling industry. The idea of peripheral routes is to provide connections between strategic corridors that circumvent or bypass city centers.

The most obvious benefit to a community of a peripheral route is that it would facilitate the "neighborhood feeling" in the core areas which is so important to promote the pedestrian and bicycle friendly development and urban center concepts that are highly recommended in the *ODOT Strategy for Integrating Transportation and Land Use*. One of the best ways we can promote bicycle-friendly and pedestrian-friendly cities is to pull out regional traffic that has no interest in, or consideration for, the local community. On the other hand, it is the County's goal to provide a transportation system that promotes safe, efficient, and timely travel for all its users, and regional automobile and truck mobility is an important component of the quality of life and economic vitality of the region. These are obviously conflicting interests in these small communities, but both are in the best interests of the general public.

The concept of providing peripheral roads would not be appropriate for every urban community. The cost of providing such a route could vary from small improvements on existing roadways to requiring entirely new rights-of-way through valuable resource land or already developed lands. The cost to society, both in dollars and impacts, has to be evaluated carefully and weighed against the benefits. In urban areas, land use issues are less of a problem, but cost and impact to adjacent land uses may be insurmountable. In the rural areas, legal and land use issues may very well be insurmountable, but the overall impact may be less

to surrounding uses. In either situation, strict land use policies would be required to prevent development along these peripheral routes and to preserve their function as traffic-moving facilities.

Under existing land use policies and current levels of development, routes around urban centers are very much discouraged, if not outright prohibited. Some may be warranted, and some may not be. What will the situation be in 30 or 70 years? Who can really say? It is the County's view that the concept of peripheral routes, including those in rural lands, should be preserved as possible future options for the County. The best way to do this is to speculate on where these roads are most likely to be needed or considered, and to take appropriate action to prevent the options from being eliminated. Peripheral routes inside urban growth boundaries are allowed under current land use regulations and in some cases, are being addressed in the respective cities' urban TSPs.

To document current thoughts on locations where some degree of urban center bypass may be appropriate in the future, **Figure 13-1** was developed. These potential routes are very conceptual in nature, and do not represent an intention on the part of the County to pursue creation of any of these at this time. They will be considered as those communities develop, and be discussed as potential future options. Illustrated on the figure are existing routes that are already being used, or could be used, to avoid an urban center; possible peripheral routes that have been identified in various city TSPs; and other peripheral routes that the County has suggested may be advantageous in the future.

In addition to the concept of peripheral routes, there is also an expectation that certain of the designated strategic intra-/inter-County corridors may need extension and refinement in the future. **Figure 13-1** shows the designated intra- and inter-County corridors that we focused on in the 20-year plan and will continue to focus on for the longer-term strategy. It also shows those locations where changes to these corridors may need to be addressed in the future. Note that in most cases, a corridor extension or refinement would be accomplished using existing roadways. In addition, the County believes these corridors will need to be supplemented with future park-and-ride lots to promote and take advantage of transit and ride-sharing opportunities. Again, these concepts are illustrated on **Figure 13-1**.

13.2 PASSENGER RAIL SERVICE WITH SUPPORTING ACCESS NETWORK

The Oregon Transportation Commission has deemed the development of a high-speed rail system in the Willamette Valley as one of its strategic initiatives. Passenger rail service, in the form of light rail, commuter rail, and/or high-speed rail, is a viable alternative for the County in the future.

The Oregon Rail Passenger Policy and Plan calls for the development of high-speed rail between Eugene and Portland. The Union Pacific line runs through Marion County and is the leading candidate for high-speed rail service. If passenger rail service is developed, the County foresees a need to provide an access network to serve as a "feeder" system to the rail line. Providing an access network could involve improving grade crossings, constructing park-and-ride facilities, upgrading selected roads that service rail stations, or constructing new access roads altogether. High-speed rail would also require constructing several grade-separated crossings and improving tracks to handle speeds between 79 and 110 mph.

The concept of passenger rail service from Wilsonville to Beaverton is currently working its way through the planning process. This same rail line extends south from Wilsonville into Marion County, through

Donald, close to Woodburn, through Keizer, and into Salem. The possibility of extending passenger service to Salem is of interest to Marion County. The timeframe for developing this service may occur within the next 20 years, but could also extend beyond a 20-year time frame.

The County could also look at facilitating a public transportation system or organizing a fleet of vanpools to service the passenger rail line from outlying areas. This possibility, which would integrate nicely with any existing intercity bus service, will have to be evaluated further once passenger rail service gets closer to implementation.

13.3 TRANSPORTATION SYSTEM MANAGEMENT (TSM) STRATEGIES

Another area that will play a larger role in the future is the use of TSM strategies to maximize the efficiency and safety of the existing transportation system. This could include access management strategies, land use controls, new or additional traffic control devices, and traffic control improvements such as coordinated signal timing or signal preemption for transit. The effectiveness and suitability of these strategies is highly a function of technological changes and advancements. It also is a function of society's level of commitment to solving transportation problems. Developments such as Intelligent Transportation Systems and Intelligent Vehicle Highway Systems will promote many changes in driver behaviors, incident management, capacity utilization, and general efficiency of the transportation network and all of its components. It is likely that some level of transportation systems management will be part of any long or short- term strategy.

13.4 AGGRESSIVE TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES

As we progress in the 21st Century, the way we view transportation is rapidly changing. In the past, transportation generally meant moving or obtaining goods and services by roads, rail lines, or air. Now, transportation also applies to the movement of information, and more and more jobs involve "transporting" information from one site to another. Continuing advances in technology will make it easier and faster to move information through facilities other than roads. Phone lines, cable lines, dedicated Internet lines, microwave, and satellites represent the new, non-traditional facilities of the future transportation system. While most goods and many services will still require the use of roads for transport, a significant number of work and shopping trips can be made through modem lines and the Internet.

As a long-term strategy, the County should aggressively encourage and pursue the various options to reduce the demand for transportation on the roadways (see chapter 8 for a more detailed description). Success on a grand scale will require partnerships between public and private sectors to educate the public and make programs possible for things like telecommuting, trip reduction, flex time, parking management, ridesharing, employer based transit, etc. This strategy will be slow to mature given its dependence on public voluntary participation, thus making it pertinent in a long-term transportation strategy.

13.5 ADDITIONAL CONNECTIONS TO INTERSTATE 5 AND HIGHWAY 22

Interstate 5 is the Principal Arterial of the West Coast, linking Oregon with Washington, California, Canada, and Mexico. It also provides the connection to major East-West routes that link the West Coast with the rest of the country. About 30 miles of Interstate 5 pass through rural Marion County. There are several connections to and from Interstate 5 in rural Marion County: three in the 10 miles south of Salem, and three in the 20 miles north of Salem. Good access to Interstate 5 is expected to become more and more critical as the County grows, and as the economy becomes more global. As worldwide mobility becomes increasingly important, efficient shipment of goods and movement of people is expected to become increasingly important to the economic vitality of the region. Thus, good access to Interstate 5 is expected to become more and more important to the quality of life in Marion County as we progress into the future.

Access is a concern, especially north of the Salem area, because all three interchanges north of Salem currently have capacity issues, which are expected to worsen over time. A project to reconstruct the Woodburn Interchange (exit 271) will help traffic to and from Woodburn over its 20-year design life. However, much more will need to be done in the long term to continue providing acceptable access to and from Interstate 5. This will likely involve major improvements to both the Brooks Interchange (exit 263) and the Aurora/Donald Interchange (exit 278). The location of the Woodburn Interchange is problematic from a regional perspective because through traffic must pass through the center of Woodburn to use it. As Woodburn is expected to grow very quickly, getting through Woodburn will become more and more of a problem. A new connection to or from Interstate 5 could become necessary near Woodburn, likely south of the city. This new interchange could alter travel behaviors not only in the immediate Marion County area, but also reach into adjacent counties and even affect some statewide trips

Of course, this all is predicated on the continued viability of Interstate 5 as a transportation corridor and that ODOT, FHWA, and other agencies will have the resources to address the capacity, maintenance, preservation, and bridge replacement issues that are anticipated to arise on Interstate 5. Because Interstate 5 is critical to the regional, state, and national economy, investment to maintain the capacity, function, and safety of the interstate and its interchanges will continue to grow more and more critical. It is important that the County, as well as other transportation agencies, review the function of Interstate 5 and any proposed modifications to it from an intra-state as well as an inter-state perspective.

Oregon 22 is another important Oregon Statewide Highway that passes East-West through Marion County. It has recently been improved to four lanes with access at interchanges only between Salem and Stayton. Maintaining good access to and from Oregon 22 will be important for Marion County, particularly southeastern Marion County, well into the future.

13.6 ADDITIONAL CROSSINGS OF THE WILLAMETTE RIVER

Currently under study in the Salem metropolitan area is the feasibility of adding capacity to present Willamette River crossings or pursuing additional river crossings. A potential location (the Pine/Tryon corridor north of downtown Salem) has been selected for a new bridge, and authorities are seeking funding to undertake the detailed environmental and community study necessary before a bridge can be constructed.

Marion County, over the years, has also entertained many discussions with adjacent jurisdictions about the need to add or improve river crossings. Several members of the general public involved in the development of this transportation plan also suggested the need for additional river crossings, especially in the north end of the County. The whole idea of adding new crossings has been a hotly debated issue and will likely never disappear altogether. Like new interchanges on Interstate 5, new river crossings will have a far-reaching impact on transportation throughout the region. A regional evaluation, possibly combined with any major investment studies of interstate proposals, should be undertaken when the time is appropriate. It is expected that some study will occur in the near term, but the issue is quite complex and will certainly extend well into the long-range planning period.

13.7 CHANGING LAND USE AND TRANSPORTATION ISSUES

The key factor in determining the future transportation needs of Marion County is how the County develops in the coming years. This development is shaped by many factors including land use regulation, the economy, sociological trends, technological development, the priorities of the people, availability of resources and fuels, investment in the transportation system, and even national security. Major changes in any of these areas (or a host of other areas) would necessitate a fresh look at our Transportation System Plan, and may take the County Transportation System in directions that we wouldn't imagine presently.

One area to particularly watch closely is land use regulation. Many legislative proposals (and ballot measures) have been made that would significantly affect Oregon's land use planning system. Any significant changes to Oregon's land use laws, especially the Urban Growth Boundary concept, will significantly affect Marion County's transportation system.

A second area to watch carefully is the rise of inter-city commuting and travel. Housing prices have seen a large increase in western Oregon in recent years, especially near the larger employment centers, such as the Portland metropolitan area. Land use regulations have contained the sprawl of the suburbs of these large cities, so in many cases people have moved to neighboring or outlying smaller cities, and commute across rural areas between cities to get to work. In many cases in Marion County, this essentially results in urban commute traffic pressure on the rural transportation system. In the future, Marion County and its cities will need to work towards providing a good balance of residences and employment in each city and region. In addition, there seems to be a trend towards driving longer distances more frequently for shopping and recreational purposes as well. As there are more and more products on the market, and as more and more niche markets develop for highly specialized products, and as consumer spending tends to increase, people are more willing to travel farther to get what they want. These all increase travel and the pressure on the rural transportation system. In the future, Marion County and its cities will need to work towards providing good shopping opportunities closer to where its people live, especially in the smaller cities. It will also help if people are made more aware of the true costs of their travel habits.

Another area that can affect the transportation system would be increased use of rural areas in ways that are not traditionally rural. For example, recent technology such as the Internet has made it much easier to run various types of businesses out of one's home. We have also seen a rise in businesses, such as retail nurseries, whose products are rural in nature but attract dozens or even hundreds of customers a day. For these and other reasons, we have seen significant growth in traffic to and from rural areas. Continuation of these trends would substantially affect Marion County's rural transportation system.

Planners are becoming increasingly aware of the cause-and-effect relationships between land use planning and transportation system planning. It is wise to continue and improve current practices of land use planning that maximize the effectiveness of the transportation system, and to continue and improve current practices of transportation planning that optimize the effective use of available land. This is anticipated to become increasingly important in the future.

Summary

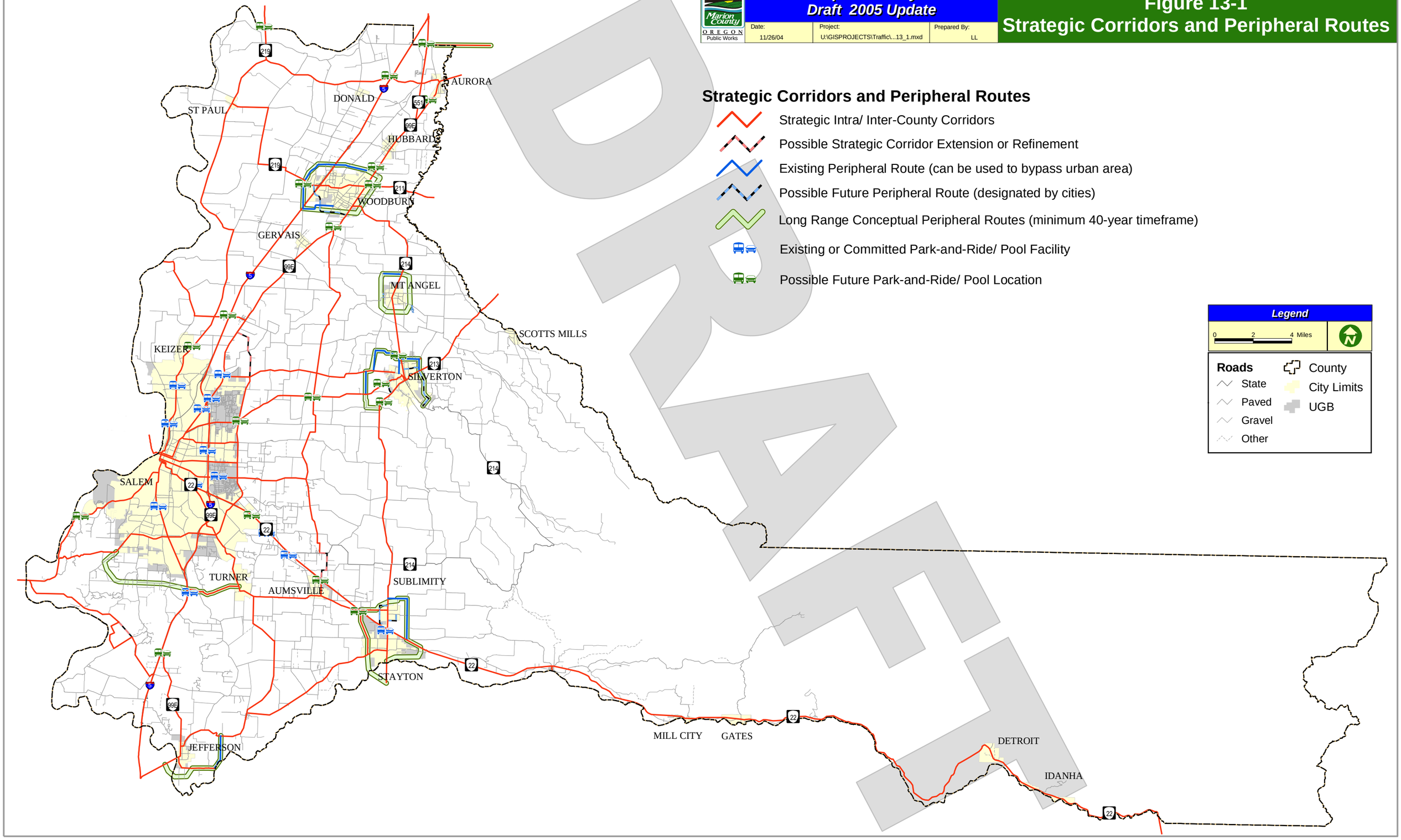
In summary, the County believes very strongly that attention to the long term is essential to enhance the far-reaching value of the Rural Transportation System Plan and ensure that strategic considerations are given the treatment they deserve without detracting from the required elements of the plan. Needless to say, conditions in the future are impossible to predict with any degree of accuracy. Any of these long-term issues may become moot or critical, depending on how the future actually unfolds. Undoubtedly, many additional issues will also surface. Transportation and land use planning can not, and should not, be separated, and how effectively we approach the challenge of coordinating them will determine the legacy we leave for the next several generations of Marion County Citizens.

Rural Transportation System Plan
Draft 2005 Update

Marion County
OREGON
Public Works

Date:	Project:	Prepared By:
11/26/04	U:\GISPROJECTS\Traffic\...13_1.mxd	LL

Figure 13-1
Strategic Corridors and Peripheral Routes



Strategic Corridors and Peripheral Routes

- Strategic Intra/ Inter-County Corridors
- Possible Strategic Corridor Extension or Refinement
- Existing Peripheral Route (can be used to bypass urban area)
- Possible Future Peripheral Route (designated by cities)
- Long Range Conceptual Peripheral Routes (minimum 40-year timeframe)
- Existing or Committed Park-and-Ride/ Pool Facility
- Possible Future Park-and-Ride/ Pool Location

Legend

0 2 4 Miles

Roads
- State
- Paved
- Gravel
- Other

- County
- City Limits
- UGB

14.0 TRANSPORTATION PLANNING RULE COMPLIANCE

As stated earlier in this plan, the Oregon Department of Land Conservation and Development (DLCD), with concurrence from ODOT, adopted Transportation Planning Rule (TPR), OAR 660 Division 12, in 1991. The TPR requires local jurisdictions with certain population estimates to prepare and adopt a Transportation System Plan that addresses the recommendations and requirements in the TPR. This section provides a list of recommendations and requirements from the TPR and how each of these were addressed in the Marion County RTSP.

	TPR RECOMMENDATIONS/REQUIREMENTS	MARION COUNTY RTSP COMPLIANCE
	Public and Inter-Agency Involvement	
X	Develop informational material.	Materials (including report text, newsletters, charts, and maps) were prepared for the public and other agencies illustrating and defining critical components of the Marion County RTSP Update.
X	Schedule informational meetings, review meetings and public hearings throughout the planning process. Involve the community.	Several meetings and an open house have been held in the development of this RTSP Update. Notices have been sent and press releases made to inform the public of the update and solicit comments for it. The draft plan has been available on the internet for public review for three months, and many comments have been received electronically and addressed in the preparation of this RTSP update. Extensive effort has also been made coordinating with individual cities and other agencies.
X	Coordinate plan with other agencies.	All of the cities and other agencies within the County were invited to attend the agency meetings. Representatives from many of the cities, as well as other County departments, MWVCOG, ODOT, and DLCD participated at the meetings. Other representatives were apprised of the process and chose not to become involved
	Review Existing Plans, Policies, Standards and Laws	
X	Review and evaluate existing comprehensive plans.	The Marion County Comprehensive Plan was reviewed and evaluated as part of the RTSP update development. Comprehensive plans of other Marion County cities were reviewed, along with the Oregon Transportation Plan and its modal sub-components (such as the passenger rail plan and the bicycle and pedestrian plan), and all other applicable plans which could be obtained by the planning team.
X	Land use analysis - existing land use/vacant lands	The County's exception areas and potential

	TPR RECOMMENDATIONS/REQUIREMENTS	MARION COUNTY RTSP COMPLIANCE
	inventory.	development impact areas were reviewed to determine where growth and development were more likely to occur. City land use plans were reviewed to discern future development of the cities and assess future transportation needs between cities.
X	Review existing ordinances - zoning, subdivision, engineering standards.	Existing County ordinances and engineering standards were reviewed for adequacy in the development of the RTSP Update. It was determined that the County should re-evaluate it's existing standards to accommodate future growth and to improve livability in urban and rural communities.
X	Review existing significant transportation studies.	Many transportation studies and plans were reviewed as part of the Marion County RTSP. These include ODOT's Oregon Transportation Plan and associated modal plans, transportation plans of individual cities and adjacent counties, airport plans, regional plans, and all other applicable plans that the planning team could obtain.
X	Review existing capital improvements programs/public facilities plans.	The Marion County capital improvement program, State transportation improvement program, local city improvement programs, and airport master plans were reviewed as part of Marion County RTSP update development.
X	Americans with Disabilities Act requirements.	ADA requirements were reviewed and recognized as part of the Marion County RTSP update development.
	Inventory Existing Transportation System	
X	Road system (number of lanes, lane widths, traffic volumes, level of service, traffic signal location and jurisdiction, pavement conditions, structure locations and conditions, functional classification and jurisdiction, truck routes, number and location of accesses, safety, substandard geometry).	An inventory of the existing road network (including geometry), traffic volumes, level-of-service, traffic control devices, pavement conditions, structure locations and conditions, functional classification, and truck routes are provided in the RTSP Update.
X	Bicycle ways (type, location, width, condition, ownership/jurisdiction).	A summary of the existing bicycle facilities is provided in the RTSP Update and reviewed in detail in the County's *Bicycle and Pedestrian System Plan* which was developed as part of the original RTSP planning effort. The County has also published a Bicycle Map, in conjunction with the City of Salem, showing bicycle facilities in the County.
X	Pedestrian ways (location, width, condition, ownership/jurisdiction).	An inventory of existing sidewalks in rural Marion County is provided in the RTSP Update.
X	Public transportation services (transit ridership,	A inventory of transit services from public and private

	TPR RECOMMENDATIONS/REQUIREMENTS	MARION COUNTY RTSP COMPLIANCE
	volumes, route, frequency, stops, fleet, intercity bus, passenger rail, special transit services).	providers was prepared by Mid-Willamette Valley Council of Governments for the original RTSP. The inventory is included in the RTSP update, along with information on CARTS and Cherriots service in rural areas of the County
X	Inter-modal and private connections.	No significant inter-modal and private carrier transportation services and/or connections are currently found in rural Marion County.
X	Air transportation.	A summary of existing air transportation facilities is provided in the RTSP update.
X	Freight rail transportation.	A summary of freight rail transportation services is provided in the RTSP update.
X	Water transportation.	A summary of water transportation services is provided in the RTSP update.
X	Pipeline transportation.	A summary of pipeline transportation services is provided in the RTSP update.
X	Environmental constraints.	Within Marion County, there are some environmental constraints affecting the development of new or improved transportation facilities. These were considered in the selection and development of recommended projects.
X	Existing population and employment.	The 2000 Census tabulated Marion County's population as 284,834 people, of which 137,444 are employed. The 2003 estimate is 295,900 people.
	Determine Transportation Needs	
X	Forecast population and employment.	Growth rates were estimated from existing population trends, an evaluation of buildable land in the rural and urban areas, and forecasts for Marion County that were developed as part of the County's Urban Growth Management Framework planning effort. This included a 2020 population projection of 359,581, and a corresponding increase in employment.
X	Determine transportation capacity needs (cumulative analysis, transportation gravity model).	Traffic volume projections have been developed for the year 2025 for Arterials, Major Collectors, State, and Interstate highways within Marion County (see Chapter 6 for methodology). Anticipated future capacity issues are identified in Chapter 8.
X	Other roadway needs (safety, bridges, reconstruction, operation/maintenance.	The RTSP update contains a list of needs for safety improvements, bridge repair and replacement, reconstruction, drainage improvements, and maintenance improvements.

	TPR RECOMMENDATIONS/REQUIREMENTS	MARION COUNTY RTSP COMPLIANCE
X	Freight transportation needs.	Deficiencies that relate to freight movement, including truck movement, rail movement, and rail crossings are addressed in the RTSP update.
X	Public transportation needs (special transportation needs, general public transit needs).	Existing rural transit service is noted in the RTSP update, with further recommendations for additional service (particularly connections between cities), express service, and other improvements that would make transit more efficient and a better option. The RTSP update also includes recommendations for ridesharing and other options besides the SOV.
X	Bicycle / Pedestrian needs.	Rural bicycle and pedestrian improvements are generally proposed in conjunction with roadway improvements that will benefit all users and primarily consist of shoulder widening. The County also proposes to provide cyclists and pedestrians with full accessibility to County's arterial/collector street system. As part of the original RTSP development, the County also developed a supplemental document entitled the *Marion County Bicycle and Pedestrian System PlanI,* which is still in effect.
	Develop and Evaluate Alternatives	
X	Update community goals and objectives.	Goals and objectives were established through input from the community, including elected officials and staff from cities and other agencies. In addition, each alternative strategy was evaluated for how well it addressed these goals and objectives.
X	Establish evaluation criteria.	Evaluation criteria were established as part of the plan development and used to evaluate alternatives.
X	Develop and evaluate alternatives (no-build system, all-build alternatives, transportation system management, transit, additions to roadway system, land use alternatives, and combination alternatives).	A set of alternatives, including 'Do Nothing', 'Build it All', 'Inter-County Focus', 'Intra-County Focus', 'Farm to Market', 'Leave the Car at Home', 'Perimeter Roads', and combined 'Intra/Inter County Mobility' alternatives were defined and evaluated. Actions to address current and future needs of Marion County were also considered in the evaluation of alternatives. It was assumed that land use in the rural areas (mainly farm and forest use) would remain relatively static.
X	Select recommended alternative.	The recommended alternative was a combination of the Intra-County focus and the Inter-County focus. This recommended alternative focuses improvements on the major roads within the County and into and out of the County. The Marion County RTSP update also includes a financially constrained plan of

TPR RECOMMENDATIONS/REQUIREMENTS		MARION COUNTY RTSP COMPLIANCE
		improvements to address existing and future needs.
Produce a Transportation System Plan		
X	Transportation goals, objectives, and policies.	Specific recommendations regarding transportation goals and policies were identified in the original RTSP, and have been updated slightly to more accurately reflect current transportation issues in this RTSP update.
X	Streets plan element (functional street classification and design standards, proposed facility improvements, access management plan, truck plan, safety improvements).	A roadway plan element is included in the RTSP update and serves as the primary component of the rural transportation system. Design standards will be reviewed and issues resolved outside of the transportation system plan. Additional work is planned to refine the roadway design standards. Proposed facility improvements (including those improving safety, and those improving freight mobility) are listed in the plan. Access management standards and other policies to protect the investment in the road system are also included.
X	Public transportation element (transit route service, transit facilities, special transit services, intercity bus and passenger rail).	Increased service through additional rural transit, more frequent rural transit, and additional park-and-ride locations is recommended as part of the RTSP update. Coordination of multiple para-transit service providers is also recommended.
X	Bikeway system element.	A bicycle element is included in the RTSP update and described in detail in the *Bicycle and Pedestrian System Plan*.
X	Pedestrian system element.	A pedestrian element is included in the RTSP update and described in detail in the *Bicycle and Pedestrian System Plan*.
X	Airport element (land use compatibility, future improvements, and accessibility, connections, or conflicts with other modes).	Master plans for the two main airports in Marion County, Aurora State Airport and McNary Field, are referenced in the RTSP update
X	Freight and passenger rail element (terminals, safety).	The RTSP update includes recommendations for continued and improved freight rail transportation, development of better transfer facilities to get freight to and from rail lines better, and recommendations for and continued and improved passenger rail transportation
X	Water transportation element (terminals).	Continuation of two ferry services is recommended in the RTSP update. Dredging of the Willamette River to allow increased barge transportation is not recommended until research can be done to determine

TPR RECOMMENDATIONS/REQUIREMENTS	MARION COUNTY RTSP COMPLIANCE
	the impacts of this activity, and dredging is also not recommended due to its high cost and relatively low benefit.
X Parking Plan, Transportation System Management Element (TSM), Transportation Demand Management (TDM) Element .	Although these elements are not required for unincorporated rural areas, the RTSP update includes recommendations for implementing TSM and TDM strategies to reduce the demand on the roadway system.

20-Year Funded Projects		Description	Cost	**Prioritization Number**
Arndt Rd.	Airport Rd.	Signal and Turn Lanes	$750,000	**48**
Cordon Rd	Pennsylvania Ave	Left turn lane on Cordon	$450,000	**43**
Ehlen Rd	Hwy 551 / Boones Ferry	Left turn lane on Ehlen	$500,000	**43**
Cordon Rd	Auburn Rd	Signal	$450,000	**39**
Cordon Rd	Herrin Rd	Left turn lane on Cordon	$500,000	**35**
Silverton Rd	Howell Prairie Rd	Signal and Turn Lanes	$750,000	**34**
Cordon Rd	Hayesville Dr	Left turn lane on Cordon	$300,000	**33**
Wheatland Rd	Brooklake Rd	Safety Project	$100,000	**32**
Ehlen Rd	Bents Rd	Realign Bents 800' to west (away from interchange)	$1,100,000	**32**
Butteville Rd	Portland & Western Railroad	Install Gates; Minor realignment	$200,000	**31**
River Rd NE	Brooklake Rd	Signal and Turn Lanes	$900,000	**31**
Hazelgreen Rd	Cordon Rd/55th Ave	Signal and Turn Lanes; Minor realignment	$900,000	**31**
Cordon Rd	State Street through Center Street	Widen to two lanes each direction	$4,600,000	**31**
Cordon Rd	Swegle Rd	Signal	$400,000	**30**
Recommended Pr				
River Rd S	BNRR/Orville Rd	Realign River Rd to reduce curve severity; convert bridge to grade crossing; improve geometry at Orville intersection	$2,800,000	**30**
Cordon Rd	Caplinger Rd (Salem UGB) to State Street	Widen to two lanes each direction with turn pockets	$3,400,000	**29**
St. Louis Rd	Portland & Western Railroad	Install Gates	$100,000	**28**
Butteville Rd	Crosby Rd	Line up Crosby Rd approaches	$150,000	**28**
Cordon Rd	Ward Dr	Left turn lane on Cordon	$400,000	**28**
Cordon Rd	Carolina Ave / Indiana Ave	Left turn lane on Cordon	$500,000	**28**
Delaney Rd	Battlecreek Bridge to Turner	Widen pavement to 32 feet	$2,000,000	**28**
Silverton Rd	64th Place	Left turn lane on Silverton; straighten skew	$600,000	**25**
Cordon Rd	Center Street through Sunnyview Road	Widen to two lanes each direction with turn pockets	$4,600,000	**25**
Boones Ferry Rd	Woodburn UGB to Crosby Rd	Widen pavement to 32 feet	$400,000	**24**
River Rd S	BNRR	Realign River Rd to reduce curve severity; convert bridge to grade crossing	$2,000,000	**24**
54th Ave	across Lake Labish	Widen to 22' plus gravel shoulders	$500,000	**23**
Delaney Rd	Battle Creek	Realignment, new bridge	$1,500,000	**23**
Cordon Rd	Sunnyview Road through Silverton Road	Widen to two lanes each direction with turn pockets	$4,600,000	**23**
Waconda Rd	Portland & Western Railroad	Install Gates	$100,000	**22**
Broadacres Rd	Portland & Western Railroad	Install Gates	$100,000	**22**
Cordon Rd	Kale St	Left turn lane on Cordon	$300,000	**22**
Silverton Rd	Salem UGB to Indigo St	Widen to two lanes each direction	$4,800,000	**22**
Bates Rd	Willamette Valley Railway	Install Gates	$100,000	**21**
Porter Rd	Willamette Valley Railway	Install Gates	$100,000	**21**
Skyline Rd	Vitae Springs Rd	Improve grade, visibility, and traffic control	$750,000	**21**

Golf Club Rd	Oregon 22 to Stayton UGB	Widen to two lanes each direction plus center turn lane	$1,500,000	**21**
Brush Creek Rd	Willamette Valley Railway	Install Gates	$100,000	**20**
Sunnyview Rd	Willamette Valley Railway	Install Gates	$100,000	**20**
McKay Rd	French Prairie Rd	Left turn lanes on McKay Rd; Possible Signal	$500,000	**20**
Brooklake Rd.	Huff Ave	Left Turn Lane and possible signal	$750,000	**20**
Jefferson-Marion Rd	Parrish Gap toStayton Rd	Widen pavement to 28 feet	$1,500,000	**20**
Silverton Rd	Indigo St to Howell Prairie	Widen to two lanes each direction	$4,700,000	**20**
McKee School Rd	Willamette Valley Railway	Install Gates	$100,000	**19**
Macleay Rd	Willamette Valley Railway	Install Gates	$100,000	**19**
Shaff Rd	Willamette Valley Railway	Install Gates	$100,000	**19**
Howell Prairie Rd	Lardon Rd / Kaufman Rd	Line up Lardon and Kaufman	$350,000	**19**
Butteville Rd	Ehlen Rd	Traffic Signal	$750,000	**19**
Hazelgreen Rd *	E of Torvend Rd	Raise roadway above flood level	$1,500,000	**19**
Brooklake Rd.	River Rd NE through I-5 interchange	Widen to two lanes each direction plus center turn lane	$3,000,000	**19**
Downs Rd	Willamette Valley Railway	Install Gates	$100,000	**18**
Mill Creek Rd	Bishop Rd / Leverman Rd	Realign some approaches	$400,000	**18**
Yergen Rd.	Donald Rd.	T-intersection	$500,000	**18**
Wintercreek Rd	Skelton Rd	Cut/fill, raise intersection	$400,000	**17**
Cascade Hwy	Evergreen Rd/School	Flatten curve	$500,000	**17**
Stayton Rd	Jefferson-Marion Rd to Stayton UGB	Widen pavement to 28 feet	$2,000,000	**17**
Vitae Springs Rd	Skyline Rd to Orville Rd	Widen to 22' plus gravel shoulders	$2,500,000	**17**
Silverton Rd	Howell Prairie to Brush Creek	Widen to two lanes each direction	$5,100,000	**17**
Hazelgreen Rd.	62nd Ave.	T-intersection	$100,000	**16**
Kaufman Rd	Willamette Valley Railway	Install Gates	$100,000	**16**
Monitor - McKee Rd	Willamette Valley Railway	Install Gates	$100,000	**16**
Delaney Rd	Parrish Gap Rd	Improve visibility	$400,000	**16**
Sublimity Rd	Chemeketa C.C	Left Turn Lane	$450,000	**16**
65th Ave	across Lake Labish	Widen to 22' plus gravel shoulders	$800,000	**16**
Mill Creek Road	Marion Rd to Aumsville UGB	Widen pavement to 28 feet	$2,000,000	**16**
Orville Rd	River Rd S to Vitae Springs Rd	Widen to 22' plus gravel shoulders	$3,000,000	**16**
Silverton Rd	Brush Creek to Silverton UGB	Widen to two lanes each direction	$4,100,000	**16**
35th Ave.	Perkins St.	Reconfigure intersection	$300,000	**15**
Mt. Angel-Gervais R	Howell Prairie Rd.	Single Cross Intersection	$400,000	**15**
State St.	63rd Ave. to Howell Prairie Rd	Widen pavement to 28 feet	$900,000	**15**
Paradise Alley	Willamette Valley Railway	Install Gates	$100,000	**14**
Talbot Rd	Burlington Northern-Santa Fe	Install Gates	$100,000	**14**
Hook Rd	Willamette Valley Railway	Install Gates	$100,000	**14**
Meridian Rd	Mt. Angel-Scotts Mills Rd	Convert Y-Intersections to T-intersections	$150,000	**14**
70th Ave	Mill Creek Rd	Move 70th to West for better turning ra	$150,000	**14**
Aumsville Hwy	Witzel Rd	Flatten vertical curves; improve visibility	$400,000	**14**
Cascade Hwy	Kaufman Rd.	Realignment	$400,000	**14**
River Rd NE	Waconda Rd	Left Turn Lanes on River Rd	$500,000	**14**
Woodburn-Hubbard	Woodburn to Hubbard	Widen pavement to 28 feet	$600,000	**14**
Butteville Rd	Parr Rd	reduce grades	$800,000	**14**
			$84,200,000	

Additional Identified Needs

Boones Ferry Rd.	Broad Acres Rd.	Flatten vert. curve, hor. realignment	$500,000	**13**
Delaney Rd	E and W of Battle Creek	Raise roadway above flood level	$500,000	**13**
Riverside Rd	BNRR Bridge	Straighten roadway; replace bridge	$1,500,000	**13**
Jefferson-Marion Rd	Parrish Gap Rd	Left turn lane on Jefferson-Marion Rd	$300,000	**12**
Hylo Rd	Champion Hill Rd	Flatten curve	$500,000	**12**
Jefferson-Marion Rd	E of Skelton Rd	Improve drainage	$500,000	**12**
Cascade Hwy	Riches Rd	Flatten and smooth curves	$600,000	**12**
Rees Hill Rd	Rainbow Dr	Move intersection	$600,000	**12**
Meridian Rd	Silverton UGB to County Line	Widen pavement to 28 feet	$1,200,000	**12**
Riverdale Rd (conne	S. River Rd	Close road	$100,000	**11**
Rainwater Ln	Willamette Valley Railway	Install Gates	$100,000	**11**
Sunnyview Rd.	Howell Prairie Rd.	Remove wing rds	$150,000	**11**
Meridian Rd.	Abiqua Rd.	T-intersection	$200,000	**11**
Skyline Rd	Cole Rd	Flatten curve	$300,000	**11**
River Rd NE	Davidson Rd	Cut/fill, raise intersection	$400,000	**11**
Riverdale Rd	Vitae Springs Rd	Vertical & horizontal realignment	$500,000	**11**
River Rd NE	1 mi W of French Prairie	Straighten curves (hor. realignment)	$600,000	**11**
Center/Hampden/Fr	Cordon Rd to 63rd Ave	Widen pavement to 32 feet	$700,000	**11**
Riverside Rd	Skyline Rd to BNRR	Widen to 22' plus gravel shoulders	$1,000,000	**11**
Hobart Rd	Mt. Angel Hwy to Hwy 214	Widen pavement to 28 feet	$1,200,000	**11**
Aumsville Hwy	Joseph St.	T-intersection	$100,000	**10**
Perkins Rd	Portland & Western Railroad	Install Gates	$100,000	**10**
Ankeny Hill Rd.	Wintel Rd.	T-intersection	$300,000	**10**
Arndt Rd.	Butteville Rd to Hwy 551	Widen pavement to 28 feet	$1,200,000	**10**
Shaw Hwy	Aumsville UGB to Hwy 214	Widen pavement to 32 feet	$600,000	**9**
Shaw Hwy	Brownell Rd	Convert to T-intersection, remove wing rds	$100,000	**9**
Mt. Angel Hwy	Hook Rd.	T-intersection	$100,000	**9**
Howell Prairie Rd.	Rambler Dr.	T-intersection	$100,000	**9**
Waconda Rd.	Howell Prairie Rd.	T-intersection, remove wing rds	$100,000	**9**
Abiqua Rd	S. of Briar Knob Lp	Install guardrail	$200,000	**9**
Meridian Rd.	Downs Rd.	T-intersection	$200,000	**9**
Woodburn-Monitor	Monitor-McKee Rd.	Traffic control	$250,000	**9**
West Stayton Rd.	Shaff Rd.	Cross intersection, hor. realignment	$300,000	**9**
Marion Rd	Shaff Rd to Mill Creek Rd	Widen pavement to 28 feet	$1,200,000	**9**
65th Ave.	Labish Ctr. Rd.	T-intersection	$100,000	**8**
West Stayton Rd.	Darley Rd	T-intersection	$100,000	**8**
54th Ave NE	Lakeside Rd	Convert to 2-way stop	$100,000	**8**
Parrish Gap Rd.	Hennies Rd.	T-intersection	$150,000	**8**
Cascade Hwy	Stadeli Ln	Bank work	$400,000	**8**
Parrish Gap Rd	Ridgeway Dr	Bank work, vegetation removal	$500,000	**8**
Meridian Rd	S of Mt. Angel-Scotts Mills	Improve drainage	$500,000	**8**
Riverside Rd	Skyline Rd	Vertical & horizontal realignment	$600,000	**8**
Liberty Rd	Cole Rd/Old Liberty Rd	Reconfigure Intersection and curve	$800,000	**8**
Parrish Gap Rd.	Summit Loop Rd. (north end)	T-intersection	$100,000	**7**
Riverdale Rd	Halls Ferry Rd	Bank work, vegetation removal	$250,000	**7**
Jory Hill Rd	O'Brien Rd	Flatten curve	$300,000	**7**
Crooked Finger Rd	McKillop Rd	T-int., bank work, vert. realignment	$400,000	**7**
Lardon Rd	near 55th Ave	Realign curves	$500,000	**7**
Shaff Road	Marion Rd to West Stayton Rd	Widen pavement to 28 feet	$1,500,000	**7**
River Rd S *	BNRR to Independence bridge	Raise roadway above flood level	$2,000,000	**7**
			$24,600,000	

Other issues not listed as recommended projects or identified needs

Champoeg Rd.	Case Rd.	T-intersection	$150,000	**6**
Hook Rd.	Saratoga Dr.	T-intersection	$150,000	**6**
Wintel Rd.	Jorgenson Rd.	T-intersection	$150,000	**6**
Winter Creek Rd.	Parrish Gap Rd.	T-intersection	$150,000	**6**
72nd Ave.	Labish Ctr. Rd.	T-intersection	$200,000	**6**
Parrish Gap Rd	Cook Rd	Flatten curve	$250,000	**6**
Parrish Gap Rd	Vaughn Rd	T-intersection, flatten curve	$500,000	**6**
Wheatland Rd	By Matheny Rd	Improve drainage	$600,000	**6**
Parrish Gap Rd	1.6 mi S of Delaney	Reduce curve sharpness	$800,000	**6**
River Rd N	S of Brooklake Rd	Improve drainage	$1,000,000	**6**
Marion Rd	Stayton Rd to Woodpecker Dr	Widen pavement to 28 feet	$1,000,000	**6**
State St	95th Ave	Bank work	$250,000	**5**
Riverside Dr.	Mission Rd.	Cross int., remove wing roads	$100,000	**4**
Shaw Hwy	Smith Rd	T-intersection, bank work for curves	$150,000	**4**
South Abiqua Rd	Davis Creek Rd	Bank work, vegetation removal	$300,000	**4**
Parrish Gap Rd	Valley View Rd	Curve improvements (inside)	$400,000	**4**
Liberty Rd	Bunker Hill Rd	Bank work, vegetation removal	$400,000	**4**
Skyline Rd	Newberry St (Inwood)	Flatten curve	$500,000	**4**
Wheatland Rd	Jason Lee Rd	Straighten curves (hor. realignment)	$600,000	**4**
Cascade Hwy	State St	Flatten curve	$1,000,000	**4**
West Stayton Rd.	Stayton Rd to Aumsville	Widen pavement to 28 feet	$1,200,000	**4**
Brooklake Road	River Rd to I-5	Improve drainage	$1,500,000	**4**
Windsor Island Rd	90 - curves	Impr. sight distance across curves	$400,000	**3**
Fern Ridge Rd	Basl Hill Rd	Bank work, vegetation removal	$400,000	**3**
Witzel Rd	Lipscomb Rd	Flatten curve	$500,000	**3**
Riverdale Rd	Sawmill Rd	Bank work, vegetation removal	$400,000	**2**
Hunsaker Rd	Just west of Marion Rd	Improve drainage	$400,000	**2**
Wheatland Rd.	Ravena Dr.	T-intersection	$500,000	**2**
Marion Rd	Vicinity Mill Creek	Raise roadway above flood level	$1,000,000	**2**
54th Ave	Vicinity Labish ditch	Raise roadway above flood level	$1,000,000	**2**
Torvend Rd	Just north of Hazelgreen Rd	Raise roadway above flood level	$400,000	**1**
Ankeny Hill Rd	Vicinity Miller Creek	Improve drainage	$800,000	**1**
65th Ave	Vicinity Labish ditch	Raise roadway above flood level	$1,000,000	**1**
Olmstead Rd	Vicinity Ryan Creek	Improve drainage	$300,000	**0**
Ray Bell Rd	Vic ditch from Skookum Lake	Improve drainage	$400,000	**0**
Runcorn Rd	Various locations along road	Improve drainage	$400,000	**0**
Evans Valley Rd	Madrona Heights Rd	Flatten curve	$500,000	**0**
Valley View Rd	Picard Rd	Flatten curve	$500,000	**0**
Abiqua Rd NE	Various locations along road	Improve drainage	$600,000	**0**
Parrish Gap Rd	Over Sidney ditch	Improve drainage	$600,000	**0**
Gilmour Rd	Approx. 600' N of Talbot Rd	Raise roadway above flood level	$300,000	**-1**
86th Avenue NE *	Vicinity Camas Creek	Raise roadway above flood level	$500,000	**-1**
West Stayton Rd	South of Mill Creek	Improve drainage	$800,000	**-1**
Wintel Rd	Vicinity Sidney Ditch	Raise roadway above flood level	$600,000	**-2**
Champoeg Rd	Vic ditch from Skookum Lake	Improve drainage	$600,000	**-2**
Champoeg Rd	Vicinity Ryan Creek	Improve drainage	$600,000	**-2**
Fargo Rd	Vicinity Deer Creek	Improve drainage	$600,000	**-2**
Mahony Rd	Over ditches from W Fk Cham	Improve drainage	$600,000	**-2**
Wabash Rd	2000' east of Hwy 99E	Improve drainage	$600,000	**-2**
70th Avenue SE	Vicinity Mill Creek	Improve drainage	$600,000	**-2**
Talbot Rd *	West of Marlatt Rd	Raise roadway above flood level	$600,000	**-2**
Brush Creek Rd	Vicinity Silver Creek	Raise roadway above flood level	$1,000,000	**-2**
Concomly Rd	Various locations along road	Improve drainage	$500,000	**-3**
Leary Rd	Various locations along road	Improve drainage	$600,000	**-3**

Trout St	West of Wheatland Rd	Improve drainage	$600,000	**-3**
South Abiqua Rd	1.5 mi E of Hwy 213	Improve drainage	$800,000	**-3**
N. Fork Rd	E of Little North Fork Park	Improve drainage	$1,000,000	**-3**
Monitor-McKee Rd	Vicinity Pudding River	Raise roadway above flood level	$1,000,000	**-3**
Wipper Rd	Vic Mill Creek & N of Hennies	Raise roadway above flood level	$800,000	**-4**
Champoeg Rd	Vic and W of Mission Creek	Improve drainage	$800,000	**-4**
75th Avenue NE *	Vicinity Labish Ditch	Raise roadway above flood level	$1,000,000	**-4**
Fellers Rd	Vicinity Senecal Creek	Improve drainage	$800,000	**-5**
Wagon Rd	Vicinity Butte Creek	Raise roadway above flood level	$800,000	**-5**
Windsor Island Rd	Various locations along road	Improve drainage	$800,000	**-5**
4th Avenue *	Over ditch	Raise roadway above flood level	$800,000	**-6**
Keene Rd	Various locations along road	Improve drainage	$800,000	**-6**
Elliot Prairie Rd *	Vicinity Butte Creek	Raise roadway above flood level	$1,500,000	**-6**
Waconda Rd	Various from Wheatland Rd to	Improve drainage	$1,000,000	**-7**
Nusom Rd *	Vicinity Abiqua River	Raise roadway above flood level	$1,500,000	**-8**
Horseshoe Lake Rd	Vicinity Horseshoe Lake	Improve drainage	$1,000,000	**-9**
Sidney Rd	N of wildlife refuge	Raise roadway above flood level	$1,500,000	**-9**
Riverside Rd	Along Willamette River	Raise roadway above flood level	$800,000	**-11**
Waypark Rd *	Vicinity Pudding River	Raise roadway above flood level	$1,200,000	**-11**
Riverside Dr NE	Hwy 219 to Blanchet Rd	Widen pavement to 28 feet	$2,000,000	**-11**
			$48,450,000	

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
1	S Main St	Jefferson	Jefferson Hwy	Begin sidewalk (left)	0	0.06	0.06	4700	0.23	B	2		22			Asph		50	Fair	Urb. Arterial		
	S Main St	Jefferson	Begin sidewalk (left)	Greenwood Dr	0.06	0.12	0.06	4600	0.22	B	2		22			Asph		50	Fair	Urb. Arterial	X	
	S Main St	Jefferson	Greenwood Dr	Jefferson-Scio Dr	0.12	0.54	0.42	4000	0.19	B	2		22			Asph		50	Fair	Urb. Arterial		
	Jefferson-Scio Dr SE		S Main St	Jefferson City Limits (Ahd)	0.54	0.64	0.10	3700	0.19	B	2		22			Asph		50	Good	Maj. Collector		
	Jefferson-Scio Dr SE	Jefferson	Jefferson City Limits (Ahd)	Jefferson City Limits (Bk)	0.64	0.81	0.17	3300	0.17	B	2		22			Asph		50	Good	Urb. Maj. Collector		
	Jefferson-Scio Dr SE		Jefferson City Limits (Bk)	Jefferson UGB	0.81	0.92	0.11	3100	0.16	B	2		22			Asph		50	Good	Urb. Maj. Collector		
	Jefferson-Scio Dr SE		Jefferson UGB	Linn Co. Line	0.92	2.37	1.45	2500	0.13	B	2		22			Asph		50	Good	Maj. Collector		
2	Ankeny Hill Rd SE		Liberty Rd S	Wintel Rd S	0	2.39	2.39	800	0.04	A	2	2	20	2	Grav	Asph	Grav	40 - 50	Good	Min. Collector		
	Ankeny Hill Rd SE		Wintel Rd S	Jefferson Hwy	2.39	3.44	1.05	1150	0.06	A	2		20			Asph		50	Good	Min. Collector		
3	Marion Rd SE		Stayton Rd	Mac Robins Ln SE	0	2.31	2.31	1170	0.05	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Marion Rd SE		Mac Robins Ln SE	Shaff Rd SE	2.31	4.4	2.09	1550	0.06	A	2	5	28	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Marion Rd SE		Shaff Rd SE	Bear Lane SE	4.4	6.03	1.63	1840	0.09	A	2	5	21	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Marion Rd SE		Bear Lane SE	Mill Creek Rd SE	6.03	7.29	1.26	1840	0.10	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
4	Brooklake Rd NE		SPRR Xing (Brooks)	Hwy 99E	0	0.27	0.27	6250	0.29	C	2		34			Asph		60	Very Good	Co. Arterial		
5	Douglas St NE	Gervais	SPRR Xing	Hwy 99E	0	0.49	0.49	2800	0.09	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Urb. Min. Collector		
6	Waconda Rd NE		Hwy 99E	Howell Prairie	0	3.35	3.35	790	0.04	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
7	St. Louis Rd		French Prairie Rd	Manning Rd	0	1.12	1.12	830	0.04	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Min. Collector		
	St. Louis Rd		Manning Rd	Approaching Frontage Rd	1.12	2.52	1.40	1100	0.06	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Min. Collector		
	St. Louis Rd		Approaching Frontage Rd	Jensen Rd	2.52	2.78	0.26	1100	0.06	A	2	8	20	8	Grav	Asph	Grav	50	Very Good	Min. Collector		
	St. Louis Rd		Jensen Rd	Gervais City Limits	2.78	3.53	0.75	1100	0.06	A	2	4	20	4	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Douglas Ave	Gervais	Gervais City Limits	SPRR Xing	3.53	3.75	0.22	1300	0.04	A	2	5	32	5	Asph	Asph	Asph	50	Very Good	Urb. Min. Collector		
8	J St NE	Hubbard	SPRR Xing	3rd St	0.17	0.19	0.02	300	0.01	A	2	4	20	4	Grav	Asph	Grav	60		Urb. Maj. Collector		
	J St NE	Hubbard	3rd St	Alley	0.19	0.22	0.03	1800	0.09	A	2	4	20	4	Grav	Asph	Grav	60		Urb. Maj. Collector	X	X
	J St NE	Hubbard	Alley	4th St	0.22	0.25	0.03	1800	0.09	A	2	4	20	4	Grav	Asph	Grav	60		Urb. Maj. Collector	X	
	J St NE	Hubbard	4th St	5th St	0.25	0.3	0.05	1750	0.09	A	2	0	20	4		Asph	Asph	60		Urb. Maj. Collector		
	J St NE	Hubbard	5th St	Hubbard City Limits	0.3	0.43	0.13	1700	0.09	A	2	2	20	2	Grav	Asph	Grav	60		Urb. Maj. Collector		
	Broadacres Rd NE		Hubbard City Limits	Boones Ferry Rd NE	0.43	1.03	0.60	1625	0.06	A	2	5	24	5	Grav	Asph	Grav	60	Fair	Maj. Collector		
	Broadacres Rd NE		Boones Ferry Rd NE	Frontage Rd	1.03	1.87	0.84	1070	0.05	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Broadacres Rd NE		Frontage Rd	Overcrossing I-5	1.87	2.05	0.18	1070	0.04	A	2	8	24	8	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Broadacres Rd NE		Overcrossing I-5	Butteville Rd NE	2.05	3.17	1.12	1070	0.05	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	St. Paul Hwy NE		Butteville Rd NE	Hwy 219	3.17	7.1	3.93	870	0.04	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
	French Prairie Rd NE		Hwy 219	McKay Rd	7.1	9.34	2.24	1650	0.06	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Min. Collector		
	French Prairie Rd NE		McKay Rd	Champoeg Rd NE	9.34	10.5	1.19	500	0.02	A	2	4	30	4	Asph	Asph	Asph	60	Very Good	Min. Collector		

Appendix B: Marion County Rural Roadway Inventory

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Road					Milepoint	Length	2003	2003	2003	No.	Widths			Type			R/W	Pavement	2003 Functional	Sidewalks	
No.	Road Name	City	From	To	From To	Segment	Volumes	V/C	LOS	Lanes	L Sh.	Tr. Surf.	R Sh.	L Sh.	Tr. Surf.	R Sh.	Width	Cond.	Class	Lt.	Rt.
9	Whiskey Hill Rd NE		Hubbard City Limits	Fobert Rd NE	0.17 - 1.97	1.80	2600	0.12	B	2	4	22	4	Grav	Asph	Grav	60	Good	Maj. Collector		
	Whiskey Hill Rd NE		Fobert Rd NE	Clackamas Co. Line	1.97 - 2.63	0.66	2300	0.11	A	2	4	22	4	Grav	Asph	Grav	60	Good	Maj. Collector		
10	Main St	Donald	Matthieu Ln	Ehlen St	0 - 0.06	0.06	1600	0.09	A	2		20			Asph		60		Urb. Min. Collector	X	X
	Main St	Donald	Ehlen St	End sidewalk (left)	0.06 - 0.15	0.09	1600	0.09	A	2		20			Asph		80		Urb. Min. Collector	X	
	Main St	Donald	End sidewalk (left)	Donald City Limits	0.15 - 0.39	0.24	1600	0.09	A	2		20			Asph		80		Urb. Min. Collector		
	Donald Rd NE		Donald City Limits	Begin I-5 Overxing	0.39 - 0.91	0.52	1000	0.05	A	2	8	20	8	Grav	Asph	Grav	80	Very Good	Min. Collector		
	Donald Rd NE		Begin I-5 Overxing	End I-5 Overxing	0.91 - 0.97	0.06	1000	0.04	A	2		40		Conc	Asph	Conc	80	Very Good	Min. Collector		
	Donald Rd NE		End OverXing	Grim Rd NE	0.97 - 2.07	1.10	1100	0.06	A	2	2	20	2	Grav	Asph	Grav	80	Very Good	Min. Collector		
	Donald Rd NE		Grim Rd NE	Boones Ferry Rd NE	2.07 - 2.93	0.86	750	0.04	A	2	2	22	2	Grav	Asph	Grav	80	Very Good	Min. Collector		
	Boones Ferry Rd NE		Donald Rd NE	Ehlen Rd NE	2.93 - 3.62	0.69	2600	0.13	B	2	2	22	2	Grav	Asph	Grav	80	Very Good	Min. Collector		
10 A	Donald Loop Rd NE		Donald Rd NE	Dead End	0 - 0.36	0.36	20	0.00	A	2	4	18	4	Grav	Asph	Grav	40	Very Poor	Local		
11	Boones Ferry Rd NE		Ehlen Rd NE	Arndt Rd NE	0 - 2.05	2.05	1000	0.04	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Local		
	Arndt Rd		Boones Ferry Rd NE	Klupenger Rd	2.05 - 3.25	1.20	2500	0.11	A	2	3	22	3	Grav	Asph	Grav	60	Good	Maj. Collector		
12	Champoeg Rd NE		Hwy 219	Timbered Bridge	0 - 2.24	2.24	1350	0.05	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Local	X	
	Champoeg Rd NE		Timbered Bridge	Campoeg Park Entrance	2.24 - 2.58	0.34	1220	0.05	A	2	3	32	3	Grav	Asph	Grav	60	Very Good	Local		
	Champoeg Rd NE		Champoeg Park Entrance	Case Rd NE	2.58 - 3.5	0.92	1180	0.05	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Local		
	Case Rd NE		Champoeg Rd NE	Yergen Rd NE	3.5 - 4.86	1.36	470	0.02	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Local		
13	Champoeg Rd NE		Hwy 219	Ray Bell Rd NE	0 - 0.18	0.18	800	0.05	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Local		
	Champoeg Rd NE		Ray Bell Rd NE	Riverside Dr NE	0.18 - 1.77	1.59	470	0.03	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Local		
15	Woodburn-Monitor Rd N		Hwy 214	Bonney Rd	0 - 0.14	0.14	1030	0.05	A	2	3	20	3	Grav	Asph	Grav	50	Poor	Maj. Collector		
	Woodburn-Monitor Rd N		Bonney Rd	Monitor-McKee Rd	0.14 - 1.71	1.57	1000	0.05	A	2		20			Asph		50	Poor	Maj. Collector		
	Woodburn-Monitor Rd N		Monitor-McKee Rd	Begin sidewalk	1.71 - 2.07	0.36	1500	0.08	A	2		20			Asph		50	Poor	Maj. Collector		
	Woodburn-Monitor Rd N		Begin sidewalk	Meridian Rd	2.07 - 2.11	0.04	1600	0.09	A	2		20			Asph		50	Poor	Maj. Collector	X	X
	Woodburn-Monitor Rd N		Meridian Rd	End sidewalk	2.11 - 2.14	0.03	2670	0.15	B	2		20			Asph		50	Poor	Maj. Collector	X	
	Woodburn-Monitor Rd N		End sidewalk	Begin bridge	2.14 - 2.21	0.07	2670	0.15	B	2		20			Asph		50	Poor	Maj. Collector		
	Woodburn-Monitor Rd N		Begin bridge	End bridge	2.21 - 2.23	0.02	2670	0.15	B	2		20			Asph		50	Poor	Maj. Collector		
15 A	Woodburn-Monitor Rd N		Hwy 214	Woodburn-Monitor Rd NE	0 - 0.18	0.18	200	0.01	A	2	6	22	6	Grav	Asph	Grav	50		Local		
15 B	Woodburn-Monitor Rd N		Woodburn-Monitor Rd NE	Dead End	0 - 0.11	0.11	150	0.01	A	2	6	20	6	Grav	Asph	Grav	50		Local		
17	E. College Rd NE		Mt. Angel City Limits	Meridian Rd	0.85 - 3.04	2.19	1030	0.05	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Mt. Angel-Scotts Mills Rd		Meridian Rd	Hwy 213	3.04 - 4.55	1.51	2140	0.10	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel-Scotts Mills Rd		Hwy 213	Scotts Mills City Limits	4.55 - 6.92	2.37	1870	0.09	A	2	5	24	5	Grav	Asph	Grav	60	Good	Maj. Collector		
	3rd St NE	Scotts Mil	Scotts Mills City Limits	Begin sidewalk (right)	6.92 - 7.15	0.23	1630	0.09	A	2	2	20	2	Grav	Asph	Grav	60		Urb. Maj. Collector		
	3rd St NE	Scotts Mil	Begin sidewalk (right)	Begin sidewalk (left)	7.15 - 7.17	0.02	1530	0.08	A	2	2	20	2	Grav	Asph	Grav	60		Urb. Maj. Collector		X

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	3rd St NE	Scotts Mil	Begin sidewalk (left)	Grandview Ave	7.17	7.25	0.08	1360	0.08	A	2	2	20	2	Grav	Asph	Grav	60		Urb. Maj. Collector	X	X
	3rd St NE	Scotts Mil	Grandview Ave	Clackamas Co. Line	7.25	7.29	0.04	1030	0.06	A	2	2	20	2	Grav	Asph	Grav	60		Urb. Maj. Collector		
18	Mt. Angel Hwy NE		Hazelgreen Rd	Hobart Rd	0	1.07	1.07	3100	0.13	B	2	3	28	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel Hwy NE		Hobart Rd	Nusom Rd	1.07	1.9	0.83	3200	0.13	B	2	3	28	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel Hwy NE		Nusom Rd	Downs Rd	1.9	2.11	0.21	3420	0.14	B	2	3	28	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel Hwy NE		Downs Rd	Hook Rd	2.11	2.9	0.79	3000	0.12	B	2	3	28	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel Hwy NE		Hook Rd	Mt. Angel City Limits	2.9	3.47	0.57	2400	0.10	A	2	3	28	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
20	Liberty Rd S		Bates Rd	Salem Urban Boundary	0	0.75	0.75	3200	0.13	B	2	5	32	5	Asph	Asph	Asph	60 - 70	Very Good	Maj. Collector		
21	Sunnyview Rd NE		Cordon Rd NE	552 ft E of Cordon Rd	0.95	1.06	0.11	3120	0.12	B	2	5	42	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Sunnyview Rd NE		552 ft E of Cordon Rd	63rd Ave NE	1.06	2.42	1.36	2780	0.14	B	2	3	21	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Sunnyview Rd NE		63rd Ave NE	Howell Prairie Rd	2.42	4.63	2.21	1570	0.08	A	2	3	21	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Sunnyview Rd NE		Howell Prairie Rd	SPRR Xing	4.63	4.98	0.35	1100	0.06	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
21 A	Sunnyview Rd NE (Old)		Sunnyview Rd NE	Cable Gate	0	0.22	0.22	20	0.00	A	2	1	16	1	Grav	Asph	Grav	60	Very Poor	Local		
22	State St		Cordon Rd	63rd Ave NE	1.39	2.68	1.29	4880	0.17	B	2	5	32	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	State St		63rd Ave NE	Howell Prairie Rd	2.68	5.04	2.36	3300	0.15	B	2	6	22	6	Grav	Asph	Grav	60 - 80	Very Good	Co. Arterial		
	State St		Howell Prairie Rd	Cascade Hwy SE	5.04	9.73	4.69	1000	0.07	A	2		20			Asph		50 - 60	Good	Min. Collector		
22 A	State St (Old Align)		State St	State St	0	0.22	0.22	10	0.00	A	2		16			Asph		50		Local		
22 B	State St (Old Align)		State St	State St	0	0.2	0.20	10	0.00	A	2		16			Asph		50		Local		
23	Macleay Rd SE		Cordon Rd SE	Begin 5' Shoulder	1.64	1.67	0.03	3720	0.17	B	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Macleay Rd SE		Begin 5' Shoulder	Rippling Brook Dr SE	1.67	3.09	1.42	2000	0.09	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Macleay Rd SE		Riipling Brook Dr SE	82nd Ave SE	3.09	4.91	1.82	1520	0.09	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Macleay Rd SE		82nd Ave SE	Howell Prairie Rd	4.91	5.55	0.64	740	0.04	A	2	5	22	5	Grav	Asph	Grav	60 - 80	Very Good	Min. Collector		
	Howell Prairie Rd SE		Macleay Rd SE	90 degree curve	5.55	7.58	2.03	740	0.04	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd SE		90 degree curve	Hwy 214	7.58	8.2	0.62	600	0.03	A	2	2	22	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
24	Wheatland Rd NE		Keizer City Limits	Trout St N	4.62	6.55	1.93	2050	0.07	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Wheatland Rd NE		Trout St N	Matheny Rd NE	6.55	8.82	2.27	1500	0.07	A	2	3	28	3	Dirt	Asph	Dirt	60	Very Good	Maj. Collector		
	Matheny Rd NE		Wheatland Rd NE	Bridge over slough	8.82	10.1	1.26	700	0.04	A	2	3	22	3	Dirt	Asph	Dirt	50	Good	Min. Collector		
	Matheny Rd NE		Bridge over slough	River Rd NE	10.1	12	1.88	720	0.04	A	2	4	22	4	Dirt	Asph	Dirt	50	Good	Min. Collector		
25	Battle Creek Rd SE		Delaney Rd SE	Deer Lake Ct	0	0.67	0.67	1000	0.06	A	2	4	22	4	Grav	Asph	Grav	40	Very Good	Maj. Collector		
	Battle Creek Rd SE		Deer Lake Ct	Wiltsey St SE	0.67	2.03	1.36	1800	0.10	A	2	4	22	4	Grav	Asph	Grav	40	Very Good	Maj. Collector		
26	Silverton Rd NE		Cordon Rd NE	Lardon	1.61	1.73	0.12	10500	0.34	C	2	5	48	5	Asph	Asph	Asph	50	Good	Co. Arterial		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Silverton Rd NE		Lardon	72nd Ave	1.73	4.33	2.60	10500	0.34	C	2	5	32	5	Asph	Asph	Asph	50	Good	Co. Arterial		
	Silverton Rd NE		72nd Ave	Howell Prairie Rd	4.33	5.95	1.62	10500	0.34	C	2	5	32	5	Asph	Asph	Asph	50	Good	Co. Arterial		
	Silverton Rd NE		Howell Prairie Rd	Shannon Rd NE	5.95	6.37	0.42	10500	0.34	C	2	5	34	5	Asph	Asph	Asph	50	Very Good	Co. Arterial		
	Shannon Rd NE		Silverton Rd NE	Hazelgreen Rd NE	6.37	7.49	1.12	220	0.01	A	2	4	20	4	Grav	Asph	Grav	60	Good	Local		
	Hazelgreen Rd NE		Shannon Rd NE	Brush Creek Rd	7.49	9.55	2.06	3900	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Hazelgreen Rd NE		Brush Creek Rd	Mt. Angel Hwy	9.55	9.95	0.40	5300	0.20	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Pine St NE		Mt. Angel Hwy	Silverton UGB	9.95	10.5	0.53	3300	0.13	B	2	3	22	3	Asph	Asph	Asph	60		Co. Arterial		
	Pine St NE		Silverton UGB	Silverton City Limits	10.5	10.9	0.46	3500	0.14	B	2	3	22	3	Asph	Asph	Asph	60		Urb. Arterial		
	Pine St NE		Silverton City Limits	End County Rd	10.9	11.1	0.11	3900	0.19	B	2	4	20	4	Grav	Asph	Grav	60		Urb. Arterial		
26 A	Indigo St NE		Silverton Rd NE	76th Ave NE	0	0.96	0.96	160	0.01	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Local		
	76th Ave NE		Indigo St NE	Silverton Rd NE	0.96	1.2	0.24	200	0.01	A	2	2	19	2	Grav	Asph	Grav	60	Very Good	Local		
27	N Third St	Turner	Mill Creek Bridge	End bridge	0	0.03	0.03	5000	0.18	B	2	4	24	4	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	N Third St	Turner	End bridge	Ash St	0.03	0.04	0.01	5000	0.19	B	2	4	24	4	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	N Third St	Turner	Ash St	Delaney Rd	0.04	0.09	0.05	5000	0.19	B	2	4	24	4	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		X
	N Third St	Turner	Delaney Rd	Turner City Limits	0.09	0.97	0.88	4600	0.17	B	2	4	24	4	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	Turner Rd SE		Turner City Limits	Salem City Limits	0.97	1.74	0.77	4400	0.16	B	2	4	32	4	Asph	Asph	Asph	60	Very Good	Co. Arterial		
28	Mill Creek Rd SE	Turner	Denver St	Witzel Rd SE	0	0.28	0.28	4800	0.20	B	2	6	24	6	Grav	Asph	Grav	60		Urb. Co. Arterial		
	Mill Creek Rd SE		Witzel Rd SE	Marion Rd SE	0.28	0.5	0.22	4600	0.19	B	2	6	24	6	Grav	Asph	Grav	60		Co. Arterial		
	Mill Creek Rd SE		Marion Rd SE	Aumsville City Limits	0.5	3.4	2.90	2700	0.12	A	2	6	22	6	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mill Creek Rd SE	Aumsville	Aumsville City Limits	11th St	3.4	3.6	0.20	2800	0.13	B	2	6	22	6	Grav	Asph	Grav	60	Very Good	Urb. Co. Arterial		
	Main St	Aumsville	11th St	10th St	3.6	3.65	0.05	4500	0.15	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	Main St	Aumsville	10th St	9th St	3.65	3.7	0.05	4600	0.15	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	Main St	Aumsville	9th St	W Stayton Rd	3.7	3.75	0.05	4700	0.15	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	Main St	Aumsville	W Stayton Rd	7th St	3.75	3.8	0.05	5200	0.17	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Main St	Aumsville	7th St	6th St	3.8	3.84	0.04	5200	0.17	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Main St	Aumsville	6th St	5th St	3.84	3.89	0.05	5100	0.17	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Main St	Aumsville	5th St	4th St	3.89	3.94	0.05	5000	0.17	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Main St	Aumsville	4th St	3rd St	3.94	3.99	0.05	4900	0.16	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Main St	Aumsville	3rd St	SPRR Xing	3.99	4.12	0.13	4800	0.16	B	2	5	34	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		X
28 A	(Old Alignment)	Aumsville	Mill Creek Rd SE	Porter-Boone Park	0	0.12	0.12	50	0.00	A	2	6	24	6	Asph	Asph	Asph	60		Urb. Local		
29	Mill Creek Rd SE	Aumsville	SPRR Xing	Aumsville City Limits	0	0.11	0.11	2900	0.09	A	2	5	33	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	Mill Creek Rd SE		Aumsville City Limits	Bishop Rd SE	0.11	0.55	0.44	2700	0.09	A	2	5	33	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	Mill Creek Rd SE		Bishop Rd SE	Golf Club Rd	0.55	2.16	1.61	3400	0.11	A	2	5	33	5	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Golf Club Rd		Mill Creek Rd	Sublimity Rd SE	2.16	2.3	0.14	8000	0.26	C	2	5	34	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Sublimity Rd SE		Golf Club Rd	Natalie Ln	2.3	2.5	0.20	3400	0.12	B	2	3	58	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Sublimity Rd SE		Natalie Ln	Sublimity City Limits	2.5	3.25	0.75	3500	0.13	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Starr St	Sublimity	Sublimity City Limits	Hartman Meadows	3.25	3.33	0.08	3600	0.13	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Starr St	Sublimity	Hartman Meadows	NW Downy St	3.33	3.5	0.17	3800	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	Starr St	Sublimity	NW Downy St	NW Crater St	3.5	3.55	0.05	3900	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Starr St	Sublimity	NW Crater St	NW Parker St	3.55	3.59	0.04	4000	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Starr St	Sublimity	NW Parker St	NW Johnson St	3.59	3.64	0.05	4100	0.15	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		X
	Starr St	Sublimity	NW Johnson St	N Center St	3.64	3.69	0.05	4200	0.15	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		X
30	1st Ave N	Stayton	Washington St	Regis St	0	0.5	0.50	13500	0.51	D	2	4	24	4	Asph	Asph	Asph	60	Very Poor	Urb. Arterial	X	X
	1st Ave N	Stayton	Regis St	Shaff Rd SE	0.5	0.63	0.13	12500	0.47	D	2	4	24	4	Asph	Asph	Asph	60	Very Poor	Urb. Arterial		X
	Cascade Hwy SE		Shaff Rd SE	Hwy 22 UnderXing	0.63	1.14	0.51	12100	0.40	D	2	8	31	2	Asph	Asph	Grav	60	Poor	Urb. Arterial		
	Cascade Hwy SE	Sublimity	Hwy 22 UnderXing	N Center St	1.14	1.55	0.41	8000	0.27	C	2	8	31	2	Asph	Asph	Grav	60	Poor	Urb. Co. Arterial		
	N Center St	Sublimity	Cascade Hwy SE	Sublimity City Limits (Ahd)	1.55	1.63	0.08	8000	0.27	C	2	8	45	2	Asph	Asph	Grav	60	Poor	Urb. Co. Arterial		
	N Center St	Sublimity	Sublimity City Limits (Ahd)	Division St	1.63	1.78	0.15	8400	0.38	C	2		48	6		Asph	Grav	60		Urb. Co. Arterial	X	
	N Center St	Sublimity	Division St	Church St	1.78	1.94	0.16	8800	0.39	C	2		48	6		Asph	Grav	60		Urb. Co. Arterial	X	
	N Center St	Sublimity	Church St	Denny St	1.94	1.99	0.05	8400	0.38	C	2		48	6		Asph	Grav	60		Urb. Co. Arterial	X	X
	N Center St	Sublimity	Denny St	Main St	1.99	2.05	0.06	7500	0.34	C	2		48	6		Asph	Grav	60		Urb. Co. Arterial	X	X
	N Center St	Sublimity	Main St	Starr St	2.05	2.13	0.08	6500	0.30	C	2		48	6		Asph	Grav	60		Urb. Co. Arterial	X	X
31	E Washington St	Stayton	1st St	N 3rd Ave	0	0.1	0.10	6200	0.27	C	2		40			Asph		60	Good	Urb. Arterial	X	X
	E Washington St	Stayton	N 3rd Ave	N 6th Ave	0.1	0.26	0.16	5600	0.25	C	2		40			Asph		60	Good	Urb. Arterial	X	X
	N 6th Ave	Stayton	E Washington St	Jefferson St	0.26	0.31	0.05	5000	0.22	B	2		40			Asph		60	Good	Urb. Arterial	X	X
	Jefferson St	Stayton	N 6th Ave	N 10th Ave	0.31	0.55	0.24	4600	0.21	B	2		40			Asph		60	Good	Urb. Arterial	X	X
	N 10th Ave	Stayton	Jefferson St	E Santiam St	0.55	0.61	0.06	3900	0.17	B	2		50			Asph		60	Good	Urb. Arterial	X	
	E Santiam St	Stayton	N 10th Ave	Stayton City Limits	0.61	1.31	0.70	3400	0.11	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Urb. Collector		
	Old Mehama Rd SE		Stayton City Limits	Stayton UGB	1.31	2.14	0.83	2400	0.09	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Maj. Collector		
	Old Mehama Rd SE		Stayton UGB	Hwy 22	2.14	2.33	0.19	2200	0.10	A	2	3	20	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Old Mehama Rd SE		Hwy 22	Ferry Rd SE	2.33	7.27	4.94	500	0.02	A	2	3	20	3	Grav	Asph	Grav	60	Good	Local		
	Ferry Rd SE		Old Mehama Rd	Lyons UGB	7.27	8.73	1.46	350	0.02	A	2	3	19	3	Grav	Asph	Grav	60	Good	Local		
	Ferry Rd SE		Lyons UGB	Hwy 226	8.73	8.9	0.17	850	0.05	A	2	3	19	3	Grav	Asph	Grav	60	Good	Urb. Local		
32	W Stayton Rd SE		SPRR Xing	Stayton Rd SE	0	0.78	0.78	1100	0.05	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Stayton Rd SE		W Stayton Rd SE	Stayton City Limits	0.78	2.41	1.63	3500	0.15	B	2	5	22	5	Grav	Asph	Grav	60	Very Good	Co. Arterial		
	Stayton Rd SE		Stayton City Limits	Wilco Rd SE	2.41	2.74	0.33	3800	0.17	B	2	5	22	5	Grav	Asph	Grav	60	Very Good	Urb. Collector		
34	Cascade Hwy NE		Sunnyview Rd	Kaufman Rd	0	1.82	1.82	3600	0.17	B	2	3	28	3	Asph	Asph	Apsh	60	Very Good	Co. Arterial		
	Cascade Hwy NE		Kaufman Rd	Paradise Alley	1.82	3.98	2.16	4200	0.20	B	2	3	28	3	Asph	Asph	Apsh	60	Very Good	Co. Arterial		
	Cascade Hwy NE	Silverton	Paradise Alley	W Main St	3.98	4.39	0.41	5200	0.20	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Arterial		
	N Westfield St	Silverton	W Main St	Robert Frost School	4.39	4.52	0.13	2900	0.13	B	2	3	22	3	Asph	Asph	Asph	60	Good	Urb. Arterial		
	N Westfield St	Silverton	Robert Frost School	McClaine St	4.52	4.87	0.35	3200	0.13	B	2	3	22	3	Asph	Asph	Asph	60	Good	Urb. Arterial	X	
34 A	Stadeli Ln NE		Cascade Hwy NE	Cascade Hwy NE	0	0.28	0.28	80	0.00	A	2	3	16	3	Grav	Asph	Grav	60	Fair	Local		
34 B	Pettit Ln NE		Cascade Hwy NE	Cascade Hwy NE	0	0.41	0.41	90	0.01	A	2	3	16	3	Grav	Asph	Grav	60	Poor	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
34 C	W Main St		Cascade Hwy	Eureka Ave	0	0.24	0.24	3400	0.16	B	2	2	22	2	Grav	Asph	Grav	60		Urb. Arterial		
35	North Ave	Jefferson	Jefferson Hwy	Jefferson-Marion Rd	0	0.17	0.17	3200	0.12	B	2	3	28	3	Asph	Asph	Asph	60		Urb. Co. Arterial		
	Jefferson-Marion Rd	Jefferson	North Ave	Jefferson City Limits	0.17	0.25	0.08	2950	0.11	A	2	3	28	3	Asph	Asph	Asph	60		Urb. Co. Arterial		
	Jefferson-Marion Rd		Jefferson City Limits	Skelton Rd	0.25	0.85	0.60	2800	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Jefferson-Marion Rd		Skelton Rd	Parrish Gap Rd	0.85	1.66	0.81	2500	0.09	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Jefferson-Marion Rd		Parrish Gap Rd	Greens Bridge Rd	1.66	2.74	1.08	2000	0.10	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Co. Arterial		
	Jefferson-Marion Rd		Greens Bridge Rd	Stayton Rd	2.74	4.95	2.21	2250	0.11	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Co. Arterial		
36	River Rd NE		Keizer City Limits	Buena Crest School	1.2	2.62	1.42	5400	0.18	B	2	5	34	5	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd NE		Buena Crest School	Brooklake Rd	2.62	3.19	0.57	4900	0.16	B	2	7	34	4	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd NE		Brooklake Rd	Waconda Rd	3.19	4.97	1.78	4230	0.21	B	2	5	22	5	Grav	Asph	Grav	60	Good	Co. Arterial		
	River Rd NE		Waconda Rd	Matheny Rd	4.97	6.25	1.28	4200	0.20	B	2	5	22	5	Grav	Asph	Grav	60	Good	Co. Arterial		
	River Rd NE		Matheny	French Prairie Rd	6.25	7.85	1.60	4300	0.17	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	River Rd NE		French Prairie Rd	Mahony Rd	7.85	10.8	2.93	2350	0.10	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	River Rd NE		Mahony Rd	Davidson Rd	10.8	14.7	3.93	2740	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	River Rd NE		Davidson Rd	St. Paul City Limits	14.7	15.4	0.73	2700	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	River Rd NE	St. Paul	St. Paul City Limits	Park Ave	15.4	15.6	0.18	2800	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	River Rd NE	St. Paul	Park Ave	Begin sidewalk (right)	15.6	15.7	0.04	3000	0.12	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	River Rd NE	St. Paul	Begin sidewalk (right)	Blanchet Ave	15.7	15.7	0.02	3200	0.12	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	River Rd NE	St. Paul	Blanchet Ave	Hwy 219	15.7	15.7	0.04	4000	0.16	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		X
37	Brooklake Rd NE		Hwy 99E	Lakeside Dr	0	1.25	1.25	1800	0.09	A	2	3	20	3	Grav	Asph	Grav	50	Good	Maj. Collector		
	Brooklake Rd NE		Lakeside Dr	65th Ave NE	1.25	1.44	0.19	1500	0.08	A	2	3	20	3	Grav	Asph	Grav	50	Good	Min. Collector		
	65th Ave NE		Brooklake Rd NE	Labish Center Rd	1.44	1.97	0.53	1100	0.06	A	2	3	20	3	Grav	Asph	Grav	50	Good	Min. Collector		
	Labish Center Rd		65th Ave NE	72nd Ave NE	1.97	2.71	0.74	900	0.04	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	72nd Ave NE		Labish Center Rd	Brooklake Rd NE	2.71	3.21	0.50	680	0.03	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	Brooklake Rd NE		72nd Ave NE	75th Ave NE	3.21	3.45	0.24	560	0.02	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	75th Ave NE		Brooklake Rd NE	Rambler Dr NE	3.45	3.67	0.22	540	0.02	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	Rambler Dr NE		75th Ave NE	82nd Ave NE	3.67	4.51	0.84	400	0.02	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
38	Boones Ferry Rd NE		Hwy 99E	Belle Passi Rd	0	0.72	0.72	3000	0.13	B	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Boones Ferry Rd NE		Belle Passi Rd	Woodburn UGB	0.72	0.96	0.24	3110	0.14	B	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Boones Ferry Rd NE		Woodburn UGB	Woodburn City Limits	0.96	1.49	0.53	3800	0.17	B	2	3	22	3	Grav	Asph	Grav	60	Very Good	Urb. Maj. Collector		
39	Talbot Rd		Buena Vista Rd	Gilmour Rd S	0	1.6	1.60	180	0.01	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Talbot Rd		Gilmour Rd S	Marlatt Rd S	1.6	2.64	1.04	250	0.02	A	2	2	18	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Talbot Rd		Marlatt Rd S	Jorgenson Rd S	2.64	4.62	1.98	550	0.04	A	2	2	18	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Talbot Rd		Jorgenson Rd S	I-5 Overcrossing	4.62	5.01	0.39	850	0.04	A	2	4	21	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Talbot Rd		I-5 Overcrossing	Jefferson UGB	5.01	7.6	2.59	1400	0.05	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Talbot Rd		Jefferson UGB	Jefferson Hwy	7.6	8.05	0.45	2000	0.07	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Maj. Collector		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
39 A	Westside Lane		I-5	Westside Ln (#3616)	0	0.24	0.24	50	0.00	A	2		16			Asph		60		Local		
40	West Stayton Rd SE		SPRR Xing	Darley Rd SE	0	0.49	0.49	1150	0.06	A	2	5	20	5	Grav	Asph	Grav	60	Good	Min. Collector		
	West Stayton Rd SE		Darley Rd SE	Shaff Rd SE	0.49	2.21	1.72	1400	0.07	A	2	5	20	5	Grav	Asph	Grav	60	Good	Min. Collector		
	West Stayton Rd SE		Shaff Rd SE	Aumsville City Limits	2.21	4.28	2.07	2100	0.10	A	2	5	20	5	Grav	Asph	Grav	60	Good	Min. Collector		
	West Stayton Rd SE	Aumsville	Aumsville City Limits	Main St	4.28	4.4	0.12	2300	0.12	A	2	5	20	5	Grav	Asph	Grav	60	Good	Urb. Maj. Collector		
41	Cloverdale Rd SE		Enchanted Way	Ridgeway Dr	0	0.44	0.44	1400	0.07	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Cloverdale Rd SE		Ridgeway Dr	Parrish Gap Rd	0.44	2.43	1.99	700	0.03	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
	Hennies Rd SE		Parrish Gap Rd	Wipper Rd SE	2.43	3.18	0.75	1000	0.05	A	2	0	20			Asph		50	Fair	Min. Collector		
	Wipper Rd SE		Hennies Rd SE	Turner City Limits	3.18	4.52	1.34	750	0.04	A	2	0	20			Asph		50	Very Good	Min. Collector		
	Wipper Rd SE	Turner	Turner City Limits	5th St SE	4.52	4.64	0.12	800	0.05	A	2	0	20			Asph		50	Very Good	Urb. Min. Collector		
42	N Center St	Sublimity	Starr St NW	Begin sidewalk (left)	0	0.03	0.03	4400	0.15	B	2	6	35	6	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	N Center St	Sublimity	Begin sidewalk (left)	Begin sidewalk (right)	0.03	0.13	0.10	4300	0.15	B	2	6	35	6	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	N Center St	Sublimity	Begin sidewalk (right)	Crest St	0.13	0.15	0.02	4200	0.14	B	2	6	35	6	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	
	N Center St	Sublimity	Crest St	5th St	0.15	0.19	0.04	4100	0.14	B	2	6	35	6	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	N Center St	Sublimity	5th St	Sublimity City Limits	0.19	0.24	0.05	3800	0.13	B	2	6	35	6	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial	X	X
	Cascade Hwy		Sublimity City Limits	Triumph Rd	0.24	0.64	0.40	3700	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Cascade Hwy		Triumph Rd	Hwy 214	0.64	2.45	1.81	3300	0.13	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Cascade Hwy		Hwy 214	Doerfler Rd	2.45	5.97	3.52	3100	0.15	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Cascade Hwy		Doerfler Rd	Sunnyview Rd	5.97	7.93	1.96	3700	0.18	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		
42 A	McElhaney Rd SE		Cascade Hwy	Waldo Hills Dr	0	0.74	0.74	10	0.00	A	2	5	16	5	Grav	Asph	Grav	60	Very Good	Local		
42 B	Tree Haven Rd SE		Cascade Hwy	Cascade Hwy	0	0.68	0.68	20	0.00	A	2		16			Asph		60	Very Good	Local		
43	Drift Creek Rd		Hwy 214	Frazer Rd SE	0	2.06	2.06	260	0.02	A	2	1	22	1	Grav	Asph	Grav	50	Very Good	Local		
	Drift Creek Rd		Frazer Rd SE	Silver Ridge Rd SE	2.06	2.45	0.39	220	0.01	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Local		
	Silver Ridge Rd SE		Drift Creek Rd	End Pavement	2.45	2.54	0.09	50	0.00	A	2		20			Asph		50		Local		
	Silver Ridge Rd SE		End Pavement	Silver Ridge Rd (#884)	2.54	4.36	1.82	50	0.01	A	2		18			Grav		50		Local		
44	Sunnyview Rd NE		SPRR Xing	Pudding River	0	0.65	0.65	800	0.05	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Sunnyview Rd NE		Pudding River	Cascade Hwy	0.65	4.35	3.70	480	0.03	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
46	Drift Creek Rd SE		Silver Ridge Rd	Fox Rd SE	0	2.06	2.06	180	0.01	A	2	3	19	3	Grav	Asph	Grav	50	Very Good	Local		
	Drift Creek Rd SE		Fox Rd SE	Victor Point Rd	2.06	6.17	4.11	360	0.03	A	2	3	19	3	Grav	Asph	Grav	50	Very Good	Local		
	Victor Point Rd		Drift Creek Rd	Silverton Urban Area	6.17	8.59	2.42	940	0.05	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Victor Point Rd		Silverton Urban Area	Edison Rd NE	8.59	8.65	0.06	1100	0.05	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Urb. Arterial		
	Eureka Ave NE		Edison Rd NE	Silverton City Limits	8.65	9.3	0.65	1500	0.08	A	2	3	21	3	Grav	Asph	Grav	50	Very Good	Urb. Arterial		
	Eureka Ave NE	Silverton	Silverton City Limits	Main St	9.3	9.58	0.28	1800	0.09	A	2	3	21	3	Grav	Asph	Grav	50	Very Good	Urb. Arterial		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
47	Silverton Rd NE		Shannon Rd NE	Desart Rd NE	0	1	1.00	10500	0.34	C	2	5	34	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Silverton Rd NE		Desart Rd NE	Brush Creek Rd	1	2.32	1.32	10500	0.34	C	2	5	32	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Silverton Rd NE		Brush Creek Rd	Railway Ave	2.32	3.73	1.41	9400	0.30	C	2	5	34	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Silverton Rd NE		Railway Ave	Fossholm St	3.73	4.03	0.30	9200	0.30	C	2	5	28	5	Asph	Asph	Asph	60	Very Good	Urb. Arterial		
47 A	Rail Way NE		Silverton Rd	Silverton Rd	0	0.31	0.31	20	0.00	A	2	3	20	3	Grav	Asph	Grav	40	Very Good	Urb. Local		
49	Saratoga Dr NE		Howell Prairie Rd	114th Ave NE	0	2.69	2.69	740	0.04	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Hook Rd NE		114th Ave NE	Mt. Angel Hwy	2.69	3.79	1.10	560	0.03	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Local		
50	Rambler Dr NE		82nd Ave NE	Howell Prairie Rd	0	1.23	1.23	400	0.02	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Local		
51	Howell Prairie Rd		Macleay Rd SE	State St	0	1.45	1.45	1300	0.05	A	2	3	24	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		State St	Sunnyview Rd	1.45	3.61	2.16	2350	0.11	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Sunnyview Rd	Kaufman Rd	3.61	4.74	1.13	2650	0.12	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Kaufman Rd	Silverton Rd	4.74	6.25	1.51	1950	0.09	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Silverton Rd	Hazelgreen Rd	6.25	7.45	1.20	2300	0.11	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Hazelgreen Rd	Nusom	7.45	8.99	1.54	1650	0.08	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Nusom Rd	Rambler Dr NE	8.99	10.1	1.13	1250	0.06	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Rambler Dr NE	#103102 Howell Prairie Rd	10.1	11.8	1.70	1350	0.06	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		#103102 Howell Prarie Rd	Waconda Rd NE	11.8	12.4	0.60	1300	0.12	A	2	3	20	3	Grav	Grav	Grav	60	Very Good	Maj. Collector		
	Howell Prairie Rd		Waconda Rd NE	Mt. Angel-Gervais Rd	12.4	13.9	1.53	1500	0.08	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel -Gervais Rd		Howell Prairie Rd	Sacred Heart Cemetary	13.9	15	1.07	2200	0.12	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Mt. Angel -Gervais Rd		Sacred Heart Cemetary	Hwy 99E	15	15.4	0.35	2300	0.12	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
52	Hazelgreen Rd		Salem City Limits	Lake Labish Rd	0.97	1.47	0.50	6500	0.21	B	2	5	24	5	Asph	Asph	Asph	50	Poor	Urb. Arterial		
	Hazelgreen Rd		Lake Labish Rd	Cordon Rd	1.47	2.12	0.65	6200	0.21	B	2	5	32	5	Asph	Asph	Asph	50	Poor	Co. Arterial		
	Hazelgreen Rd		Cordon Rd	Pudding River Bridge	2.12	3.56	1.44	4800	0.16	B	2	5	32	5	Asph	Asph	Asph	50	Good	Co. Arterial		
	Hazelgreen Rd		Pudding River Bridge	Howell Prairie Rd	3.56	5.75	2.19	4700	0.18	B	2	3	28	3	Asph	Asph	Asph	50	Good	Co. Arterial		
	Hazelgreen Rd		Howell Prairie Rd	Shannon Rd NE	5.75	6.48	0.73	3700	0.14	B	2	3	28	3	Asph	Asph	Asph	50	Very Good	Co. Arterial		
53	River Rd S		Willamette River Bridge	End Bridge	0	0.39	0.39	4700	0.20	B	2	1	28	1	Asph	Conc	*	60		Co. Arterial		
	River Rd S		End Bridge	Riverside Dr S	0.39	0.42	0.03	4700	0.17	B	2	3	28	3	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd S		Riverside Dr S	Orville Rd S	0.42	2.04	1.62	4250	0.15	B	2	3	28	3	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd S		Orville Rd S	Vitae Springs Rd	2.04	2.82	0.78	2800	0.12	B	2	3	28	3	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd S		Vitae Springs Rd	Sawmill Rd	2.82	4.13	1.31	2900	0.13	B	2	3	28	3	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd S		Sawmill Rd	Riverdale Rd	4.13	5.69	1.56	3000	0.13	B	2	3	28	3	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd S		Riverdale Rd	Salem City Limits (Ahd)	5.69	5.85	0.16	3200	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Good	Co. Arterial		
	River Rd S		Salem City Limits (Bk)	Riverdale Rd	6.71	6.83	0.12	5000	0.21	B	2	2	26	2	Grav	Asph	Grav	60	Fair	Co. Arterial		
54	Buena Vista Rd S		Ferry Landing	Talbot Rd	0	0.22	0.22	160	0.01	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Min. Collector		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Buena Vista Rd S		Talbot Rd	Gilmour Rd S	0.22	1.67	1.45	130	0.01	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Local		
	Buena Vista Rd S		Gilmour Rd S	Sidney Rd S	0.22	3.86	3.64	250	0.02	A	2	2	19	3	Grav	Asph	Grav	50	Very Good	Local		
	Buena Vista Rd S		Sidney Rd S	Ankeny Hill Rd	3.86	5.03	1.17	400	0.03	A	2	2	19	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Liberty Rd S		Ankeny Hill Rd	Lake Dr S	5.03	5.82	0.79	450	0.04	A	2	2	18	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Liberty Rd S		Lake Dr S	Camelot Dr S	5.82	6.42	0.60	700	0.05	A	2	2	18	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Liberty Rd S		Camelot Dr S	Bunker Hill Rd	6.42	7.66	1.24	860	0.06	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Liberty Rd S		Bunker Hill Rd	Hylo Rd SE	7.66	8.62	0.96	1450	0.10	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Liberty Rd S		Hylo Rd SE	Bates Rd S	8.62	9.17	0.55	2300	0.09	A	2	5	32	5	Asph	Asph	Asph	50	Good	Co. Arterial		
54 A	Old Liberty Rd S		Cole Rd S	Liberty Rd S	0	0.35	0.35	70	0.01	A	2	1	18	1	Grav	Asph	Grav	50	Very Good	Local		
55	Skyline Rd S		Vitae Springs Rd S	Salem City Limits	0	0.58	0.58	3400	0.18	B	2		28			Asph		50	Very Good	Co. Arterial		
56	32nd Ave SE		End of Cul De Sac	Boone Rd SE	1.28	1.43	0.15	30	0.00	A	2	1	19	1	Grav	Asph	Grav	40	Fair	Urb. Local		
	Boone Rd SE		32nd Ave SE	Salem City Limits	1.43	2.25	0.82	200	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Fair	Urb. Local		
57	Kiliam Rd NE		Kiliam Loop	Union School Rd	0	0.5	0.50	360	0.02	A	2	2	20	2	Grav	Asph	Grav	50	Very Poor	Local		
57 A	Killiam Rd NE		Hwy 211	Dead End	0	0.07	0.07	20	0.00	A	2	3	19	3	Grav	Asph	Grav	50		Local		
58	Mineral Springs Rd		Boones Ferry Rd	Hubbard Urban Area	0	0.54	0.54	1320	0.08	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
	Mineral Springs Rd		Hubbard Urban Area	Hubbard City Limits	0.54	0.63	0.09	1400	0.08	A	2	1	20	1	Grav	Asph	Grav	40	Good	Urb. Local		
59	Airport Rd NE		Ehlen Rd NE	Aurora UGB	0	0.3	0.30	2800	0.14	B	2	3	20	3	Grav	Asph	Grav	60	Very Good	Urb. Maj. Collector		
	Airport Rd NE		Aurora UGB	Arndt Rd NE	0.3	1.86	1.56	2400	0.12	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
60	Arndt Rd NE		BNRR Xing	Bents Rd	0	0.43	0.43	2300	0.11	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Arndt Rd NE		Bents Rd	Schultz Rd NE	0.43	1.27	0.84	1700	0.08	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
61	Donald Rd NE		Yergen Rd	Donald City Limits	0	0.85	0.85	700	0.03	A	2	2	22	2	Grav	Asph	Grav	50	Good	Urb. Min. Collector		
	Main St	Donald	Donald City Limits	Butteville Rd	0.85	0.94	0.09	650	0.03	A	2		40			Asph		50	Very Good	Urb. Min. Collector		
	Main St	Donald	Butteville Rd	Crisell St	0.94	1	0.06	2500	0.11	A	2		40			Asph		50	Very Good	Urb. Min. Collector	X	X
	Main St	Donald	Crisell St	Feller St	1	1.06	0.06	2200	0.10	A	2		40			Asph		50	Very Good	Urb. Min. Collector	X	
	Main St	Donald	Feller St	Williams St	1.06	1.12	0.06	1900	0.08	A	2		40			Asph		50	Very Good	Urb. Min. Collector	X	X
	Main St	Donald	Williams St	Matthieu St	1.12	1.16	0.04	1300	0.06	A	2		40			Asph		50	Very Good	Urb. Min. Collector	X	X
63	Chemawa Rd N	Keizer	Willow Lk Treatment Plant	Naples St N	1.63	1.99	0.36	100	0.00	A	2	5	20	5	Grav	Asph	Grav	40		Urb. Arterial		
64	Center St NE		Cordon Rd	Hampden Ln NE	1.17	1.72	0.55	2600	0.13	B	2	2	22	2	Grav	Asph	Grav	70	Very Good	Min. Collector		
	Hampden Ln NE		Center St NE	Fruitland Rd NE	1.72	1.77	0.05	2200	0.11	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Fruitland Rd NE		Hampden Ln NE	Clover Valley Ct	1.77	2.41	0.64	1800	0.09	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Fruitland Rd NE		Clover Valley Ct	62nd Ave NE	2.41	2.49	0.08	1400	0.07	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Min. Collector		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Fruitland Rd NE		62nd Ave NE	63rd Ave NE	2.49	2.64	0.15	1200	0.06	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
65	Butteville Rd NE		Hwy 214	Crosby Rd NE	0	1.1	1.10	2300	0.09	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Butteville Rd NE		Crosby Rd NE	Broadacres Rd	1.1	2.72	1.62	2580	0.10	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Butteville Rd NE		Broadacres Rd	St. Paul Hwy	2.72	3.32	0.60	2800	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Butteville Rd NE		St. Paul Hwy	Donald City Limits (Ahd)	3.32	5.26	1.94	2100	0.09	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Butteville Rd NE	Donald	Donald City Limits (Ahd)	Main St	5.26	5.49	0.23	2800	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Maj. Collector		
	Butteville Rd NE	Donald	Main St	Donald City Limits (Bk)	5.49	5.7	0.21	2800	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Maj. Collector		
	Butteville Rd NE		Donald City Limits (Bk)	Ehlen Rd	5.7	6	0.30	2600	0.10	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Butteville Rd NE		Ehlen Rd	Fargo Rd	6	6.95	0.95	760	0.04	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Butteville Rd NE		Fargo Rd	Champoeg Rd	6.95	7.78	0.83	530	0.02	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Maj. Collector		
66	1st Ave		Santiam Bridge	Stayton City Limits	0	0.15	0.15	7600	0.32	C	2	8	24	8	Grav	Asph	Grav	60	Poor	Urb. Arterial		
	1st Ave	Stayton	Stayton City Limits	Bridge over Mill Race	0.15	0.3	0.15	8200	0.33	C	2	8	24	8	Grav	Asph	Grav	60	Poor	Urb. Arterial		
	1st Ave	Stayton	Bridge over Mill Race	Water St	0.3	0.34	0.04	8200	0.33	C	2	8	24	8	Grav	Asph	Grav	60	Poor	Urb. Arterial	X	X
67	Darley Rd SE		Marion Rd SE	W Stayton Rd	0	1.93	1.93	980	0.05	A	2	4	20	4	Grav	Asph	Grav	50	Very Good	Min. Collector		
68	French Prairie Rd NE		River Rd NE	St. Louis Rd	0	0.63	0.63	1750	0.08	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	French Prairie Rd NE		St. Louis Rd	Hwy 214	0.63	3.84	3.21	1460	0.07	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
69	Boones Ferry Rd	Woodburn	Vanderbeck Ln	Woodburn UGB	0.64	0.82	0.18	4600	0.20	B	2	4	22	4	Grav	Asph	Grav	60	Very Good	Urb. Maj. Collector		
	Boones Ferry Rd		Woodburn UGB	Crosby Rd	0.82	1.27	0.45	3800	0.17	B	2	4	22	4	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Boones Ferry Rd		Crosby Rd	Mobile Estate Dr	1.27	2.08	0.81	3200	0.14	B	2	4	22	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Boones Ferry Rd		Mobile Estates Dr	Broadacres Rd	2.08	2.96	0.88	2800	0.12	B	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
70	Woodburn-Hubbard Rd		Woodburn City Limits	Hubbard City Limits	1.29	2.92	1.63	2900	0.13	B	2	4	22	4	Grav	Asph	Grav	50	Very Good	Maj. Collector		
71	Manning Rd NE		St. Louis Rd	Begin sidewalk (left)	0	0.02	0.02	650	0.04	A	2	4	19	4	Grav	Asph	Grav	60	Fair	Local		
	Manning Rd NE		Begin sidewalk (left)	Dorion Ln	0.02	0.1	0.08	650	0.04	A	2	4	19	4	Grav	Asph	Grav	60	Fair	Local	X	
	Manning Rd NE		Dorion Ln	Deconick Rd	0.1	1.58	1.48	550	0.03	A	2	4	19	4	Grav	Asph	Grav	60	Fair	Local		
	Deconinck Rd		Manning Rd	Arbor Grove Rd	1.58	2.11	0.53	570	0.04	A	2	4	19	4	Grav	Asph	Grav	60	Fair	Local		
	Arbor Grove Rd		Deconick Rd	Hwy 214	2.11	3.35	1.24	600	0.03	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Local		
72	Checkerboard Rd NE		Hwy 99E	Gervais Urban Area	0	0.51	0.51	1500	0.07	A	2	4	20	4	Grav	Asph	Grav	60	Good	Urb. Maj. Collector		
	Checkerboard Rd NE		Gervais Urban Area	Gervais City Limits	0.51	0.73	0.22	1500	0.07	A	2	4	20	4	Grav	Asph	Grav	60	Good	Urb. Maj. Collector		
	3rd St	Gervais	Gervais City Limits	Douglas Ave	0.73	0.91	0.18	1500	0.08	A	2	4	20	4	Grav	Asph	Grav	60	Good	Urb. Maj. Collector		
	3rd St	Gervais	Douglas Ave	Fir Ave	0.91	1.01	0.10	1600	0.07	A	2	5	22	5	Grav	Asph	Grav	60	Good	Urb. Maj. Collector	X	
	3rd St	Gervais	Fir Ave	Hemlock Ave	1.01	1.11	0.10	1800	0.08	A	2	5	22	5	Grav	Asph	Grav	60	Good	Urb. Maj. Collector	X	X
	3rd St	Gervais	Hemlock Ave	Ivy Ave	1.11	1.16	0.05	1900	0.08	A	2	5	22	5	Grav	Asph	Grav	60	Good	Urb. Maj. Collector	X	
	Ivy Ave	Gervais	3rd St	SPRR Xing	1.16	1.23	0.07	2000	0.10	A	2	5	20	5	Grav	Asph	Grav	60	Fair	Urb. Maj. Collector	X	
	Ivy Ave	Gervais	SPRR Xing	Gervais City Limits	1.23	1.61	0.38	2300	0.10	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Urb. Maj. Collector		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Butteville Rd NE		Ivy Ave	I-5 OverXing	1.61	2.95	1.34	2700	0.12	B	2	3	22	3	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Butteville Rd NE		I-5 OverXing	Hwy 214	2.95	4.13	1.18	2800	0.11	A	2	3	28	3	Grav	Asph	Grav	60	Good	Maj. Collector		
73	Mt. Angel-Gervais Rd		Howell Prairie Rd	Miller Rd	0	0.43	0.43	1100	0.06	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Urb. Min. Collector		
	Mt. Angel-Gervais Rd		Miller Rd	Dominic Rd	0.43	3	2.57	1200	0.06	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Mt. Angel-Gervais Rd		Dominic Rd	Mt. Angel UGB	3	3.61	0.61	1100	0.05	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Mt. Angel-Gervais Rd		Mt. Angel UGB	Mt. Angel City Limits	3.61	4.15	0.54	1200	0.06	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Urb. Min. Collector		
	Mt. Angel-Gervais Rd	Mt. Angel	Mt. Angel City Limits	Marquam St	4.15	4.26	0.11	2100	0.11	A	2	5	20	5	Grav	Asph	Grav	50		Urb. Min. Collector		
74	Monitor Rd NE		Hwy 213	Hobart Rd NE	0	0.65	0.65	1300	0.07	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Urb. Arterial		
	Meridian Rd NE		Hobart Rd NE	Downs Rd	0.65	2.36	1.71	2000	0.10	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Meridian Rd NE		Downs Rd	E. College Rd	2.36	3.19	0.83	2500	0.12	A	2	4	22	4	Grav	Asph	Grav	50	Very Good	Maj. Collector		
	Meridian Rd NE		E. College Rd	Marquam Rd NE	3.19	4.4	1.21	2000	0.10	A	2	4	20	4	Grav	Asph	Grav	50	Good	Maj. Collector		
	Meridian Rd NE		Marquam Rd NE	Dominic Rd NE	4.4	5.41	1.01	2200	0.11	A	2	4	20	4	Grav	Asph	Grav	50	Good	Maj. Collector		
	Meridian Rd NE		Dominic Rd NE	Monitor Elem School	5.41	6.48	1.07	2100	0.11	A	2	4	20	4	Grav	Asph	Grav	50	Good	Maj. Collector		
	Meridian Rd NE		Monitor Elem School	Woodburn-Monitor Rd	6.48	6.56	0.08	2300	0.12	A	2	4	20	4	Grav	Asph	Grav	50	Good	Maj. Collector	X	
75	2nd St	Silverton	D St	Hobart Rd NE	0	0.8	0.80	950	0.06	A	2	2	20	2	Grav	Asph	Grav	50		Urb. Collector		
	Hobart Rd NE	Silverton	2nd St	Lanham Ln NE	0.8	1.36	0.56	2900	0.16	B	2	1	22	1	Grav	Asph	Grav	50	Very Good	Urb. Collector		
	Hobart Rd NE		Lanham Ln NE	Meridian Rd NE	1.36	1.6	0.24	2750	0.11	A	2	4	41	4	Asph	Asph	Asph	50	Very Good	Urb. Collector		
76	Crooked Finger Rd NE	Scotts Mills	3rd St	Scotts Mills City Limits	0	0.61	0.61	1060	0.05	A	2	1	22	1	Grav	Asph	Grav	50	Very Good	Urb. Min. Collector		
	Crooked Finger Rd NE		Scotts Mills City Limits	Hazelnut Ridge Rd	0.61	1.57	0.96	920	0.06	A	2	1	22	1	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Crooked Finger Rd NE		Hazelnut Ridge Rd	Crooked Finger Rd (Ahd)	1.57	2.33	0.76	720	0.05	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
77	Abiqua Rd NE		Hwy 213	McKillop Rd NE	0	3.85	3.85	1160	0.07	A	2	1	20	1	Grav	Asph	Grav	40	Good	Min. Collector		
	Abiqua Rd NE		McKillop Rd NE	Briar Knob Loop	3.85	5.34	1.49	600	0.03	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
79	Victor Point Rd		Hwy 214	Waldo Hills Dr	0	1.9	1.90	220	0.01	A	2	1	22	1	Grav	Asph	Grav	50	Very Good	Local		
	Victor Point Rd		Waldo Hills Dr	Doerfler Rd SE	1.9	3.58	1.68	260	0.02	A	2	2	19	2	Grav	Asph	Grav	50	Good	Local		
	Victor Point Rd		Doerfler Rd SE	Fox Rd SE	3.58	4.23	0.65	400	0.03	A	2	2	19	2	Grav	Asph	Grav	50	Good	Local		
	Victor Point Rd		Fox Rd SE	Drift Creek Rd	4.23	7.09	2.86	400	0.03	A	2	2	20	2	Grav	Asph	Grav	50	Fair	Local		
80	Riches Rd NE		Cascade Hwy	Victor Point Rd	0	3.16	3.16	280	0.02	A	2	2	19	2	Grav	Asph	Grav	50	Very Good	Local		
81	Church St	Sublimity	Center St	SE Clay St	0	0.05	0.05	1800	0.07	A	2	6	22	6	Asph	Asph	Asph	60	Good	Urb. Min. Collector		
	Church St	Sublimity	SE Clay St	SE Broadway St	0.05	0.11	0.06	1600	0.06	A	2	6	22	6	Asph	Asph	Asph	60	Good	Urb. Min. Collector	X	
	Church St	Sublimity	SE Broadway St	Begin sidewalk (right)	0.11	0.17	0.06	1400	0.05	A	2	6	22	6	Asph	Asph	Asph	60	Good	Urb. Min. Collector		
	Church St	Sublimity	Begin sidewalk (right)	Pine St	0.17	0.33	0.16	1200	0.04	A	2	6	22	6	Asph	Asph	Asph	60	Good	Urb. Min. Collector		X
	Church St	Sublimity	Pine St	Dove Dr	0.33	0.44	0.11	800	0.03	A	2	6	22	6	Asph	Asph	Asph	60	Good	Urb. Min. Collector	X	
	Church St	Sublimity	Dove Dr	Coon Hollow Rd SE	0.44	0.62	0.18	600	0.02	A	2	6	22	6	Asph	Asph	Asph	60	Good	Urb. Min. Collector		
	Coon Hollow Rd SE		Church St	Boedigheimer Rd	0.62	1.02	0.40	420	0.02	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Min. Collector		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Coon Hollow Rd SE		Boedigheimer Rd	Begin Overlay	1.02	4.34	3.32	170	0.01	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Local		
	Coon Hollow Rd SE		Begin Overlay	170th Ave SE	4.34	4.57	0.23	100	0.01	A	2	0	22	0		Asph		60	Very Good	Local		
82	Fern Ridge Rd	Stayton	Cascade Hwy SE	Summerview Way	0	0.27	0.27	4800	0.19	B	2	3	42	3	Grav	Asph	Grav	50	Very Good	Urb. Collector		
	Fern Ridge Rd		Summerview Way	Wildflower Dr	0.27	0.37	0.10	4600	0.18	B	2	3	42	3	Grav	Asph	Grav	50	Very Good	Urb. Collector		
	Fern Ridge Rd		Wildflower Dr	End Curb S side	0.37	0.75	0.38	4000	0.16	B	2	3	40	3	Grav	Asph	Grav	50	Very Good	Urb. Collector		
	Fern Ridge Rd		End Curb S side	Hwy 22	0.75	0.95	0.20	3200	0.13	B	2	3	30	3	Grav	Asph	Grav	50	Very Good	Urb. Collector		
	Fern Ridge Rd		Hwy 22	Spenner Rd SE	0.95	3.05	2.10	680	0.03	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
	Fern Ridge Rd		Spenner Rd SE	Siegmund Rd SE	3.05	6.98	3.93	380	0.03	A	2	3	19	3	Grav	Asph	Grav	50	Good	Local		
83	Siegmund Rd SE		Old Mehema Rd	195 ft N of Old Mehama	0	0.04	0.04	80	0.00	A	2		28			Asph		50		Local		
	Siegmund Rd SE		195 ft N of Old Mehama	117 ft S of Fern Ridge	0.04	2.83	2.79	160	0.01	A	2		23			Grav		50	Very Good	Local		
	Siegmund Rd SE		117 ft S of Fern Ridge	Fern Ridge Rd	2.83	2.86	0.03	220	0.01	A	2		38			Asph		50	Very Good	Local		
84	Jennie Rd SE		Hwy 226	Lyons UGB (Bk)	0	0.19	0.19	420	0.02	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Urb. Local		
	Jennie Rd SE		Lyons UGB (Bk)	Hwy 22	0.19	1.01	0.82	350	0.02	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Local		
	North Fork Rd SE		Hwy 22	Pioneer Rd SE	1.01	2.12	1.11	1700	0.09	A	2	2	20	2	Grav	Asph	Grav	60	Good	Maj. Collector		
84 A	North Fork Rd (Old Align)		North Fork Rd SE	North Fork Rd SE	0	0.18	0.18	20	0.00	A	2	3	20	3	Grav	Asph	Grav	60		Local		
85	Golf Club Rd SE		Hwy 22	Mill Creek Rd	0	0.08	0.08	11500	0.38	C	2	5	36	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Golf Club Rd SE		Mill Creek Rd	Bridge S of Golf Course	0.08	0.36	0.28	11500	0.38	C	2	5	36	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Golf Club Rd SE		Bridge S of Golf Course	Stayton UGB	0.36	0.51	0.15	11500	0.38	C	2	5	36	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Golf Club Rd SE		Stayton UGB	Shaff Rd SE	0.51	1.51	1.00	10500	0.36	C	2	5	32	5	Asph	Asph	Asph	60	Very Good	Urb. Co. Arterial		
	Shaff Rd SE	Stayton	Golf Club Rd SE	Quail Run Ave	1.51	1.58	0.07	7800	0.25	C	2	5	49	5	Asph	Asph	Asph	60	Good	Urb. Arterial		X
	Shaff Rd SE	Stayton	Quail Run Ave	End sidewalk (right)	1.58	1.66	0.08	7500	0.25	C	2	5	49	5	Asph	Asph	Asph	60	Good	Urb. Arterial	X	X
	Shaff Rd SE	Stayton	End sidewalk (right)	Kendle Way SE	1.66	1.85	0.19	7000	0.23	B	2	5	38	5	Asph	Asph	Asph	60	Good	Urb. Arterial	X	
	Shaff Rd SE		Kendle Way SE	Stayton City Limits (Ahd)	1.85	2.01	0.16	6500	0.24	B	2	7	38	1	Asph	Asph	Asph	60	Good	Urb. Arterial		
	Shaff Rd SE	Stayton	Stayton City Limits (Ahd)	Gardner Ave	2.01	2.03	0.02	6500	0.24	B	2	5	38	1	Asph	Asph	Asph	60	Good	Urb. Arterial	X	X
	Shaff Rd SE	Stayton	Gardner Ave	Douglas Ave	2.03	2.33	0.30	6500	0.24	B	2	5	38	1	Asph	Asph	Asph	60	Good	Urb. Arterial		X
	Shaff Rd SE		Douglas Ave	Cascade Hwy SE	2.33	2.53	0.20	6500	0.24	B	2	3	42	3	Asph	Asph	Asph	60	Good	Urb. Arterial		
86	Shaff Rd SE		W Stayton Rd	Rainwater Ln	0	1.69	1.69	1300	0.06	A	2	4	22	4	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Shaff Rd SE		Rainwater Ln	Stayton UGB	1.69	2.62	0.93	1300	0.06	A	2	4	22	4	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Shaff Rd SE		Stayton UGB	Golf Club Rd	2.62	2.94	0.32	1300	0.06	A	2	4	22	4	Grav	Asph	Grav	50	Very Good	Urb. Min. Collector		
87	Stayton Rd SE		Jefferson-Marion Rd	Belden Dr SE	0	4.18	4.18	2300	0.11	A	2	4	22	4	Grav	Asph	Grav	60	Good	Co. Arterial		
	Stayton Rd SE		Belden Dr SE	W Stayton Rd	4.18	5.41	1.23	2400	0.11	A	2	4	22	4	Grav	Asph	Grav	60	Good	Co. Arterial		
88	1st St	Aumsville	Mill Creek Rd	Del Mar St	0	0.44	0.44	3200	0.15	B	2	3	22	3	Grav	Asph	Grav	60	Very Good	Urb. Maj. Collector		
	N Shaw Hwy		Del Mar St	Hwy 22 Eastbound onramp	0.44	0.64	0.20	4400	0.17	B	2	3	38	3	Grav	Asph	Grav	60	Very Good	Urb. Maj. Collector		
	N Shaw Hwy		Hwy 22 Westbound onram	Road narrows	0.98	1.13	0.15	1720	0.07	A	2	4	36	4	Grav	Asph	Grav	60	Good	Min. Collector		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	N Shaw Hwy		Road narrows	Hwy 214	1.13	2.33	1.20	1000	0.05	A	2	4	20	4	Grav	Asph	Grav	60	Good	Min. Collector		
89	Aumsville Hwy SE		Deer Park Dr SE	Joseph St SE	0	0.73	0.73	3000	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Aumsville Hwy SE		Joseph St SE	Witzel Rd SE	0.73	1.59	0.86	2350	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Aumsville Hwy SE		Witzel Rd SE	72nd Ave SE	1.59	2.43	0.84	1900	0.09	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Aumsville Hwy SE		72nd Ave SE	Walina Ct SE	2.43	3.12	0.69	2600	0.12	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Aumsville Hwy SE		Walina Ct SE	Aumsville City Limit (Ahd)	3.12	5.13	2.01	3800	0.14	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Aumsville Hwy SE	Aumsville	Aumsville City Limit (Ahd)	Aumsville City Limit (Bk)	5.13	5.25	0.12	3400	0.12	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Urb. Maj. Collector		
	Aumsville Hwy SE		Aumsville City Limit (Bk)	11th St N	5.25	5.41	0.16	3400	0.12	B	2	5	28	3	Asph	Asph	Asph	60	Very Good	Urb. Maj. Collector		
	11th St N	Aumsville	Aumsville Hwy SE	Aumsville City Limit (Ahd)	5.41	5.48	0.07	3200	0.12	A	2	5	22	5	Asph	Asph	Asph	60		Urb. Maj. Collector	X	
	11th St N	Aumsville	Aumsville City Limit (Ahd)	Cleveland St	5.48	5.62	0.14	3200	0.12	A	2	5	22	5	Asph	Asph	Asph	60		Urb. Maj. Collector	X	
	11th St N	Aumsville	Cleveland St	Mill Creek Rd	5.62	5.73	0.11	3200	0.12	B	2	5	22	5	Asph	Asph	Asph	60		Urb. Maj. Collector		
94	62nd Ave NE		Hazelgreen Rd	Perkins St NE	0	1.23	1.23	750	0.03	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Perkins St NE		62nd Ave NE	65th St NE	1.23	1.46	0.23	900	0.04	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	65th St NE		Perkins St NE	Labish Center Rd	1.46	1.73	0.27	900	0.04	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
96	McKay Rd NE		French Prairie Rd	Case Rd NE	0	1.66	1.66	6730	0.26	C	2	6	28	6	Asph	Asph	Asph	80	Very Good	Co. Arterial		
	Yergen Rd NE		Case Rd NE	Donald Rd NE	1.66	2.62	0.96	7250	0.28	C	2	5	32	5	Asph	Asph	Asph	80	Very Good	Co. Arterial		
	Ehlen Rd NE		Donald Rd NE	Butteville Rd NE	2.62	3.55	0.93	6200	0.24	C	2	6	28	6	Asph	Asph	Asph	80	Very Good	Co. Arterial		
	Ehlen Rd NE		Butteville Rd NE	Bents Rd	3.55	5.18	1.63	8000	0.31	C	2	6	28	6	Asph	Asph	Asph	80	Very Good	Co. Arterial		
	Ehlen Rd NE		Bents Rd	East of Interchange	5.18	5.28	0.10	9600	0.45	D	2	2	26	2	Asph	Asph	Asph	80	Very Good	Co. Arterial		
	Ehlen Rd NE		East of Interchange	Boones Ferry Rd	5.28	6.85	1.57	7100	0.24	C	2	5	32	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Ehlen Rd NE		Boones Ferry Rd	Wilsonville-Hubbard Hwy	6.85	6.92	0.07	9500	0.32	C	2	5	32	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Ehlen Rd NE		Wilsonville-Hubbard Hwy	Cole Ln NE	6.92	7.45	0.53	8460	0.29	C	2	6	24	6	Asph	Asph	Asph	60	Poor	Co. Arterial		
	Ehlen Rd NE		Cole Ln NE	Airport Rd	7.45	7.69	0.24	8900	0.30	C	2	6	24	6	Asph	Asph	Asph	60	Poor	Urb. Co. Arterial		
	Ehlen Rd NE		Airport Rd	Aurora UGB	7.69	7.81	0.12	9900	0.33	C	2	6	28	6	Asph	Asph	Asph	60	Poor	Urb. Co. Arterial		
	Ehlen Rd NE	Aurora	Aurora City Limits	Main St NE	7.81	7.87	0.06	10000	0.36	C	2	6	28	6	Asph	Asph	Asph	60	Poor	Urb. Arterial		
96 Z	McKay Rd NE		Hwy 219	French Prairie Rd	0	1.77	1.77	6500	0.25	C	2	6	28	6	Asph	Asph	Asph	80	Very Good	Co. Arterial		
97	Cordon Rd		Caplinger Rd (Salem CL)	State St	1.6	2.32	0.72	13000	0.42	D	2	7	39	7	Asph	Asph	Asph	##	Very Good	Co. Arterial		
	Cordon Rd		State St	Center St	2.32	3.13	0.81	17000	0.56	D	2	5	34	5	Asph	Asph	Asph	##	Very Good	Co. Arterial		
	Cordon Rd		Center St	Sunnyview Rd	3.13	4.19	1.06	15500	0.50	D	2	6	37	6	Asph	Asph	Asph	##	Very Good	Co. Arterial		
	Cordon Rd		Sunnyview Rd	Silverton Rd	4.19	5.34	1.15	14000	0.46	D	2	5	34	5	Asph	Asph	Asph	##	Good	Co. Arterial		
	Cordon Rd		Silverton Rd	Hayesville St	5.34	6.75	1.41	7600	0.25	C	2	5	34	5	Asph	Asph	Asph	90	Very Good	Co. Arterial		
	Cordon Rd		Hayesville St	Kale St	6.75	7.18	0.43	6000	0.20	B	2	5	34	5	Asph	Asph	Asph	90	Very Good	Co. Arterial		
	Cordon Rd		Kale St	Hazelgreen Rd	7.18	7.77	0.59	5800	0.19	B	2	5	34	5	Asph	Asph	Asph	##	Very Good	Co. Arterial		
401	Riverside Dr NE		Blanchet Ave	Mission Rd	0	0.6	0.60	310	0.02	A	2		20			Asph		40	Very Good	Local		
	Riverside Dr NE		Mission Rd	Ray Bell Rd	0.6	3.21	2.61	280	0.02	A	2		20			Asph		60	Very Good	Local		
	Riverside Dr NE		Ray Bell Rd	Champoeg Rd NE	3.21	5.12	1.91	250	0.01	A	2		20			Asph		40	Very Good	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road					Milepoint	Length	2003	2003	2003	No.	Widths			Type			R/W	Pavement	2003 Functional	Sidewalks	
No.	Road Name	City	From	To	From To	Segment	Volumes	V/C	LOS	Lanes	L Sh.	Tr. Surf.	R Sh.	L Sh.	Tr. Surf.	R Sh.	Width	Cond.	Class	Lt.	Rt.
402	Ray Bell Rd		Champoeg Rd	End Pavement	0 - 1.34	1.34	350	0.02	A	2	1	22	1	Grav	Asph	Grav	40	Very Good	Local		
	Ray Bell Rd		End Pavement	Beginning Pavement	1.34 - 2.76	1.42	300	0.03	A	2		16			Grav		40		Local		
	Ray Bell Rd		Beginning of Pavement	Riverside Dr	2.76 - 2.78	0.02	200	0.01	A	2		22			Asph		40		Local		
	Yeagens Landing Rd		Riverside Dr	410 ft W of Riverside Dr	2.78 - 2.86	0.08	40	0.00	A	1		12			Asph		40		Local		
	Yeagens Landing Rd		410 ft W of Riverside Dr	720 ft W of Riverside Dr	2.86 - 2.91	0.05	40	0.01	A	1		12			Grav		40		Local		
	Yeagens Landing Rd		720 ft W of Riverside Dr	End of Pavement	2.91 - 3.26	0.35	40	0.00	A	1		12			Asph		40		Local		
	Yeagens Landing Rd		End of Pavement	End of Maintenance	3.26 - 3.37	0.11	40	0.01	A	1		12			Grav		40		Local		
403	Mission Rd NE		Hwy 219	St. Paul UGB (Bk)	0 - 0.47	0.47	500	0.03	A	2	3	20	3	Grav	Asph	Grav	40	Good	Urb. Local		
	Mission Rd NE		St. Paul UGB (Bk)	Riverside Dr	0.47 - 1.15	0.68	400	0.02	A	2	3	20	3	Grav	Asph	Grav	40	Good	Local		
	Mission Rd NE		Riverside Dr	End Gravel	1.15 - 1.3	0.15	30	0.01	A	1		12			Grav		40		Local		
	Mission Rd NE		End Gravel	Dead End	1.3 - 1.36	0.06	10	0.00	A	1		10			Unimpr		40		Local		
404	Blanchet Ave	St. Paul	Main St	St. Paul City Limits	0 - 0.34	0.34	900	0.05	A	2	1	22	1	Grav	Asph	Grav	60	Good	Urb. Local	X	
	Blanchet Ave		St. Paul City Limits	St. Paul UGB (Bk)	0.34 - 0.4	0.06	700	0.04	A	2	1	22	1	Grav	Asph	Grav	60	Good	Local		
	Blanchet Ave		St. Paul UGB (Bk)	Riverside Dr	0.4 - 1.03	0.63	600	0.03	A	2	1	22	1	Grav	Asph	Grav	60	Good	Local		
	Blanchet Ave		Riverside Dr	Horseshoe Lake Rd NE	1.03 - 1.11	0.08	450	0.03	A	2	2	20	2	Grav	Asph	Grav	60	Good	Local		
	Horseshoe Lake Rd NE		Blanchet Ave	225' E of Horseshoe Lk	1.11 - 1.45	0.34	400	0.02	A	2	2	20	2	Grav	Asph	Grav	30	Good	Urb. Local		
	Horseshoe Lake Rd NE		225' E of Horseshoe Lk	End 18' lanes	1.45 - 3.06	1.61	250	0.02	A	2		18			Asph		30	Good	Local		
	Horseshoe Lake Rd NE		Begin 16' lanes	San Salvador Park	3.06 - 3.48	0.42	100	0.01	A	2		16			Asph		30	Good	Local		
405	Gearin Rd NE		McKay Rd	End Pavement	0 - 0.05	0.05	40	0.00	A	2		22			Asph		60	Very Good	Local		
	Gearin Rd NE		End Pavement	Begin Pavement	0.05 - 0.7	0.65	40	0.00	A	2					Grav		50		Local		
	Gearin Rd NE		Begin Pavement	McKay Rd	0.7 - 0.75	0.05	20	0.00	A	2		22			Asph		50	Very Good	Local		
406	Buyserie Rd NE		Hwy 219	End of Pavement	0 - 0.01	0.01	60	0.00	A	2		30			Asph		60		Local		
	Buyserie Rd NE		End of Pavement	Beginning Pavement	0.01 - 0.41	0.40	60	0.01	A	2		19			Grav		60		Local		
	Buyserie Rd NE		W of Mission Creek Bridge	E of Mission Creek Bridge	0.41 - 0.45	0.04	40	0.00	A	2		20			Asph		60		Local		
	Buyserie Rd NE		End of Pavement	Beginning Pavement	0.45 - 2.15	1.70	40	0.00	A	2		19			Grav		60		Local		
	Buyserie Rd NE		Beginning of Pavement	French Prairie Rd	2.15 - 2.18	0.03	40	0.00	A	2		20			Asph		60		Local		
408	Davidson Rd NE		River Rd NE	Hwy 219	0 - 2.21	2.21	530	0.03	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Local		
409	Vachter Rd NE		River Rd NE	147 ft E of River Rd	0 - 0.03	0.03	50	0.00	A	2		21			Asph		60		Local		
	Vachter Rd NE		147 ft E of River Rd	Hwy 219	0.03 - 2.24	2.21	50	0.00	A	2		21			Grav		60		Local		
411	Kirsch Rd NE		Hwy 219	End of Pavement	0 - 0.54	0.54	10	0.00	A	2		16			Asph		40		Local		
412	Kinns Ln NE		Arbor Grove Rd	Dead End	0 - 1.11	1.11	100	0.01	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
413	Champoeg Cemetary Rd NE		Case Rd NE	Dead End	0 - 0.06	0.06	10	0.00	A	1		8			Grav		60		Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
414	Champoeg Rd		Case Rd NE	Butteville Rd NE	0	1.95	1.95	870	0.05	A	2	4	19	4	Grav	Asph	Grav	60	Fair	Local		
415	Case Rd NE		Broadacres Rd NE	St. Paul Hwy	0	0.16	0.16	100	0.01	A	2		20			Grav		60		Local		
	Case Rd NE		St. Paul Hwy	McKay Rd	0.61	2.7	2.09	550	0.02	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Local		
416	Arbor Grove Rd NE		Hwy 214	St. Paul Hwy	0	3.08	3.08	900	0.04	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Local		
	Arbor Grove Rd NE		St. Paul Hwy	McKay Rd NE	3.08	5.13	2.05	520	0.03	A	2	4	19	4	Grav	Asph	Grav	60	Very Good	Local		
416 A	Pokorny Rd NE		Arbor Grove Rd	55 ft W of Arbor Grove	0	0.01	0.01	50	0.00	A	2		18			Asph		40		Local		
	Pokorny Rd NE		55 ft W of Arbor Grove	Dead End	0.01	0.3	0.29	30	0.00	A	2		14			Grav		40		Local		
417	Broadacres Rd NE		Arbor Grove Rd	Case Rd	0	0.68	0.68	420	0.02	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Local		
	Broadacres Rd NE		Case Rd	Butteville Rd NE	0.68	1.38	0.70	570	0.03	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Local		
419	Sleepy Hollow Rd		Butteville Rd NE	BNRR Xing	0	0.18	0.18	380	0.02	A	2		20			Asph		50	Very Good	Local		
	Sleepy Hollow Rd		BNRR Xing	Marsh Rd	0.18	0.2	0.02	280	0.01	A	2		20			Asph		50	Very Good	Local		
	Sleepy Hollow Rd		Marsh Rd	Sleepy Hollow Rd	0.2	1	0.80	150	0.01	A	2		20			Asph		50	Very Good	Local		
	Sleepy Hollow Rd		Sleepy Hollow Rd	Dead End	1	1.16	0.16	10	0.00	A	1		15			Grav		50		Local		
419 A	Sleepy Hollow Rd		Sleepy Hollow Rd	Crosby Rd	0	0.52	0.52	110	0.01	A	2		20			Asph		40	Very Good	Local		
420	Olmstead Rd NE		Butteville Rd NE	Yergen Rd NE	0	1.98	1.98	180	0.01	A	2	2	20	2	Grav	Asph	Grav	30	Very Good	Local		
421	Jette Ct NE		Champoeg Rd	End of Pavement	0	0.01	0.01	40	0.00	A	1		15			Asph		60		Local		
	Jette Ct NE		End of Pavement	Champoeg Rd	0.01	0.15	0.14	40	0.00	A	1		13			Grav		60		Local		
422	Ardnt Rd NE		Schultz Rd NE	3rd St	0	0.53	0.53	1100	0.05	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Union St		3rd St	Butteville Rd NE	0.53	0.64	0.11	520	0.03	A	2	4	19	4	Grav	Asph	Grav	60	Fair	Min. Collector		
	Butteville Rd NE		Union St	Clackamas Co. Line	0.64	1.47	0.83	630	0.04	A	2	1	18	1	Grav	Asph	Grav	60	Very Good	Min. Collector		
422 A	3rd St		Union St	Dead End	0	0.11	0.11	30	0.00	A	2		16			Grav		60		Local		
422 B	Butteville Rd NE		Champoeg Rd NE	Union St	0	0.48	0.48	850	0.04	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Min. Collector	X	
422 C	Butte St NE		2nd St	Marion St	0	0.05	0.05	780	0.03	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Local		
	1st St		Marion St	Union St	0.05	0.1	0.05	940	0.05	A	2	1	21	1	Grav	Asph	Grav	60	Very Good	Local		
422 D	Marion St		2nd St	Butte St	0	0.1	0.10	660	0.06	A	1		14			Grav		60		Local		
422 E	Butte St		1st St	Dead End	0	0.02	0.02	20	0.00	A	2		16			Grav		60		Local		
423	Schultz Rd NE		Fargo Rd NE	Arndt Rd NE	0	0.97	0.97	590	0.03	A	2	4	20	4	Grav	Asph	Grav	50	Very Good	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Schultz Rd NE		Arndt Rd NE	500 ft S of Oakmeadow Ln	0.97	1.07	0.10	240	0.01	A	2		21			Asph		40 - 60		Local		
	Schultz Rd NE		500 ft S of Oakmeadow Ln	End of Pavement	1.07	1.49	0.42	240	0.01	A	2		18			Asph		40 - 60		Local		
	Schultz Rd NE		End of Pavement	510 ft S of Butteville Rd	1.49	1.66	0.17	240	0.02	A	2		18			Grav		40 - 60		Local		
	Schultz Rd NE		510 ft S of Butteville Rd	Butteville Rd	1.66	1.76	0.10	240	0.01	A	2		18			Asph		40 - 60		Local		
424	Klupenger Rd NE		Arndt Rd NE	Clackamas Co. Line	0	1	1.00	580	0.03	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
425	Bents Rd		Ehlen Rd	.2 mi N of Ehlen	0	0.2	0.20	4260	0.26	C	2	4	24	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Bents Rd		.2 mi N of Ehlen	Arndt Rd NE	0.2	1.74	1.54	1400	0.06	A	2	4	24	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
426	Fargo Rd NE		Butteville Rd	Bents Rd NE	0	1.42	1.42	400	0.02	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
426 A	Yeary Ln NE		Fargo Rd NE	Dead End	0	0.34	0.34	40	0.00	A	2		15			Grav		30		Local		
427	Matthieu Ln NE		Butteville Rd	Dead End	0	0.79	0.79	80	0.01	A	2		18			Grav		30		Local		
428	Arndt Rd NE		Airport Rd NE	Hwy 51	0	0.25	0.25	9800	0.44	D	2	4	22	4	Grav	Asph	Grav	60	Good	Co. Arterial		
	Arndt Rd NE		Hwy 51	Boones Ferry Rd	0.25	0.75	0.50	3000	0.13	B	2	4	22	4	Grav	Asph	Grav	60	Good	Maj. Collector		
429	Keil Rd NE		Boones Ferry Rd	Airport Rd NE	0	0.9	0.90	540	0.03	A	2	2	21	2	Grav	Asph	Grav	60	Very Good	Local		
429 A	Keil Rd		Hwy 51	Boones Ferry Rd	0	0.09	0.09	100	0.01	A	2		16			Grav		60		Local		
430	Cole Ln NE		Ehlen Rd NE	End of Pavement	0	0.06	0.06	30	0.00	A	2		18			Asph		40		Local		
	Cole Ln NE		End of Pavement	Dead End	0.06	2	1.94	30	0.00	A	2		17			Grav		40		Local		
431	Oak Ln NE		Ehlen Rd NE	140 ft S of Ehlen	0	0.03	0.03	30	0.00	A	2		19			Asph		30		Local		
	Oak Ln NE		140 ft S of Ehlen	Dead End	0.03	0.44	0.41	30	0.00	A	2		15			Grav		30		Local		
432	Boones Ferry Rd		Broadacres Rd	Mineral Springs Rd	0	0.89	0.89	2960	0.11	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Min. Collector		
	Boones Ferry Rd		Mineral Springs Rd	Feller Rd NE	0.89	1.84	0.95	3340	0.12	B	2	3	28	3	Asph	Asph	Asph	60	Very Good	Min. Collector		
	Boones Ferry Rd		Feller Rd NE	Donald Rd	1.84	3.48	1.64	2400	0.11	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
433	Feller Rd NE		Butteville Rd	Boones Ferry Rd	0	2.45	2.45	410	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
433 B	Allinson Rd NE		Feller Rd NE	Arabian Ln	0	0.42	0.42	150	0.01	A	2		24			Grav		40		Local		
	Allinson Rd NE		Arabian Ln	Dead End	0.42	0.63	0.21	40	0.00	A	2		14			Grav		40		Local		
433 C	Greenbriar Ln NE		Allinson Rd	Dead End	0	0.16	0.16	20	0.00	A	1		13			Grav		40		Local		
433 D	Arabian Ln NE		Allinson Rd NE	Dead End	0	0.23	0.23	50	0.00	A	2		18			Grav		40		Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
434	Fry Rd NE		Donald Rd NE	Dead End	0	0.7	0.70	120	0.01	A	2		20			Asph		40	Very Good	Local		
437	Wiseacre Ln NE		Butteville Rd	Dead End	0	1.05	1.05	200	0.01	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
437 A	Beaver Ln NE		Wiseacre Ln NE	Private Rd	0	0.17	0.17	70	0.01	A	1		13			Grav		40		Local		
438	N 5th St		Hubbard City Limits	Dead End	0.43	0.82	0.39	100	0.01	A	2		14			Grav		40		Local		
439	Schmidt Ln NE		Hwy 99E	Dead End	0	0.18	0.18	30	0.01	A	1		10			Grav		40		Local		
439 A	Schmidt Ln NE		Hwy 99E	Dead End	0	0.13	0.13	30	0.00	A	2		14			Asph		40		Local		
440	Cessna St NE		Boones Ferry Rd	Cul De Sac	0	0.11	0.11	100	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
441	Grim Rd NE		Donald Rd NE	Boones Ferry Rd	0	0.34	0.34	950	0.03	A	2	5	34	5	Asph	Asph	Asph	60	Very Good	Min. Collector		
	Grim Rd NE		Boones Ferry Rd	Hwy 99E	0.34	1.3	0.96	1050	0.06	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Min. Collector		
442	Fobert Rd NE		Whiskey Hill	Scholl Rd NE	0	1.64	1.64	170	0.01	A	2		18			Grav		30		Local		
	Fobert Rd NE		Scholl Rd NE	90 degree curve	1.64	2.29	0.65	60	0.01	A	1		16			Grav		30		Local		
	Fobert Rd NE		90 degree curve	Hwy 99E	2.29	2.59	0.30	80	0.01	A	1		16			Grav		40		Local		
442 A	Scholl Rd NE		Hwy 99E	Fobert Rd NE	0	0.56	0.56	160	0.01	A	2		18			Grav		30		Local		
443	Pulley Rd NE		Whiskey Hill Rd	156 ft S of Whiskey Hill Rd	0	0.03	0.03	50	0.00	A	2		18			Asph		40	Poor	Local		
	Pulley Rd NE		156 ft S of Whiskey Hill Rd	End of Maintenance	0.03	0.45	0.42	30	0.01	A	2		11			Grav		40		Local		
444	Stauffer Rd NE		Hwy 99E	End Pavement	0	0.35	0.35	40	0.00	A	2		17			Asph		30	Good	Local		
	Stauffer Rd NE		Begin Gravel	Dead End	0.35	0.72	0.37	20	0.00	A	2		16			Grav		30		Local		
445	Monnier Rd NE		Whiskey Hill Rd	End Pavement	0	0.03	0.03	120	0.01	A	2		21			Asph		30	Good	Local		
	Monnier Rd NE		End Pavement	End 20' width	0.03	0.3	0.27	60	0.01	A	2		17			Grav		30		Local		
	Monnier Rd NE		Begin 20' width	Brandy Creeek	0.3	0.5	0.20	50	0.00	A	2		17			Grav		30		Local		
	Monnier Rd NE		Brandy Creek	Dead End	0.5	0.75	0.25	20	0.00	A	1		17			Grav		30		Local		
446	Painter Loop NE		Whiskey Hill Rd	Carl Rd	0	0.85	0.85	200	0.01	A	2		20			Asph		40	Very Good	Local		
447	Dunn Rd NE		Whiskey Hill Rd	End Pavement	0	0.03	0.03	130	0.01	A	2		15			Asph		40	Very Good	Local		
	Dunn Rd NE		Begin Gravel	Dead End	0.03	0.38	0.35	60	0.01	A	2		15			Grav		40		Local		
450	Mooney Ave NE		Cessna St NE	Piper St NE	0	0.05	0.05	80	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Local		
451	Piper St NE		Mooney Ave NE	Hwy 51	0	0.1	0.10	100	0.01	A	2	5	20	5	Grav	Asph	Grav	50	Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
452	Meadow Dr NE		Arndt Rd NE	Warbler Ln	0	0.21	0.21	1270	0.06	A	2		33			Asph		60	Good	Local		
453	Robin St NE		Meadow Dr NE	Dead End	0	0.02	0.02	10	0.00	A	2		33			Asph		60	Fair	Local		
454	Floral Ct NE		Cul De Sac	Wisteria Dr NE	0	0.03	0.03	40	0.00	A	2		34			Asph		50	Very Good	Local		
	Floral Ave NE		Wisteria Dr NE	Cul De Sac	0.03	0.14	0.11	90	0.00	A	2		34			Asph		60	Very Good	Local	X	X
455	Azalea Ct NE		Wisteria Dr NE	Cul De Sac	0	0.02	0.02	40	0.00	A	2		34			Asph		50	Very Good	Local		
456	Chalet Ct NE		Wisteria Dr NE	Cul De Sac	0	0.02	0.02	40	0.00	A	2		34			Asph		50	Very Good	Local		
457	Camellia Ct NE		Wisteria Dr NE	Cul De Sac	0	0.04	0.04	50	0.00	A	2		34			Asph		50	Very Good	Local		
458	Camellia Ave NE		Wisteria Dr NE	Cul De Sac	0	0.1	0.10	100	0.00	A	2		34			Asph		60	Very Good	Local	X	X
459	Carissa Ave NE		Wisteria Dr NE	Cul De Sac	0	0.1	0.10	90	0.00	A	2		34			Asph		60	Very Good	Local	X	X
460	Wisteria Dr NE		Boones Ferry Rd	Erica Dr NE	0	0.54	0.54	700	0.03	A	2		34			Asph		60	Very Good	Local	X	X
	Wisteria Ct NE		Erica Dr NE	Cul De Sac	0.54	0.6	0.06	60	0.00	A	2		34			Asph		50	Very Good	Local	X	X
461	Landura Ct NE		Painter Loop	Cul De Sac	0	0.07	0.07	30	0.00	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
462	Lilac Ln NE		Wisteria Dr NE	Dead End	0	0.03	0.03	20	0.00	A	2		34			Asph		60	Very Good	Local	X	X
463	Laurel Ave NE		Wisteria Dr NE	Cedar Ct NE	0	0.11	0.11	110	0.00	A	2		34			Asph		60	Very Good	Local	X	X
464	Erica Dr NE		Laurel Ave NE	Wisteria Dr	0	0.08	0.08	200	0.01	A	2		34			Asph		50	Very Good	Local	X	X
	Erica Dr NE		Wisteria Dr	End	0.08	0.3	0.22	90	0.00	A	2		34			Asph		50	Very Good	Local	X	X
465	Heather Ln NE		Erica Dr NE	Cul De Sac	0	0.07	0.07	60	0.00	A	2		34			Asph		50	Very Good	Local		
466	Brookside Dr NE		Boones Ferry Rd	Dead End	0	0.24	0.24	50	0.00	A	2	4	20	4	Grav	Asph	Grav	60	Good	Local		
467	Tilia Ct NE		Wisteria Dr NE	Cul De Sac	0	0.03	0.03	40	0.00	A	2		34			Asph		50	Very Good	Local		
468	Maple Leaf Ct NE		Boones Ferry Rd	Cul De Sac	0	0.38	0.38	140	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
469	Lakewood Dr NE		Grim Rd NE	Elk Lake Way NE	0	0.36	0.36	400	0.02	A	2		34			Asph		50 - 60	Good	Local	X	X
470	Elk Lake Way NE		Lakewood Dr NE	Aspen Way NE	0	0.06	0.06	100	0.00	A	2		34			Asph		60	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
471	Goose Lake Dr NE		Lakewood Dr NE	Aspen Way NE	0	0.06	0.06	240	0.01	A	2		34			Asph		60	Very Good	Local		
472	Aspen Ct NE		Elk Lake Way	Cul De Sac	0	0.03	0.03	40	0.00	A	2		34			Asph		45 ad)	Very Good	Local		
473	Aspen Way NE		Elk Lake Way	Goose Lake Dr	0	0.15	0.15	120	0.01	A	2		34			Asph		60	Very Good	Local		
474	Daiquiri Lake Dr NE		Aspen Way NE	Dead End	0	0.03	0.03	40	0.00	A	2		34			Asph		60	Very Good	Local		
475	Warbler Ln NE		Meadow Dr NE	Warbler Ln	0	0.14	0.14	520	0.02	A	2		40			Asph		60	Very Good	Local	X	X
501	Mahony Rd NE		River Rd NE	French Prairie Rd	0	4.01	4.01	340	0.02	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Local		
502	Marthaler Rd NE		River Rd NE	French Prairie Rd	0	2.46	2.46	330	0.03	A	2		18			Grav		40		Local		
502 A	Blivens Ln NE		Marthaler Rd NE	Dead End	0	0.45	0.45	40	0.00	A	2		13			Grav		30		Local		
504	Matheny Rd		Wheatland Rd	Wheatland Ferry Landing	0	0.51	0.51	880	0.05	A	2		20			Asph		60	Good	Maj. Collector		
505	Crosby Rd NE		Arbor Grove Rd	Sleepy Hollow Rd	0	0.59	0.59	700	0.03	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
	Crosby Rd NE		Sleepy Hollow Rd	Butteville Rd	0.59	1.6	1.01	1000	0.05	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
	Crosby Rd NE		Butteville Rd	I-5 OverXing	1.6	2.5	0.90	2100	0.09	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Crosby Rd NE		I-5 OverXing	Boones Ferry Rd	2.5	3.2	0.70	3000	0.15	B	2	5	20	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Crosby Rd NE		Boones Ferry Rd	Woodburn-Hubbard Rd	3.2	4.18	0.98	1300	0.08	A	2	5	19	5	Grav	Asph	Grav	60	Good	Min. Collector		
505 A	Harmony Ln NE		Crosby Rd NE	Dead End	0	0.1	0.10	20	0.00	A	2		20			Asph		40		Local		
505 B			Crosby Rd NE	Dead End (Co. Shop)	0	0.25	0.25	20	0.00	A	2		18			Asph		40		Local		
506	Hovenden Ln NE		Boones Ferry Rd	150 ft W of Boones Ferry R	0	0.03	0.03	30	0.00	A	2		20			Asph		40		Local		
506	Hovenden Ln NE		150 ft W of Boones Ferry F	End Gravel	0.03	0.29	0.26	20	0.00	A	2		15			Grav		40		Local		
	Hovenden Ln NE		End Gravel	Dead End	0.29	0.9	0.61	10	0.00	A	1		8			Unimpr		40		Local		
508	Mountain View Ln NE		Crosby Rd NE	Dead End	0	0.48	0.48	90	0.01	A	2		20			Grav		40		Local		
509	Leary Rd NE		Hwy 214	Dead End	0	0.42	0.42	60	0.01	A	2		18			Grav		30		Local		
510	Stafney Ln NE		Butteville Rd	175 ft W of Butteville Rd	0	0.03	0.03	80	0.00	A	2		17			Asph		40		Local		
	Stafney Ln NE		175 ft W of Butteville Rd	Private Rd	0.03	0.41	0.38	60	0.01	A	2		18			Grav		40		Local		
511	Arney Rd NE		Woodburn City Limits	Woodburn UGB	0.48	0.6	0.12	1000	0.06	A	2	1	18	1	Grav	Asph	Grav	40	Good	Urb. Local		
	Arney Rd NE		Woodburn UGB	Crosby Rd	0.6	1.68	1.08	830	0.05	A	2	1	18	1	Grav	Asph	Grav	40	Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
511 A	Vanderbeck Ln		Boones Ferry Rd	Woodburn City Limits	0	0.32	0.32	10	0.00	A	1		10			Grav		40		Urb. Local		
513	Country Club Rd NE		Boones Ferry Rd NE	Woodburn City Limits	0	0.28	0.28	2500	0.11	A	2	5	24	5	Grav	Asph	Grav	60	Good	Urb. Local		
517	Parr Rd NE		Butteville Rd	Stubb Rd	0	1.07	1.07	1430	0.08	A	2		20			Asph		60	Good	Min. Collector		
	Parr Rd NE	Woodburn	Stubb Rd	Front St	1.07	1.79	0.72	1700	0.09	A	2		20			Asph		60	Good	Urb. Maj. Collector		
517 A	Stubb Rd NE		Parr Rd NE	Dead End	0	0.29	0.29	50	0.00	A	2		14			Grav		30		Urb. Local		
518	Le Brun Rd NE		French Prairie Rd	End Pavement	0	0.03	0.03	190	0.01	A	2		18			Asph		40	Poor	Local		
	Le Brun Rd NE		Begin Gravel	End Gravel	0.03	1.22	1.19	150	0.01	A	2		20			Grav		40		Local		
	Le Brun Rd NE		Begin Pavement	Manning Rd	1.22	1.25	0.03	180	0.01	A	2		21			Asph		60	Fair	Local		
	Le Brun Rd NE		Manning Rd	End Pavement	1.25	1.28	0.03	180	0.01	A	2		19			Asph		60	Poor	Local		
	Le Brun Rd NE		Begin Gravel	End Gravel	1.28	3.03	1.75	150	0.01	A	2		20			Grav		60		Local		
	Le Brun Rd NE		Begin Pavement	Butteville Rd	3.03	3.07	0.04	200	0.01	A	2		20			Asph		60	Fair	Local		
519	Ferschweiler Ln NE		Manning Rd NE	Dead End	0	0.39	0.39	30	0.00	A	2		15			Grav		32 - 42		Local		
520	Dorion Ln NE		Manning Rd NE	Dead End	0	0.21	0.21	10	0.00	A	1		14			Grav		40		Local		
521	Tesch Ln NE		St Louis Rd NE	Private Rd	0	0.35	0.35	120	0.01	A	2		18			Asph		60		Local		
522	Jensen Rd NE		#2798 Jensen Rd	Butteville Rd	0.53	1.14	0.61	370	0.02	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
522 A	Jensen Rd NE		St. Louis Rd	#2798 Jensen Rd	0	0.53	0.53	10	0.00	A	2		27			Asph		60	Good	Local		
523	Keene Rd NE		River Rd	Manning Rd NE	0	1.27	1.27	300	0.02	A	2		20			Asph		60	Good	Local		
524	Keene Rd NE		Hwy 99E	Manning Rd NE	0	2.86	2.86	320	0.02	A	2	2	19	2	Grav	Asph	Grav	60	Good	Local		
	Manning Rd NE		Keene Rd NE	St. Louis Rd	2.86	3.5	0.64	360	0.02	A	2	2	19	2	Grav	Asph	Grav	60	Very Good	Local		
526	Concomly Rd NE		River Rd NE	Hwy 99E	0	3.59	3.59	500	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
526 A	Runcorn Rd NE		River Rd NE	150 ft E of River Rd	0	0.03	0.03	80	0.00	A	2		20			Asph		40		Local		
	Runcorn Rd NE		150 ft E of River Rd	150 ft E of Concomly Rd	0.03	1	0.97	60	0.01	A	2		16			Grav		40		Local		
	Runcorn Rd NE		150 ft E of Concomly Rd	Concomly Rd NE	1	1.03	0.03	60	0.00	A	2		22			Asph		40		Local		
527	Jones Rd NE		Hwy 99E	Dead End	0	0.35	0.35	60	0.00	A	2	1	18	1	Grav	Asph	Grav	30	Fair	Local		
528	Ingalls Ln NE		Hwy 99E	Dead End	0	0.64	0.64	20	0.00	A	2		20			Grav		30		Local		
529	Dimmick Ln NE		Hwy 99E	Dead End	0	0.5	0.50	50	0.00	A	2		17			Grav		40		Local		

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530	Goudy Gardens Ln		Hwy 99E	Dead End	0	0.41	0.41	60	0.01	A	2		17			Grav		40		Local		
531	Carl Rd NE		Hwy 99E	End Pavement	0	1.48	1.48	900	0.05	A	2	3	20	3	Grav	Asph	Grav	40	Very Good	Local		
	Carl Rd NE		Begin Gravel	End Gravel	1.48	2.72	1.24	200	0.02	A	2		20			Grav		40		Local		
	Carl Rd NE		Begin Pavement	Painter Loop Rd	2.72	2.74	0.02	160	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Shank Rd NE		Painter Loop Rd	Whiskey Hill Rd	2.74	3.21	0.47	230	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
532	Pudding River Rd NE		Killiam Rd NE	Hwy 211	0	0.13	0.13	560	0.03	A	2	5	22	5	Grav	Asph	Grav	40	Good	Local		
	Pudding River Rd NE		Hwy 211	End 2 lanes	0.13	0.22	0.09	80	0.00	A	2		21			Asph		40		Local		
	Pudding River Rd NE		Begin 1 lane	End Gravel	0.22	0.87	0.65	30	0.00	A	1		14			Grav		40		Local		
	Pudding River Rd NE		End Gravel	Dead End	0.73	1.43	0.70	10	0.00	A	1		10			Unimpr		40		Local		
534	E Hardcastle Rd NE		Woodburn City Limits	Cooley Rd	0.33	0.38	0.05	1000	0.05	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Local		
	E Hardcastle Rd NE		Cooley Rd	Dead End	0.38	0.76	0.38	20	0.00	A	2	1	14	1	Grav	Asph	Grav	30		Local		
534 A	Cooley Rd NE		E Hardcastle Rd NE	Hwy 211	0	0.54	0.54	1200	0.06	A	2	3	20	3	Grav	Asph	Grav	60		Urb. Local		
534 B	Meadow Ln NE		Cooley Rd NE	45 degree curve	0	0.38	0.38	180	0.01	A	2		21			Asph		30		Local		
	Meadow Ln NE		45 degree curve	Dead End	0.38	0.7	0.32	60	0.00	A	2		21			Asph		30		Local		
536	E Lincoln Rd NE		Woodburn UGB	End Pavement	0.29	1.37	1.08	280	0.02	A	1		18			Asph		30 - 40	Very Good	Local		
538	Serres Ln NE		Hwy 214	Dead End	0	0.31	0.31	40	0.00	A	2		18			Grav		30		Local		
539	Union School Rd NE		Hwy 214	Kiliam Rd NE	0	1.8	1.80	380	0.02	A	2		20			Asph		60	Good	Local		
539 A	Kiliam Loop NE		Kiliam Rd NE	205 ft E of Union School Rd	0	0.72	0.72	80	0.01	A	2		16			Grav		60		Local		
	Kiliam Loop NE		205 ft E of Union School R	Union School Rd	0.72	0.76	0.04	80	0.00	A	2		19			Asph		60		Local		
540	Belle Passi Rd NE		Boones Ferry Rd	Hwy 99E	0	0.81	0.81	450	0.02	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
541	Miller Rd NE		Monitor-McKee Rd	146 ft N of Monitor-McKee	0	0.03	0.03	270	0.01	A	2		21			Asph		30		Local		
	Miller Rd NE		146 ft N of Monitor-McKee	Geschwill Ln	0.03	0.66	0.63	200	0.02	A	2		20			Grav		30		Local		
541 A	Kahut Ln NE		Miller Rd NE	End Gravel	0	0.83	0.83	40	0.00	A	2		19			Grav		30		Local		
	Kahut Ln NE		End Gravel	Dead End	0.83	0.91	0.08	10	0.00	A	1		10			Dirt		30		Local		
541 B	Geschwill Ln NE		Hwy 99E	Miller Rd NE	0	0.35	0.35	200	0.01	A	2		20			Asph		30	Very Good	Local		
543	Monitor-McKee Rd		Howell Prairie	Miller Rd NE	0	0.66	0.66	1400	0.08	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Monitor-McKee Rd		Miller Rd NE	Baron Rd NE	0.66	2.3	1.64	1200	0.07	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		

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	Monitor-McKee Rd		Baron Rd NE	Hwy 214	2.3	4.32	2.02	870	0.06	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Monitor-McKee Rd		Hwy 214	Woodburn-Monitor Rd	4.32	5.82	1.50	500	0.03	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
543 A	Leah Ln NE		Monitor-McKee Rd	197 ft N of Monitor McKee	0	0.04	0.04	80	0.01	A	2		17			Asph		40	Good	Local		
	Leah Ln NE		197 ft N of Monitor McKee	115 ft S of Woodburn Monit	0.04	0.35	0.31	40	0.00	A	2		20			Grav		40	Good	Local		
	Leah Ln NE		115 ft S of Woodburn Moni	Woodburn-Monitor Rd	0.35	0.37	0.02	60	0.00	A	2		20			Asph		40		Local		
544	McKee School Rd NE		Monitor-McKee Rd	Hwy 214	0	1.82	1.82	620	0.03	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
544 A	Beyer Ln NE		McKee School Rd	90 degree curve	0	0.25	0.25	30	0.00	A	2		16			Grav		30		Local		
	Beyer Ln NE		90 degree curve	Dead End	0.25	0.37	0.12	10	0.00	A	1		15			Grav		30		Local		
545	Miller Rd NE		Mt. Angel-Gervais Rd	105 ft N of Mt. Angel-Gerva	0	0.02	0.02	200	0.01	A	2		20			Asph		40		Local		
	Miller Rd NE		105 ft N of Mt. Angel-Gerva	145 ft S of Monitor McKee	0.02	1.44	1.42	150	0.01	A	2		19			Grav		40		Local		
	Miller Rd NE		145 ft S of Monitor McKee	Monitor McKee Rd	1.44	1.47	0.03	290	0.02	A	2		20			Asph		40	Very Good	Local		
545 A	Nosak Ln NE		Miller Rd	Dead End	0	0.6	0.60	20	0.00	A	1		12			Grav		30		Local		
546	Howell-Prairie Rd NE		Mt. Angel-Gervais Rd	Hwy 99E	0	1.76	1.76	2200	0.12	B	2	2	20	2	Grav	Asph	Grav	60	Good	Maj. Collector		
547	Bonney Rd NE		Woodburn-Monitor Rd	Road narrows	0	0.35	0.35	40	0.00	A	2		16			Grav		30		Local		
	Bonney Rd NE		Road narrows	Dead End	0.35	0.52	0.17	20	0.00	A	2		14			Grav		30		Local		
548	Baron Rd NE		Dominic Rd	End Pavement	0	0.03	0.03	210	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Baron Rd NE		Begin Gravel	End Gravel	0.03	1.64	1.61	120	0.01	A	2		20			Grav		40		Local		
	Baron Rd NE		Begin Pavement	Monitor-McKee Rd	1.64	1.78	0.14	180	0.01	A	2	2	15	2	Grav	Asph	Grav	40	Fair	Local		
549	Dominic Rd NE		Mt. Angel-Gervais Rd	Hwy 214	0	1	1.00	660	0.04	A	2		20			Asph		40	Very Good	Local		
	Dominic Rd NE		Hwy 214	Meridian Rd	1	3.3	2.30	1250	0.07	A	2	2	20	2	Grav	Asph	Grav	50	Fair	Local		
	Dominic Rd NE		Meridian Rd	Wagon Rd	3.3	3.87	0.57	400	0.02	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Local		
549 A	Bull Run Rd NE		Dominic Rd NE	Dead End	0	0.27	0.27	20	0.00	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		
551	Koener Rd NE		Hwy 214	Dead End	0	0.23	0.23	20	0.00	A	1		13			Grav		40		Local		
552	Elliot Prairie Rd NE		Hwy 214	Beg. Bridge	0	1.33	1.33	630	0.04	A	2	2	18	2	Grav	Asph	Grav	40	Very Good	Local		
552 A	Hitz Ln NE		Elliot Prairie Rd	Dead End	0	0.42	0.42	20	0.00	A	2		14			Grav		60		Local		
601	Jason Lee Rd		Wheatland Rd	Dead End	0	0.38	0.38	10	0.00	A	1		12			Unimpr		30		Local		
602	Waconda Rd NE		Wheatland Rd	River Rd NE	0	2.21	2.21	510	0.03	A	2	1	19	1	Grav	Asph	Grav	50	Very Good	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Waconda Rd NE		River Rd NE	I-5 OverXing	2.21	2.96	0.75	840	0.04	A	2	1	22	1	Grav	Asph	Grav	60	Good	Min. Collector		
	Waconda Rd NE		I-5 OverXing	50th Ave NE	2.96	3.25	0.29	860	0.04	A	2	5	22	5	Grav	Asph	Grav	60	Good	Min. Collector		
	Waconda Rd NE		50th Ave NE	Hwy 99E	3.25	4.54	1.29	1020	0.05	A	2	3	22	3	Grav	Asph	Grav	60	Good	Min. Collector		
602 A	45th Ave NE		Waconda Rd NE	Pavement Ends	0	0.25	0.25	20	0.00	A	2		16			Asph		30		Local		
	45th Ave NE		Pavement Ends	Dead End	0.25	0.59	0.34	10	0.00	A	2		16			Grav		30		Local		
603	Salmon St N		Ravena Dr N	End of Pavement	0	0.03	0.03	130	0.01	A	2		18			Asph		40		Local		
	Salmon St N		End of Pavement	4th Ave	0.03	1.01	0.98	140	0.01	A	2		20			Grav		40		Local		
	4th Ave N		Salmon St N	Trout St N	0.15	1.01	0.86	160	0.02	A	2		18			Grav		40		Local		
	Trout St N		4th Ave N	Begin Pavement	1.01	1.47	0.46	140	0.01	A	2		17			Grav		40		Local		
	Trout St N		Begin Pavement	Wheatland Rd	1.47	1.6	0.13	150	0.01	A	2		18			Asph		40	Fair	Local		
604	Windsor Island Rd N		Naples St N	Bridge (Clear Lake)	0	2.25	2.25	720	0.04	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	Windsor Island Rd N		Bridge (Clear Lake)	Simon St N	2.25	3.13	0.88	600	0.03	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Local		
	Simon St N		Windsor Island Rd N	9th Ave N	3.13	3.38	0.25	600	0.04	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
	9th Ave N		Simon St N	Salmon St N	3.38	3.53	0.15	620	0.04	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
	Salmon St N		9th Ave N	Ravena Dr N	3.53	4.07	0.54	640	0.04	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
	Ravena Dr N		Salmon St N	Wheatland Rd	4.07	5.2	1.13	660	0.04	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
604 A	Simon St N		Windsor Island Rd N	End of Pavement	0	0.03	0.03	20	0.00	A	2		18			Asph		50		Local		
	Simon St N		End of Pavement	Windsor Island Rd N	0.03	0.62	0.59	20	0.00	A	1		17			Grav		50		Local		
605	Naples St N		Windsor Island Rd N	22nd Ave N	0	0.68	0.68	450	0.02	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Local		
	22nd Ave N		Naples St N	Dead End	0	1.58	1.58	100	0.01	A	2	2	20	2	Grav	Grav	Grav	60	Very Good	Local		
606	Egan St NE		River Rd NE	End Pavement	0	0.02	0.02	90	0.01	A	1		18			Grav		40		Local		
	Egan St NE		End of Pavement	Dead End	0.02	0.2	0.18	40	0.00	A	1		16			Grav		40		Local		
608	54th Ave NE		Hwy 99E	Tacoma St NE	0	0.31	0.31	260	0.01	A	2		20			Asph		40	Very Good	Local		
	Tacoma St NE		54th Ave NE	52nd Ave NE	0.31	0.47	0.16	210	0.01	A	2		20			Asph		40	Very Good	Local		
	52nd Ave NE		Tacoma St NE	Tango St NE	0.47	0.57	0.10	170	0.01	A	2		20			Asph		40	Very Good	Local		
	Tango St NE		52nd Ave NE	50th Ave NE	0.57	0.74	0.17	200	0.01	A	2		20			Asph		40	Very Good	Local		
	50th Ave NE		Tango St NE	Waconda Rd NE	0.74	1.7	0.96	500	0.03	A	2	3	20	3	Grav	Asph	Grav	40	Very Good	Local		
609	Brooklake Rd NE		Wheatland Rd	River Rd NE	0	1.07	1.07	2460	0.13	B	2	2	28	2	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Brooklake Rd NE		River Rd NE	Huff Ave NE	1.07	1.55	0.48	8000	0.35	C	2	2	28	2	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Brooklake Rd NE		Huff Ave NE	West of Interchange	1.55	1.78	0.23	10400	0.48	D	2	3	28	3	Grav	Asph	Grav	60	Very Good	Co. Arterial		
	Brooklake Rd NE		West of Interchange	East of Interchange	1.78	2.09	0.31	12600	0.54	D	2	5	36	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Brooklake Rd NE		End I-5 OverXing	SPRR Xing	2.09	2.46	0.37	8200	0.30	C	2	5	28	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
610	Richland Dr NE		Brooklake Rd NE	End Pavement	0	0.06	0.06	100	0.01	A	2	2	21	2	Grav	Asph	Grav	44	Very Poor	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Richland Dr NE		Begin Gravel	Private Rd	0.06	0.16	0.10	30	0.00	A	2		20			Grav		44		Local		
610 A	Richland Ave NE		Brooklake Rd NE	Dead End	0	0.23	0.23	50	0.01	A	1		12			Grav		30		Local		
611	Rockdale St N		Hwy 99E	Pueblo Ave NE	0	0.21	0.21	350	0.01	A	2	5	34	5	Asph	Asph	Asph	60	Very Good	Local		X
	Pueblo Ave NE		Rockdale St N	Riverton Rd	0.21	0.25	0.04	350	0.01	A	2	5	32	5	Asph	Asph	Asph	60	Fair	Local		
	Pueblo Ave NE		Riverton Rd	Brooklake Rd	0.25	0.31	0.06	350	0.02	A	2	3	34	3	Grav	Asph	Grav	60	Poor	Local		
	Pueblo Ave NE		Brooklake Rd	Private Rd	0.31	0.43	0.12	300	0.01	A	2	3	22	3	Grav	Asph	Grav	60	Poor	Local		
611 A	Riverton St NE		Pueblo Ave NE	Hwy 99E	0	0.2	0.20	250	0.01	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Local		
613	Clear Lake Rd		Keizer City Limits	River Rd NE	0.55	1.03	0.48	1700	0.08	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
	Quinaby Rd		River Rd NE	35th Ave NE	1.03	1.57	0.54	1250	0.06	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
	Quinaby Rd		35th Ave NE	Begin I-5 Overcrossing	1.57	1.82	0.25	1150	0.06	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
	Quinaby Rd		Begin I-5 Overcrossing	End I-5 Overcrossing	1.82	2.19	0.37	1100	0.04	A	2	8	24	8	Asph	Asph	Asph	60	Very Good	Local		
	Quinaby Rd		End I-5 Overcrossing	Hwy 99E	2.19	2.71	0.52	1100	0.07	A	2	2	17	2	Grav	Asph	Grav	60	Very Good	Local		
615	Perkins St NE		River Rd NE	W side of I 5	0	1.3	1.30	550	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Perkins St NE		W side of I 5	Hwy 99E	1.3	1.75	0.45	570	0.03	A	2	1	22	1	Grav	Asph	Grav	40	Very Good	Local		
617	Lake Labish Rd NE		Hazelgreen Rd	Labish Gardens Rd NE	0	0.46	0.46	250	0.01	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Urb. Collector		
	Labish Gardens Rd NE		Lake Labish Rd NE	Hwy 99E	0.46	1.26	0.80	230	0.01	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Urb. Collector		
620	Umpqua St NE		Hwy 99E	138 ft E of Hwy 99E	0	0.03	0.03	30	0.00	A	2		21			Asph		30		Local		
	Umpqua St NE		138 ft E of Hwy 99E	Dead End	0.03	0.76	0.73	20	0.00	A	2		17			Grav		30		Local		
621	71st Ave NE		Waconda Rd	Pioneer School	0	0.02	0.02	100	0.01	A	2		18			Asph		40	Poor	Local		
	71st Ave NE		Pioneer School	Wapato St NE	0.02	0.51	0.49	80	0.01	A	2		18			Grav		40		Local		
	Wapato St NE		71st Ave NE	134 ft E of Hwy 99E	0.51	0.73	0.22	100	0.01	A	2		19			Grav		40		Local		
	Wapato St NE		134 ft E of Hwy 99E	Hwy 99E	0.73	0.76	0.03	190	0.01	A	2		20			Asph		40		Local		
622	Wabash Dr NE		Hwy 99E	Howell Prairie Rd	0	2.75	2.75	180	0.01	A	2		22			Asph		40	Very Good	Local		
623	Duck Inn Rd NE		Waconda Rd NE	Hwy 99E	0	1.92	1.92	300	0.02	A	2	1	19	1	Grav	Asph	Grav	40	Good	Local		
624	75th Ave NE		Rambler Dr NE	Sequoia St NE	0	0.8	0.80	350	0.02	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Sequoia St NE		75th Ave NE	72nd Ave NE	0.8	1.07	0.27	310	0.02	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	72nd Ave NE		Sequoia St NE	Waconda Rd NE	1.07	2.42	1.35	400	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
624 A	Stratford Dr NE		72nd Ave NE	82nd Ave NE	0	1.06	1.06	150	0.01	A	2		20			Grav		30		Local		
	82nd Ave NE		Stratford Dr NE	Roanoke Dr NE	1.06	1.26	0.20	60	0.01	A	2		16			Grav		30		Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
625	Roanoke Dr NE		75th Ave NE	End of Pavement	0	0.02	0.02	110	0.01	A	2		21			Asph		40		Local		
	Roanoke Dr NE		End of Pavement	Beginning of Pavement	0.02	0.8	0.78	100	0.01	A	2		20			Grav		40		Local		
	Roanoke Dr NE		Beginning of Pavement	86th Ave NE	0.8	1.38	0.58	100	0.01	A	2		19			Asph		40	Very Good	Local		
	86th Ave NE		Roanoke Dr NE	Waconda Rd	1.38	2.42	1.04	300	0.02	A	2		19			Asph		40	Very Good	Local		
626	Lakeside Dr NE		Hwy 99E	.24 mi from Brooklake Rd	0	3.25	3.25	420	0.03	A	2	1	19	1	Grav	Asph	Grav	60	Very Good	Local		
	Lakeside Dr NE		.24 mi from Brooklake Rd	Brooklake Rd NE	3.25	3.49	0.24	320	0.02	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
	Lakeside Dr NE		Brooklake Rd NE	Rochester St NE	3.49	4	0.51	250	0.02	A	2	1	18	1	Grav	Asph	Grav	40	Very Good	Local		
	Rochester St NE		Lakeside Dr NE	67th Ave NE	4	4.64	0.64	160	0.01	A	2	1	18	1	Grav	Asph	Grav	40	Very Good	Local		
	67th Ave NE		Rochester St NE	Brooklake Rd NE	4.64	5.15	0.51	180	0.02	A	2	1	18	1	Grav	Grav	Grav	40	Very Good	Local		
	Brooklake Rd NE		67th Ave NE	65th Ave NE	5.15	5.43	0.28	220	0.01	A	2	1	18	1	Grav	Asph	Grav	40	Very Good	Local		
627	59th Ave NE		Brooklake Rd NE	End Pavement	0	0.07	0.07	70	0.00	A	2		20			Asph		40	Good	Local		
	59th Ave NE		Begin Gravel	Dead End	0.07	0.87	0.80	30	0.00	A	2		16			Grav		40		Local		
628	55th Ave NE		Hazelgreen Rd NE	Lakeside Dr	0	1.43	1.43	1920	0.10	A	2	1	20	1	Grav	Asph	Grav	40	Good	Min. Collector		
	54th Ave NE		Lakeside Dr	Quail St NE	1.43	2.11	0.68	1360	0.09	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Quail St NE		54th Ave NE	Hwy 99E	2.11	2.74	0.63	1300	0.07	A	2	1	20	1	Grav	Asph	Grav	50	Good	Min. Collector		
628 A	55th Ave NE		Juniper St NE	Cordon Rd NE	0	0.42	0.42	130	0.01	A	2		18			Grav		30	Very Good	Local		
629	72nd Ave NE		Indigo St	Silverton Rd	0	0.23	0.23	40	0.00	A	2		18			Asph		40		Local		
	72nd Ave NE		Silverton Rd	Linnet St NE	0.23	1.07	0.84	180	0.01	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
	Linnet St NE		72nd Ave NE	75th Ave NE	1.07	1.37	0.30	300	0.02	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
	75th Ave NE		Linnet St NE	Hazelgreen Rd	1.37	1.77	0.40	400	0.03	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
	75th Ave NE		Hazelgreen Rd	Nutmeg St NE	1.77	2.43	0.66	720	0.05	A	2	1	19	1	Grav	Asph	Grav	50	Good	Local		
	Nutmeg St NE		75th Ave NE	74th Ave NE	2.43	2.56	0.13	700	0.04	A	2	1	19	1	Grav	Asph	Grav	50	Good	Local		
	74th Ave NE		Nutmeg St NE	Labish Center Rd	2.56	3.24	0.68	700	0.04	A	2	1	19	1	Grav	Asph	Grav	50	Good	Local		
630	66th Ave NE		Juniper St NE	End of Pavement	0	0.02	0.02	70	0.00	A	2		18			Asph		30		Local		
	66th Ave NE		End of Pavement	Pudding Bridge Pave	0.02	0.67	0.65	60	0.01	A	2		18			Grav		30		Local		
	66th Ave NE		S of Little Pudding Bridge	N of Little Pudding Bridge	0.67	0.73	0.06	50	0.00	A	2		21			Asph		30		Local		
	66th Ave NE		Pudding Bridge Pave	Beginning of Pavement	0.73	1.05	0.32	70	0.01	A	2		20			Grav		30		Local		
	66th Ave NE		Beginning of Pavement	Hazelgreen Rd	1.05	1.08	0.03	100	0.01	A	2		19			Asph		30		Local		
631	82nd Ave NE		Labish Center Rd	Ramber Dr NE	0	1.06	1.06	60	0.01	A	2		18			Grav		40		Local		
632	114th Ave NE		Saratoga Dr	West Church Rd NE	0	0.19	0.19	800	0.05	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Min. Collector		
	West Church Rd NE		114th Ave NE	Mt. Angel UGB	0.19	0.93	0.74	850	0.05	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Min. Collector		
	West Church Rd NE		Mt. Angel UGB	Mt. Angel City Limits	0.93	1.37	0.44	830	0.05	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Urb. Min. Collector		
632 A	114th Ave NE		West Church Rd NE	Waypark Dr NE	0	0.29	0.29	350	0.03	A	2		22			Grav		40	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Waypark Dr NE		114th Ave NE	Howell Prairie Rd	0.29	2.63	2.34	450	0.02	A	2		22			Asph		40	Very Good	Local		
633	North Howell Rd NE		Nusom Rd NE	Saratoga Dr	0	1.05	1.05	290	0.02	A	2	1	19	1	Grav	Asph	Grav	50	Very Good	Local		
634	Labish Center Rd NE		72nd Ave NE	82nd Ave NE	0	1.06	1.06	580	0.03	A	2	1	22	1	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Labish Center Rd NE		82nd Ave NE	Howell Prairie Rd	1.06	2.07	1.01	480	0.03	A	2	1	22	1	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Nusom Rd NE		Howell Prairie Rd	Torvend Rd NE	2.07	3.9	1.83	730	0.04	A	2	3	19	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Nusom Rd NE		Torvend Rd NE	Mt. Angel Hwy	3.9	5.22	1.32	660	0.04	A	2	3	18	3	Grav	Asph	Grav	50	Very Good	Min. Collector		
635	Scism Rd NE		Hazelgreen Rd	Nuson Rd NE	0	2.02	2.02	130	0.01	A	2		22			Asph		40	Very Good	Local		
636	Blue Grass Ln NE		Silverton Rd	Hazelgreen Rd	0	1.31	1.31	460	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
637	80th Ave NE		Hazelgreen Rd	Nutmeg St NE	0	0.55	0.55	40	0.00	A	1		16			Grav		30		Local		
638	Torvend Rd NE		Hazelgreen Rd	Nusom Rd NE	0	2.05	2.05	150	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
638 A	Mohawk St NE		Torvend Rd NE	Dead End	0	0.51	0.51	10	0.00	A	1		15			Grav		30		Local		
638 B	Lakota Ln		Torvend Rd NE	Dead End	0	0.37	0.37	10	0.00	A	1		15			Grav		30		Local		
639	Brush Creek Dr NE		Silverton Rd	Hazelgreen Rd	0	1.18	1.18	1750	0.09	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Maj. Collector		
	Brush Creek Dr NE		Hazelgreen Rd	Dahl St NE	1.18	2.07	0.89	150	0.01	A	2		18			Grav		40		Local		
639 A	Dahl St NE		Mt. Angel Hwy	Overlund Rd NE	0	0.43	0.43	80	0.01	A	2		20			Grav		40		Local		
	Dahl St NE		Overlund Rd NE	Dead End	0.43	0.83	0.40	20	0.00	A	2		20			Grav		30		Local		
639 B	Overlund Rd NE		Dahl St NE	Mt. Angel Hwy	0	1.18	1.18	40	0.00	A	2		16			Grav		33		Local		
640	Marquam Rd NE	Mt. Angel	Hwy 214	Garfield St	0	0.05	0.05	1300	0.07	A	2		20			Asph		50		Urb. Maj. Collector		
	Marquam Rd NE	Mt. Angel	Garfield St	Mt. Angel City Limits	0.48	0.52	0.04	1300	0.07	A	2		20			Asph		50		Urb. Maj. Collector		
	Marquam Rd NE		Mt. Angel City Limits	Boehmer Rd	0.52	1.66	1.14	1150	0.06	A	2		20			Asph		50	Very Good	Min. Collector		
	Marquam Rd NE		Boehmer Rd	Meridian Rd	1.66	2.67	1.01	860	0.05	A	2		20			Asph		50	Very Good	Min. Collector		
	Marquam Rd NE		Meridian Rd	Wagon Rd	2.67	3.75	1.08	400	0.03	A	2		19			Asph		50	Good	Local		
	Drake Rd NE		Wagon Rd	Clackamas Co. Line	3.75	4.03	0.28	400	0.03	A	2		19			Asph		50	Very Good	Local		
640 A	Boehmer Rd NE		Marquam Rd NE	165 ft N of Marquam Rd	0	0.03	0.03	100	0.01	A	2		20			Asph		50		Local		
	Boehmer Rd NE		165 ft N of Marquam Rd	South End of Bridge	0.03	0.25	0.22	100	0.01	A	2		21			Grav		50		Local		
	Boehmer Rd NE		South End of Bridge	North End of Bridge	0.25	0.29	0.04	100	0.01	A	2		22			Asph		50		Local		
	Boehmer Rd NE		North End of Bridge	95 ft South of Dominic Rd	0.29	0.98	0.69	120	0.01	A	2		18			Grav		50		Local		
	Boehmer Rd NE		95 ft South of Dominic Rd	Dominic Road	0.98	1	0.02	180	0.01	A	2		22			Asph		50		Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
641	Airport Rd NE		Pine St NE	Dead End	0	0.09	0.09	30	0.00	A	2		19			Asph		50		Urb. Local		
642	Wagon Rd NE		Dominic Rd NE	Drake Rd NE	0	1.1	1.10	430	0.03	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
	Wagon Rd NE		Drake Rd NE	Hwy 213	1.1	2.29	1.19	300	0.03	A	2		22			Grav		40		Local		
642 A	Koster Rd NE		Dominic Rd NE	End of Pavement	0	0.03	0.03	10	0.00	A	2		15			Asph		40		Local		
	Koster Rd NE		End of Pavement	Beginning of Pavement	0.03	0.75	0.72	10	0.00	A	2		18			Grav		40		Local		
	Koster Rd NE		Beginning of Pavement	Meridian Rd	0.75	0.79	0.04	10	0.00	A	2		20			Asph		40		Local		
643	Humpert Ln NE		Hook Rd NE	Mt. Angel City Limits	0	1.18	1.18	380	0.02	A	2		22			Asph		40	Very Good	Local		
	Humpert Ln NE	Mt. Angel	Mt. Angel City Limits	E College Rd	1.18	1.3	0.12	470	0.02	A	2		22			Asph		40	Very Good	Urb. Local		
643 A	Academy St NE	Mt. Angel	Humpert Ln NE	Begin sidewalk	0	0.03	0.03	160	0.01	A	2		34			Asph		40	Very Good	Urb. Local		
	Academy St NE	Mt. Angel	Begin sidewalk	End sidewalk	0.03	0.05	0.02	170	0.01	A	2		34			Asph		40	Very Good	Urb. Local		X
	Academy St NE	Mt. Angel	End sidewalk	Begin sidewalk	0.05	0.09	0.04	170	0.01	A	2		34			Asph		40	Very Good	Urb. Local		
	Academy St NE	Mt. Angel	Begin sidewalk	End Sidewalk	0.09	0.1	0.01	170	0.01	A	2		34			Asph		40	Very Good	Urb. Local		X
	Academy St NE	Mt. Angel	End sidewalk	Buchheit St	0.1	0.13	0.03	180	0.01	A	2		34			Asph		40	Very Good	Urb. Local		
	Academy St NE	Mt. Angel	Buchheit St	Gilles St	0.13	0.2	0.07	180	0.02	A	2		20			Grav		40	Very Good	Urb. Local		
	Academy St NE	Mt. Angel	Gilles St	End sidewalk	0.2	0.28	0.08	180	0.02	A	2		20			Grav		40	Very Good	Urb. Local	X	
	Academy St NE	Mt. Angel	End sidewalk	Leo St	0.28	0.32	0.04	190	0.02	A	2		20			Grav		40	Very Good	Urb. Local		
644	Hook Rd NE		Mt. Angel Hwy	160 ft E of Mt Angel Hwy	0	0.03	0.03	100	0.01	A	2		22		Grav	Asph	Grav	50		Local		
	Hook Rd NE		160 ft E of Mt Angel Hwy	147 ft W of Hwy 214	0.03	0.72	0.69	100	0.01	A	2	2	24	2	Grav	Grav	Grav	50	Very Good	Local		
	Hook Rd NE		147 ft W of Hwy 214	Hwy 214	0.72	0.75	0.03	100	0.00	A	2	2	24	2	Grav	Asph	Grav	50	Very Good	Local		
	Hook Rd NE		Hwy 214	109 ft E of Hwy 214	0.75	0.77	0.02	100	0.00	A	2	2	24	2	Grav	Asph	Grav	50	Very Good	Local		
	Hook Rd NE		109 ft E of Hwy 214	124 ft W of Humpert Ln	0.77	1.21	0.44	110	0.01	A	2	2	22	2	Grav	Grav	Grav	50	Very Good	Local		
	Hook Rd NE		124 ft W of Humpert Ln	Humpert Ln NE	1.21	1.23	0.02	120	0.01	A	2	2	18	2	Grav	Asph	Grav	50	Very Good	Local		
	Hook Rd NE		Humpert Ln NE	Downs Rd NE	1.23	1.57	0.34	420	0.02	A	2	2	22	2	Grav	Asph	Grav	50		Local		
645	May Rd NE		Downs Rd NE	E College Rd	0	0.68	0.68	220	0.01	A	2		19			Asph		40	Very Good	Local		
645 A	Schacher Ln NE		May Rd NE	100 ft W of May Rd	0	0.02	0.02	40	0.00	A	2		20			Asph		40		Local		
	Schacher Ln NE		100 ft W of May Rd	Dead End	0.02	0.54	0.52	20	0.00	A	2		22			Grav		40		Local		
646	Downs Rd NE		Mt. Angel Hwy	Hwy 214	0	0.92	0.92	1050	0.06	A	2	1	20	1	Grav	Asph	Grav	50	Poor	Local		
	Downs Rd NE		Hwy 214	May Rd	0.92	2.74	1.82	1000	0.05	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	Downs Rd NE		May Rd	Meridian Rd	2.74	3.62	0.88	1000	0.05	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	Downs Rd NE		Meridian Rd	Abiqua Rd NE	3.62	3.68	0.06	2400	0.12	B	2	3	22	3	Grav	Asph	Grav	50	Very Good	Maj. Collector		
647	Gallon House Rd NE		Hobart Rd NE	End Pavement	0	0.46	0.46	150	0.01	A	2	2	20	2	Grav	Asph	Grav	50	Good	Local		
	Gallon House Rd NE		Begin Gravel	End Gravel	0.46	1.2	0.74	80	0.01	A	2		22			Grav		50		Local		
	Gallon House Rd NE		Begin Pavement	Downs Rd	1.2	1.22	0.02	110	0.01	A	2		22			Asph		50	Good	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
648	Pershing St NW		Marquam St	End Pavement	0	0.19	0.19	100	0.00	A	2		34			Asph		40		Local		
	Pershing St NW		Begin Gravel	90 degree curve	0.19	0.27	0.08	100	0.01	A	2		19			Grav		40		Local		
	Pershing St NW	Mt. Angel	90 degree curve	Mt. Angel City Limits	0.27	0.68	0.41	100	0.01	A	2		19			Grav		40		Urb. Local		
649	Hobart Rd NE		Mt. Angel Hwy	James St NE	0	1.48	1.48	700	0.05	A	2		19			Asph		60	Very Good	Min. Collector		
	Hobart Rd NE		James St NE	SPRR Xing	1.48	1.54	0.06	1150	0.08	A	2		19			Asph		60	Very Good	Urb. Collector		
	Hobart Rd NE		SPRR Xing	Hwy 214	1.54	1.57	0.03	1150	0.06	A	2		22			Asph		60	Very Good	Urb. Collector		
	Hobart Rd NE		Hwy 214	2nd St	1.57	1.76	0.19	2600	0.15	B	2		22			Asph		60	Fair	Urb. Collector		
649 A	James St NE	Silverton	Florida Dr	Western Ave NE	0.19	0.33	0.14	1750	0.09	A	2	4	20	4	Grav	Asph	Grav	40	Very Good	Urb. Collector		
	James St NE		Western Ave NE	Hobart Rd NE	0.33	0.77	0.44	1700	0.09	A	2	4	20	4	Grav	Asph	Grav	40	Very Good	Urb. Collector		
649 B	Jefferson St NE		James St NE	Hwy 214	0	0.15	0.15	850	0.06	A	2	2	19	2	Grav	Asph	Grav	50	Poor	Urb. Local		
	Jefferson St NE	Silverton	Hwy 214	2nd St	0.15	0.26	0.11	1100	0.08	A	2	2	19	2	Grav	Asph	Grav	50	Poor	Urb. Local		
	Jefferson St NE	Silverton	2nd St	Mill St	0.26	0.48	0.22	700	0.05	A	2	2	18	2	Grav	Asph	Grav	50	Very Good	Urb. Local		
650	Monson Rd NE		Silverton Rd NE	Dead End	0	0.24	0.24	60	0.00	A	2	2	16	2	Grav	Asph	Grav	30	Fair	Urb. Local		
651	Fossholm St NE		Silverton Rd NE	Dead End	0	0.14	0.14	120	0.01	A	2	2	23	2	Grav	Asph	Grav	40	Good	Urb. Local		
653	Quarry Ave NE		Hobart Rd NE	Silverton UGB	0	0.38	0.38	250	0.02	A	2	1	20	1	Grav	Asph	Grav	33	Very Good	Urb. Local		
	Quarry Ave NE		Silverton UGB	Dead End	0.38	0.84	0.46	150	0.01	A	2	1	20	1	Grav	Asph	Grav	33	Very Good	Local		
654	Abiqua Rd NE		Meridian Rd	Hwy 213	0	0.91	0.91	1040	0.06	A	2	1	20	1	Grav	Asph	Grav	50	Good	Min. Collector		
655	Steel Hammer Rd NE	Silverton	Hwy 213	Reserve St NE	0	0.47	0.47	1200	0.08	A	2	1	19	1	Grav	Asph	Grav	60	Very Good	Urb. Local		
	Steel Hammer Rd NE		Reserve St NE	Evans Valley Rd NE	0.47	0.58	0.11	1000	0.06	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Urb. Local		
	Evans Valley Rd NE		Steel Hammer Rd NE	Silverton UGB	0.58	0.92	0.34	1000	0.06	A	2	1	19	1	Grav	Asph	Grav	40 - 50	Good	Urb. Min. Collector		
	Evans Valley Rd NE		Silverton UGB	Valley View Rd	0.92	1.58	0.66	900	0.07	A	2	1	19	1	Grav	Asph	Grav	40 - 50	Good	Min. Collector		
	Evans Valley Loop NE		Valley View Rd	Valley View Rd	1.58	3.55	1.97	250	0.03	A	2		19			Grav		30		Local		
655 B	Valley View Rd		Evans Valley Loop NE	Hwy 213	0	1.45	1.45	480	0.04	A	2	1	19	1	Grav	Asph	Grav	40	Good	Local		
655 C	E Main St	Silverton	Ames St	Steel Hammer Rd NE	0	0.26	0.26	1250	0.07	A	2		20			Asph		80	Fair	Urb. Local		
656	Grant St NE	Silverton	Silverton City Limits	Western Ave NE	0.14	0.3	0.16	550	0.03	A	2	4	19	4	Grav	Asph	Grav	50	Very Good	Urb. Local		
	Grant St NE		Western Ave NE	Dead End	0.3	0.36	0.06	30	0.00	A	2		22			Asph		50	Very Good	Local		
656 A	Western Ave NE	Silverton	Grant St NE	James St NE	0	0.18	0.18	500	0.02	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Urb. Local		
657	S Abiqua Rd		Hwy 213	Davis Cr Rd NE	0	0.91	0.91	1170	0.05	A	2	3	28	3	Grav	Asph	Grav	60	Very Good	Min. Collector		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	S Abiqua Rd		Davis Cr Rd NE	Abiqua Rd NE	0.91	3.64	2.73	720	0.04	A	2	3	19	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
658	Porter Rd NE		Hwy 214	134 ft S of Powers Creek Lp	0	0.65	0.65	80	0.01	A	2		20			Grav				Local		
	Porter Rd NE		134 ft S of Powers Creek L	Powers Creek Lp	0.65	0.68	0.03	40	0.00	A	2		20			Grav				Local		
	Porter Rd NE		Powers Creek Lp	141 ft N of Powers Creek Lp	0.68	0.7	0.02	50	0.00	A	2		53			Asph				Local		
	Porter Rd NE		141 ft N of Powers Creek L	Davis Cr Rd NE	0.7	1.61	0.91	60	0.00	A	2		20			Asph				Local		
	Davis Cr Rd NE		Porter Rd NE	Begin Pavement	1.61	3.68	2.07	100	0.01	A	2		19			Grav				Local		
	Davis Cr Rd NE		Begin Pavement	S Abiqua Rd	3.68	5.18	1.50	220	0.01	A	2		19			Asph			Good	Local		
659	Herigstad Rd NE		Hwy 213	End Pavement	0	0.03	0.03	110	0.01	A	2		18			Asph		30	Very Poor	Local		
	Herigstad Rd NE		Begin Gravel	End two lanes	0.03	0.55	0.52	60	0.01	A	2		18			Grav		30		Local		
	Herigstad Rd NE		Begin one lane	Dead End	0.55	0.8	0.25	10	0.00	A	1		18			Grav		30		Local		
660	Hazelnut Ridge Rd NE		Abiqua Rd NE	280ft E of Abiqua Rd	0	0.06	0.06	220	0.01	A	2		22			Asph		40	Poor	Local		
	Hazelnut Ridge Rd NE		280ft E of Abiqua Rd	Grandview Ave	0.06	2.79	2.73	160	0.02	A	2		21			Grav		40		Local		
660 A	Heinz Rd NE		Hazelnut Ridge Rd NE	Scotts Mills Rd	0	1.03	1.03	110	0.01	A	2	1	18	1	Grav	Asph	Grav	40	Good	Local		
661	Grandview Ave NE		Hazelnut Ridge Rd	Grandview Hts	0	0.57	0.57	200	0.02	A	2		18			Grav		40		Local		
	Grandview Ave NE	Scotts Mills	Scotts Mill City Limits	Glen Cove Ave	0.57	0.83	0.26	250	0.02	A	2		18			Grav		40		Urb. Local		
	Grandview Ave NE	Scotts Mills	Glen Cove Ave	4th St	0.83	1.14	0.31	500	0.03	A	2	1	21	1	Grav	Asph	Grav	40	Good	Urb. Local		
	Grandview Ave NE	Scotts Mills	4th St	3rd St	1.14	1.19	0.05	500	0.03	A	2	1	21	1	Grav	Asph	Grav	40	Good	Urb. Local	X	X
	Grandview Ave NE	Scotts Mills	3rd St	1st St	1.19	1.29	0.10	180	0.01	A	2	1	18	1	Grav	Asph	Grav	40	Very Good	Urb. Local		
661 A	Peaks View Rd NE		Hazelnut Ridge Rd.	Private Rd	0	0.7	0.70	50	0.01	A	2		17			Grav		40		Local		
662	Mill Creek Rd NE		Crooked Finger	End Pavement	0	0.03	0.03	70	0.00	A	2		14			Asph		40	Very Good	Local		
	Mill Creek Rd NE		Begin Gravel	S Mill Creek	0.03	0.41	0.38	40	0.00	A	2		14			Grav		40		Local		
	Mill Creek Rd NE		S Mill Creek	Private Rd	0.41	0.64	0.23	20	0.00	A	1		12			Grav		40		Local		
663	Hazelnut Ridge Rd NE		Ettlin Loop NE	Crooked Finger Rd	0	2.88	2.88	80	0.01	A	2		16			Grav		40		Local		
	Hazelnut Ridge Rd NE		Crooked Finger Rd	End Pavement	2.88	2.93	0.05	130	0.01	A	2		18			Asph		40	Good	Local		
	Hazelnut Ridge Rd NE		End Pavement	Grandview Ave	2.93	3.48	0.55	110	0.01	A	2		16			Grav		40		Local		
664	McKillop Rd NE		Abiqua Rd. NE	174 ft E of Abiqua Rd	0	0.03	0.03	280	0.02	A	2		20			Asph		40	Good	Local		
	McKillop Rd NE		174 ft E of Abiqua Rd	348 ft W of Crooked Finger	0.03	1.92	1.89	160	0.02	A	2		21			Grav		40		Local		
	McKillop Rd NE		348 ft W of Crooked Finge	Crooked Finger Rd.	1.92	1.98	0.06	150	0.01	A	2		19			Asph		40		Local		
665	Abiqua Dam Rd NE		S Abiqua Rd	Dead End	0	1.23	1.23	30	0.00	A	2		19			Grav		50		Local		
666	Forest Ridge Rd NE		Hwy 214	End Pavement	0	0.04	0.04	120	0.01	A	2	1	19	1		Asph		30	Good	Local		
	Forest Ridge Rd NE		Begin Gravel	End 18' width	0.04	0.8	0.76	150	0.02	A	2		18			Grav		30		Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Forest Ridge Rd NE		Begin 16' width	Evans Valley Loop	0.8	1.67	0.87	350	0.04	A	2		16			Grav		30		Local		
667	Madrona Heights Dr NE		Quall Rd NE	Evans Valley Rd	0	0.81	0.81	520	0.03	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
668	Lincoln St NE	Silverton	2nd St	Mill St NE	0	0.22	0.22	500	0.02	A	2	4	22	4	Grav	Asph	Grav	50		Urb. Local		
669	Washington St	Silverton	2nd St	Mill St NE	0	0.22	0.22	350	0.02	A	2		18			Asph		50		Urb. Local		
670	1st St. NE	Scotts Mil	Grandview Ave	Scotts Mills City Limits	0	0.27	0.27	50	0.00	A	2		18			Asph		40	Good	Urb. Local		
	1st St. NE		Scotts Mills City Limits	Scotts Mills School	0.27	0.42	0.15	100	0.00	A	2		25			Asph		40	Good	Urb. Local		
	1st St. NE		Scotts Mills School	End Pavement	0.42	0.44	0.02	80	0.00	A	2		25			Asph		40	Good	Local		
	1st St. NE		Begin Gravel	Dead End	0.44	0.47	0.03	30	0.00	A	2		16			Grav		40	Good	Local		
701	Chemawa Rd N		17th Ave N.	Dead End	0.65	0.84	0.19	100	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
725 A	Juniper St NE		Cordon Rd NE	55th Ave NE	0	0.23	0.23	110	0.01	A	2	1	20	1	Grav	Asph	Grav	30	Good	Local		
	Juniper St NE		55th Ave NE	End of Maintenance	0.23	0.76	0.53	30	0.00	A	2	1	15	1		Grav		30	Good	Local		
728	64th PL NE		Silverton Rd	90 degree curve	0	0.68	0.68	200	0.01	A	2	1	19	1	Grav	Asph	Grav	30	Good	Local		
	Juniper St NE		90 degree curve	End Shoulders	0.68	0.97	0.29	70	0.01	A	2	1	19	1		Grav		40		Local		
	Juniper St NE		End Shoulders	72nd Ave NE	0.97	1.44	0.47	110	0.01	A	2	0	18	0		Grav		40		Local		
728 A	64th PL NE		Lardon Rd NE	Dead End	0	0.3	0.30	130	0.01	A	2	3	20	3	Grav	Asph	Grav	30	Good	Local		
729	60th Ave NE		Silverton Rd	End Co. Rd	0	0.47	0.47	270	0.02	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
733	Heron St NE		81st Ave NE	76th Ave NE	0	0.6	0.60	260	0.02	A	2	2	19	2	Grav	Asph	Grav	40	Good	Local		
	76th Ave NE		Heron St NE	Indigo St NE	0.6	1.59	0.99	220	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Good	Local		
734	82nd Ave NE		Sunnyview Rd	Lardon Rd NE	0	0.83	0.83	650	0.04	A	2	2	19	2	Grav	Asph	Grav	40	Good	Local		
	81st Ave NE		Lardon Rd NE	Silverton Rd	0.83	2.33	1.50	430	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Good	Local		
735	Lardon Rd NE		Cordon Rd NE	90 degree curve	0	0.66	0.66	1150	0.06	A	2	6	20	6	Grav	Asph	Grav	60	Very Good	Local		
	Lardon Rd NE		90 degree curve	81st Ave NE	0.66	3.31	2.65	850	0.05	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Local		
	Lardon Rd NE		81st Ave NE	Howell Prairie Rd	3.31	4.11	0.80	630	0.04	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Local		
	Kaufman Rd NE		Howell Prairie Rd	Desart Rd	4.11	4.93	0.82	1530	0.09	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Local		
	Kaufman Rd NE		Desart Rd NE	Cascade Hwy NE	4.93	7.57	2.64	820	0.06	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Local		
	Finlay Rd NE		Cascade Hwy NE	Edison Rd NE	7.57	9.28	1.71	190	0.01	A	2	1	19	1	Grav	Asph	Grav	60	Very Good	Local		
	Finlay Rd NE		Edison Rd NE	End Gravel	9.28	10.6	1.27	60	0.01	A	2		18			Grav		60	Very Good	Local		
	Finlay Rd NE		Begin Pavement	Victor Point Rd	10.6	10.6	0.09	80	0.01	A	2	1	18	1	Grav	Asph	Grav	60	Very Good	Local		
736	Swegle Rd NE		Cordon Rd NE	Hampden Ln NE	0.74	1.24	0.50	360	0.02	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
736 A	Northwood Dr NE		Fruitland Rd	Angle Dr NE	0	0.21	0.21	590	0.03	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
	Angle Dr NE		Northwood Dr NE	Hampden Ln NE	0.21	0.4	0.19	340	0.02	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
	Hampden Ln NE		Angle Dr NE	Swegle Rd NE	0.4	0.75	0.35	390	0.02	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
	Hampden Ln NE		Swegle Rd	Sunnyview Rd	0.75	1.16	0.41	570	0.03	A	2	2	22	2	Grav	Asph	Grav	30	Very Good	Local		
736 B	Angle Dr NE		Northwood Dr	59th Ave NE	0	0.25	0.25	70	0.00	A	2		20			Asph		40	Very Good	Local		
739	N Auburn Rd		Cordon Rd NE	Hampden Ln NE	1.53	2.07	0.54	560	0.03	A	2		22			Asph		40 - 50	Very Good	Local		
739 A	Hampden Ln NE		Center St NE	Auburn Rd NE	0	0.26	0.26	440	0.02	A	2	1	22	1	Grav	Asph	Grav	40	Very Good	Local		
	Hampden Ln NE		Auburn Rd NE	Dead End	0.26	0.52	0.26	60	0.01	A	2		16			Grav		45		Local		
739 B	Basil St NE		Hampden Ln NE	Fir Knoll Ln NE	0	0.26	0.26	460	0.03	A	2	1	20	1	Grav	Asph	Grav	30	Very Good	Local		
	Fir Knoll Ln NE		Basil St NE	Dead End	0.26	0.55	0.29	180	0.01	A	2		16			Asph		30	Very Good	Local		
742	Pratum Ave NE		Sunnyview Rd	End Pavement	0	0.05	0.05	140	0.01	A	2		16			Asph		60	Very Poor	Local		
	Pratum Ave NE		Begin Gravel	Enclid St NE	0.05	0.08	0.03	80	0.01	A	2		16			Grav		60		Local		
	Enclid St NE		Pratum Ave NE	Dead End	0.08	0.21	0.13	40	0.00	A	2		13			Grav		60		Local		
745	Caplinger		Cordon Rd SE	End Pavement	0.32	0.35	0.03	150	0.01	A	2	3	21	3	Grav	Asph	Grav	40	Very Good	Local		
	Caplinger		Begin Gravel	Carmel Dr SE	0.35	0.6	0.25	90	0.01	A	2		18			Grav		40		Local		
	Caplinger		Carmel Dr SE	Dead End	0.6	0.72	0.12	20	0.00	A	1		12			Grav		40		Local		
746	62nd Ave SE		Macleay Rd SE	State St.	0	1.14	1.14	1650	0.07	A	2	2	24	2	Grav	Asph	Grav	90	Very Good	Min. Collector		
	63rd Ave NE		State St.	Fruitland Rd	1.14	2.15	1.01	850	0.05	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	63rd Ave NE		Fruitland Rd	Sunnyview Rd	2.15	3.24	1.09	680	0.04	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
747	Fruitland Rd NE		63rd Ave NE	69th Ave NE	0	0.55	0.55	1050	0.05	A	2		22			Asph		40	Very Good	Local		
	69th Ave NE		Fruitland Rd NE	Conifer St NE	0.53	0.83	0.30	1000	0.05	A	2		22			Asph		40	Very Good	Local		
	Conifer St NE		69th Ave NE	End 22' width	0.83	1.39	0.56	820	0.04	A	2		22			Asph		40	Very Good	Local		
	Conifer St NE		Begin 20' width	Howell Prairie Rd	1.39	2.32	0.93	540	0.03	A	2		20			Asph		40	Very Good	Local		
748	78th Ave NE		State St	End Pavement	0	0.03	0.03	210	0.01	A	2		18			Asph		40	Very Poor	Local		
	78th Ave NE		Begin Gravel	End Gravel	0.03	1.04	1.01	100	0.01	A	2		16			Grav		40		Local		
	78th Ave NE		Begin Pavement	Conifer St. NE	1.04	1.07	0.03	200	0.01	A	2		20			Asph		40	Very Good	Local		
749	70th Ave SE		Dunsmere St SE	Bethel Rd SE	0	0.66	0.66	600	0.04	A	2	1	19	1	Grav	Asph	Grav	40 - 50	Good	Local		
	70th Ave SE		Bethel Rd SE	State St	0.66	1.32	0.66	550	0.03	A	2	1	19	1	Grav	Asph	Grav	50 - 60	Good	Local		
749 A	Dunsmere St SE		Macleay Rd SE	End Grav Shoulder	0	0.11	0.11	300	0.02	A	2	2	19	2	Grav	Asph	Grav	60	Good	Local		
	Dunsmere St SE		End Grav Shoulder	Macleay Rd SE	0.11	0.47	0.36	1020	0.05	A	2	2	22			Asph		60	Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
750	74th Ave SE		State St.	Babcock St SE	0	0.45	0.45	110	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
	Babcock St SE		74th Ave SE	Dead End	0.45	0.71	0.26	20	0.00	A	2	1	20	1	Grav	Asph	Grav	30	Good	Local		
751	95th Ave NE		State St	End 20' width	0	0.03	0.03	60	0.00	A	2		20			Asph		40	Very Good	Local		
	95th Ave NE		Begin 17' width	Sunnyview Rd NE	0.03	2.05	2.02	50	0.00	A	2		18			Grav		40		Local		
751 A	Alaska St SE		State St	End 20' width	0	0.03	0.03	110	0.01	A	2		20			Asph		40	Very Good	Local		
	Alaska St SE		Begin 14' width	Dead End	0.03	0.24	0.21	20	0.00	A	2		15			Grav		40		Local		
752	105th Ave NE		Sunnyview Rd	90 degree curve	0	0.17	0.17	130	0.01	A	2		21			Asph		40	Fair	Local		
	105th Ave NE		90 degree curve	Kaufman Rd NE	0.17	1.64	1.47	100	0.01	A	2		19			Grav		40		Local		
753	Desart Rd NE		Kaufman Rd	Silverton Rd	0	1.45	1.45	450	0.03	A	2	5	19	5	Grav	Asph	Grav	60	Very Good	Local		
754	Selah Springs Dr NE		Howell Prairie	End 21' width	0	0.02	0.02	80	0.00	A	2		21			Asph		40	Good	Local		
	Selah Springs Dr NE		Begin 17' width	Desart Rd NE	0.02	1.02	1.00	40	0.00	A	2	1	18	1	Grav	Asph	Grav	40	Good	Local		
	Selah Springs Dr NE		Desart Rd NE	Cascade Hwy NE	1.02	3.54	2.52	570	0.03	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
755	Hibbard Rd NE		Sunnyview Rd	Kaufman Rd NE	0	1.95	1.95	170	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Hibbard Rd NE		Kaufman Rd NE	90 degree curve	1.95	2.71	0.76	600	0.03	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
	Evergreen Rd NE		90 degree curve	Cascade Hwy NE	2.71	3.7	0.99	500	0.02	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
755 A	Brush Creek Dr NE		Evergreen Rd	Silverton Rd	0	0.98	0.98	320	0.02	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
758	Paradise Alley NE		Silverton Rd	Cascade Hwy	0	1	1.00	260	0.02	A	2		18			Asph		40	Very Good	Local		
759	Edison Rd NE		Finlay Rd NE	Eureka Ave	0	2.15	2.15	300	0.02	A	2	1	19	1	Grav	Asph	Grav	50	Very Good	Local		
760	Ike Mooney Rd NE	Silverton	S Water St	End 18' width	0	0.12	0.12	300	0.02	A	2	1	18	1	Grav	Asph	Grav	40	Poor	Urb. Local		
	Ike Mooney Rd NE	Silverton	Begin 20' width	Silverton City Limits	0.12	0.53	0.41	280	0.02	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Urb. Local		
	Ike Mooney Rd NE		Silverton City Limits	Silverton UGB	0.53	1.16	0.63	160	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Urb. Local		
	Ike Mooney Rd NE		Silverton UGB	Evans Valley Rd	1.16	1.54	0.38	180	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
761	Quall Rd NE		Hwy 214	Silverton UGB (Ahd)	0	0.4	0.40	550	0.03	A	2	3	19	3	Grav	Asph	Grav	60	Very Good	Local		
	Quall Rd NE		Silverton UGB (Ahd)	Silverton UGB (Bk)	0.4	0.61	0.21	520	0.03	A	2	3	19	3	Grav	Asph	Grav	60	Very Good	Urb. Local		
	Quall Rd NE		Silverton UGB (Bk)	Madrona Hts Dr.	0.61	0.92	0.31	450	0.03	A	2	3	19	3	Grav	Asph	Grav	60	Very Good	Local		
	Quall Rd NE		Madrona Hts Dr.	Forest Ridge	0.92	1.5	0.58	420	0.02	A	2	3	19	3	Grav	Asph	Grav	40	Very Good	Local		
	Forest Ridge Rd NE		Quall Rd NE	Hwy 214	1.5	1.91	0.41	350	0.02	A	2	3	19	3	Grav	Asph	Grav	30 - 50	Very Good	Local		
761 A	Leikem Circle NE		Hwy 214	Hwy 214	0	0.3	0.30	20	0.00	A	1		16			Grav		40		Local		

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Road					Milepoint	Length	2003	2003	2003	No.	Widths			Type			R/W	Pavement	2003 Functional	Sidewalks	
No.	Road Name	City	From	To	From To	Segment	Volumes	V/C	LOS	Lanes	L Sh.	Tr. Surf.	R Sh.	L Sh.	Tr. Surf.	R Sh.	Width	Cond.	Class	Lt.	Rt.
762	Masher Rd NE		Stadeli Ln NE	Dead End	0 - 1.2	1.20	60	0.00	A	2		20			Asph		40	Very Good	Local		
763	Egan Rd NE		Cascade Hwy NE	Cascade Hwy NE	0 - 0.25	0.25	10	0.00	A	2		17			Grav		40		Local		
764	Lorence Rd NE		Finlay Rd NE	126 ft S of Victor Pt Rd	0 - 0.77	0.77	80	0.01	A	1		15			Grav		30		Local		
	Lorence Rd NE		126 ft S of Victor Pt Rd	Victor Pt Rd	0.77 - 0.8	0.03	150	0.01	A	1		18			Asph		30		Local		
765	No Name		Victor Pt Rd	Dead End	0 - 0.04	0.04	20	0.00	A	2		12			Grav				Local		
767	119th Ave SE		Waldo Hills Dr	End of Pavement	0 - 0.24	0.24	70	0.00	A	2		19			Asph		40		Local		
	119th Ave SE		End Pavement	Begin Pavement	0.24 - 0.63	0.39	50	0.00	A	2		17			Grav		40	Good	Local		
	119th Ave SE		Begin Pavement	State St	0.63 - 0.77	0.14	80	0.01	A	2		18			Asph		40	Good	Local		
	119th Ave SE		State St	End Pavement	0.77 - 0.81	0.04	60	0.00	A	2		19			Asph		40	Good	Local		
	119th Ave SE		End Pavement	Kuenzi Way SE	0.81 - 1.33	0.52	50	0.00	A	2		17			Grav		40		Local		
	Kuenzi Way SE		119th Ave SE	117th Ave NE	1.33 - 1.5	0.17	50	0.00	A	2		17			Grav		40		Local		
	117th Ave NE		Kuenzi Way SE	Begin Pavement	1.5 - 2.87	1.37	60	0.01	A	2		17			Grav		40		Local		
	117th Ave NE		Begin Pavement	Sunnyview Rd	2.87 - 2.9	0.03	120	0.01	A	2		21			Asph		40		Local		
768	Doerfler Rd SE		Cascade Hwy SE	Victor Pt Rd	0 - 2.21	2.21	400	0.03	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Min. Collector		
768 A	Jakes Hill Rd SE		Doerfler Rd SE	120 ft N of Doerfler	0 - 0.02	0.02	75	0.00	A	2		21			Asph		50		Local		
	Jakes Hill Rd SE		120 ft N of Doerfler	50 ft S of Riches Rd	0.02 - 0.75	0.73	50	0.00	A	2		18			Grav		50		Local		
	Jakes Hill Rd SE		50 ft S of Riches Rd	Riches Rd	0.75 - 0.76	0.01	80	0.00	A	2		22			Asph		50		Local		
769	Goode Ln NE		Victor Point	End Pavement	0 - 0.03	0.03	20	0.00	A	2		18			Asph		40	Very Good	Local		
	Goode Ln NE		Begin Gravel	Dead End	0.03 - 0.24	0.21	10	0.00	A	2		15			Grav		40		Local		
770	Fox Rd SE		Victor Point	Drift Crk Rd	0 - 1.82	1.82	140	0.02	A	2		19			Grav		60	Very Good	Local		
772	Davis Creek Rd NE		Hwy 214	Porter Rd NE	0 - 1.57	1.57	60	0.01	A	2		18			Grav		40		Local		
772 A	Seminole Rd NE		Hwy 214	513 ft S of Hwy 214	0 - 0.1	0.10	210	0.01	A	2		23			Asph		30		Local		
	Seminole Rd NE		513 ft S of Hwy 214	#3202	0.1 - 0.5	0.40	100	0.01	A	2		20			Asph		30		Local		
	Seminole Rd NE		#3202	Dead End	0.5 - 0.74	0.24	40	0.00	A	2		18			Asph		30		Local		
773	Winters Hill Rd SE		Hwy 214	End Pavement	0 - 0.02	0.02	40	0.00	A	2		16			Asph		40		Local		
	Winters Hill Rd SE		End Pavement	Dead End	0.02 - 0.77	0.75	20	0.00	A	2		16			Grav		40		Local		
774	Timber Trail NE		Powers Creek Lp NE	S Abiqua Rd	0 - 2.46	2.46	220	0.02	A	2	2	19	2	Grav	Asph	Grav	60	Very Good	Local		
774 A	Calinda Rd NE		Timber Trail	End Pavement	0 - 0.03	0.03	50	0.00	A	2		16			Asph		60	Good	Local		
	Calinda Rd NE		Begin Gravel	Dead End	0.03 - 0.26	0.23	20	0.00	A	2		15			Grav		60		Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
775	Powers Creek Lp NE		Hwy 214	Timber Trail	0	1.58	1.58	330	0.03	A	2		19			Asph		60	Very Good	Local		
	Powers Creek Lp NE		Timber Trail	End of Pavement	1.58	4.01	2.43	160	0.01	A	2		18			Asph		40	Very Good	Local		
	Powers Creek Lp NE		End of Pavement	250 ft N of Bridge Creek Rd	4.01	6.04	2.03	220	0.02	A	2		20			Grav		40		Local		
	Powers Creek Lp NE		250 ft N of Bridge Creek R	Hwy 214	6.04	6.26	0.22	320	0.01	A	2		25			Asph		40	Good	Local		
775 A	Pflaum Rd NE		Powers Creek Lp	Dead End	0	0.17	0.17	20	0.00	A	2		11			Grav		30		Local		
775 B	No Name		Powers Creek Lp	Dead End	0	0.09	0.09	10	0.00	A	2		16			Grav		30		Local		
776	Loar Rd SE		Hwy 214	Drakes Rd SE	0	0.3	0.30	100	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Loar Rd SE		Drakes Rd SE	End of Pavement	0.3	0.33	0.03	60	0.00	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
	Loar Rd SE		End of Pavement	End of Maintenance	0.33	0.85	0.52	20	0.00	A	2		16			Grav		40	Good	Local		
776 A	Drakes Rd SE		Loar Rd SE	Hwy 214	0	0.49	0.49	50	0.00	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
777	Shetland Ln NE		Hwy 214	Dead End	0	0.15	0.15	30	0.01	A	1		12			Grav		60		Local		
778	Silver Springs Ln NE		Hwy 214	Dead End	0	0.31	0.31	20	0.00	A	1		13			Grav		40		Local		
779	Abiqua Rd NE		Briar Knob Loop	End Pavement	0	1.68	1.68	160	0.01	A	2		19			Asph		40	Good	Local		
	Abiqua Rd NE		Begin Gravel	End 18' width	1.68	2.8	1.12	80	0.01	A	2		18			Grav		40		Local		
	Milk Ranch Rd NE		Begin 14' width	Change Road Name	2.8	3.33	0.53	40	0.00	A	2		14			Grav		60		Local		
	Milk Ranch Rd NE		Change Lane Width	Locked Gate	3.33	4.6	1.27	20	0.00	A	2		14			Grav		60		Local		
781	Briar Knob Loop NE		Abiqua Rd Back	255ft E of Abiqua Rd	0	0.05	0.05	170	0.01	A	2		24			Asph		40		Local		
	Briar Knob Loop NE		255ft NE of Abiqua Rd	McKillop Rd	0.05	2.88	2.83	80	0.01	A	2		19			Grav		40		Local		
782	Crooked Finger Rd NE		Crooked Finger (Bk)	McKillop Rd	0	1.02	1.02	700	0.04	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Crooked Finger Rd NE		McKillop Rd	Ettlin Loop NE	1.02	2.22	1.20	575	0.04	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Crooked Finger Rd NE		Ettlin Loop NE	End Gravel Shoulders	2.22	7.09	4.87	340	0.02	A	2	2	22	2	Grav	Asph	Grav	40 - 60	Very Good	Local		
	Crooked Finger Rd NE		End Shoulders	End Road	7.09	8.89	1.80	120	0.01	A	2		23			Grav		40 - 70		Local		
782 A	Jakes Ln NE		Crooked Finger	162 ft N of Crooked Finger	0	0.03	0.03	30	0.00	A	1		18			Asph		30		Local		
	Jakes Ln NE		162 ft N of Crooked Finger	End of Maintenance	0.03	0.27	0.27	20	0.00	A	1		13			Grav		30		Local		
782 B	Moss Ln NE		Crooked Finger	Gate	0	0.43	0.43	40	0.00	A	2		15			Grav		40		Local		
783	Ettlin Loop NE		Crooked Finger	Hazelnut Ridge	0	0.1	0.10	90	0.01	A	2		20			Asph		30 - 40		Local		
	Ettlin Loop NE		Hazelnut Ridge	950ft E of Crooked Finger	0.1	1.04	0.94	50	0.00	A	2	2	16	2		Grav		40	Very Good	Local		
	Ettlin Loop NE		950ft E of Crooked Finger	Crooked Finger	1.04	1.22	0.18	60	0.00	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
783 A	No Name		Ettlin Loop NE	Gate	0	0.06	0.06	10	0.00	A	2		14			Grav				Local		
784	Lewis Cemetery Rd SE		Drift Creek Rd	Lewis Cemetery	0	0.15	0.15	20	0.00	A	2		12			Grav		30		Local		
801	Riverdale Rd S		Vitae Springs Rd	Sawmill Rd	0	1.28	1.28	280	0.02	A	2		20			Asph		40	Very Good	Local		
	Riverdale Rd S		Sawmill Rd	Halls Ferry Rd	1.28	1.39	0.11	300	0.02	A	2		20			Asph		60	Very Good	Local		
	Riverdale Rd S		Halls Ferry Rd	Riverdale Rd (Rd #801C)	1.39	2.81	1.42	300	0.02	A	2	2	20	2	Grav	Asph	Grav	60	Good	Local		
	Riverdale Rd S		Riverdale Rd (Rd #801C)	Enter Salem Urban Area	2.81	3.95	1.14	500	0.03	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		
	Riverdale Rd S		Enter Salem Urban Area	River Rd S	3.95	4.06	0.11	720	0.04	A	2	2	20	2	Grav	Asph	Grav	40	Good	Urb. Local		
801 A	Sawmill Rd S		River Rd S	Riverdale Rd	0	0.48	0.48	120	0.01	A	2		20			Asph		40	Very Good	Local		
801 B	Halls Ferry Rd S		River Rd S	Riverdale Rd S	0	0.44	0.44	300	0.02	A	2	1	20	1	Grav	Asph	Grav	40 - 60	Very Good	Local		
801 C	Riverdale Rd S		River Rd S	Riverdale Rd S (Rd #801)	0	0.08	0.08	300	0.02	A	2	1	18	1	Grav	Asph	Grav		Good	Local		
801 D	Riverdale Rd S		Riverdale Rd S (Rd #801)	Dead End	0	0.06	0.06	100	0.02	A	1		12			Grav		60		Local		
802	Orville Rd S		River Rd S	Vitae Springs Rd S	0	1.27	1.27	1450	0.13	B	2	1	20	1	Grav	Asph	Grav	40	Very Good	Maj. Collector		
	Vitae Springs Rd S		Orville Rd S	Skyline Rd S	1.27	4	2.73	1900	0.13	B	2	1	20	1	Grav	Asph	Grav	40	Very Good	Maj. Collector		
805	Vitae Springs Rd S		River Rd S	Begin pavement	0	0.53	0.53	80	0.01	A	2		17			Grav		50		Local		
	Vitae Springs Rd S		Begin Pavement	Vitae Springs(Rd #802)	0.53	0.58	0.05	40	0.00	A	2		18			Asph		50	Very Good	Local		
808	Pettyjohn Rd S		Riverdale Rd	Gate	0	0.85	0.85	200	0.01	A	1		16			Asph		30	Very Poor	Local		
808 A	Ballyntine Rd		Leave Salem Urban Area	Dead End	0.48	1.5	1.02	220	0.01	A	2		20			Asph		40	Very Good	Local		
809	Viewcrest Rd S		Leave Salem Urban Area	Enter Salem Urban Area	0.06	1.01	0.95	1400	0.10	A	2	1	20	1	Grav	Asph	Grav	50	Good	Urb. Collector		
811	Skyline Rd S		Riverside Dr S	Concomly Rd	0	1.38	1.38	360	0.04	A	2	1	19	1	Grav	Asph	Grav	50 - 60	Good	Min. Collector		
	Skyline Rd S		Concomly Rd	Cole Rd S	1.38	1.96	0.58	780	0.05	A	2	1	22	1	Grav	Asph	Grav	50 - 60	Good	Min. Collector		
	Skyline Rd S		Cole Rd S	Ruggles Ave	1.96	3.94	1.98	1000	0.06	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Skyline Rd S		Ruggles Ave	Vitae Springs	3.94	4.18	0.24	1400	0.08	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
812	Inwood Ln S		Skyline Rd S	Begin Pavement	0	0.62	0.62	70	0.01	A	1		12			Grav		30		Local		
	Inwood Ln S		Begin Pavement	Vitae Springs	0.62	0.65	0.03	70	0.01	A	2		11			Asph		30	Very Good	Local		
813	Davis Rd S		Skyline Rd S	Salem City Limits (Ahd)	0	0.14	0.14	500	0.03	A	2		21			Asph		40	Very Good	Urb. Local		
	Davis Rd S		Salem City Limits (Bk)	Salem City Limits (Ahd)	0.22	0.46	0.24	550	0.03	A	2		21			Asph		40	Very Good	Urb. Local		
	Davis Rd S		Salem City Limits (Bk)	Liberty Rd S	0.8	0.9	0.10	2850	0.15	B	2	3	21	3	Grav	Asph	Grav	40	Very Good	Urb. Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
814	Ruggles Ave S		Skyline Rd S	Stonehill Ave	0	0.2	0.20	340	0.02	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		
	Ruggles Ave S		Stonehill Ave	Jory Hill Rd	0.2	0.4	0.20	260	0.01	A	2	2	20	2	Grav	Asph	Grav	50	Good	Local		
	Jory Hill Rd S		Ruggles Ave S	Liberty Rd S	0.4	1.58	1.18	400	0.03	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Local		
814 A	Stonehill Ave S		Ruggles Ave S	End Pavement	0	0.03	0.03	100	0.01	A	2		20			Asph		50	Very Good	Local		
	Stonehill Ave S		Begin Gravel	End Gravel	0.03	0.27	0.24	80	0.01	A	2		14			Grav		50		Local		
	Stonehill Ave S		Begin Pavement	Skyline Rd S	0.27	0.29	0.02	110	0.01	A	2		14			Asph		50		Local		
814 B	Elmhurst Ave S		Jory Hill Rd S	Joryville Park	0	0.27	0.27	150	0.01	A	2	2	18	2	Grav	Asph	Grav	40	Very Good	Local		
815	Moore Rd S		Skyline Rd S	End Pavement	0	0.03	0.03	80	0.00	A	2		17			Asph		30	Poor	Local		
	Moore Rd S		End Pavement	Begin Pavement	0.03	0.96	0.93	40	0.00	A	2		13			Grav		30	Poor	Local		
	Moore Rd S		Begin Pavement	Cole Rd S.	0.96	1	0.04	50	0.00	A	2		14			Asph		30		Local		
816	Cole Rd S		Skyline Rd S	End pavement	0	0.09	0.09	100	0.01	A	2	1	20	1	Grav	Asph	Grav	50	Good	Local		
	Cole Rd S		End pavement	Begin pavement	0.09	1.81	1.72	80	0.01	A	2		20			Grav		50		Local		
	Cole Rd S		Begin pavement	Liberty Rd	1.81	2.55	0.74	500	0.03	A	2	1	20	1	Grav	Asph	Grav	50	Good	Local		
817	Bunker Hill Rd S		Riveside Dr S	End Pavement	0	0.02	0.02	60	0.00	A	2		18			Asph		40	Very Good	Local		
	Bunker Hill Rd S		Begin Gravel	End 18' width	0.02	1.23	1.21	40	0.00	A	2		18			Grav		40		Local		
	Bunker Hill Rd S		Begin 20' width	Bates Rd S	1.23	1.27	0.04	160	0.02	A	2		20			Grav		40		Local		
	Bates Rd S		Bunker Hill Rd S	End Gravel	1.27	2.03	0.76	300	0.03	A	2		20			Grav		40		Local		
	Bates Rd S		Begin Pavement	Cole Rd S	2.03	2.35	0.32	500	0.04	A	2		18			Asph		40	Very Good	Local		
	Bates Rd S		Cole Rd S	Rosedale School	2.35	3.08	0.73	600	0.04	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Bates Rd S		Rosedale School	Liberty Rd S	3.08	3.23	0.15	750	0.04	A	2	4	22	4	Asph	Asph	Asph	40	Very Good	Local		
817 A	Royer Rd S		Bunker Hill Rd	Royer Rd (Ahd)	0	0.05	0.05	50	0.01	A	2		14			Grav		40		Local		
818	Bunker Hill Rd S		Bunker Hill Rd	End Gravel	0	0.89	0.89	80	0.01	A	2		19			Grav		40		Local		
	Bunker Hill Rd S		Begin Pavement	Liberty Rd S	0.89	0.92	0.03	210	0.02	A	2		19			Asph		40	Very Good	Local		
831	Rees Hill Rd SE		Liberty Rd S	Enter Salem Urban Area	0	0.63	0.63	540	0.04	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
833	Rainbow Dr SE		Hylo Rd SE	Enter Salem Urban Area	0	0.69	0.69	250	0.01	A	2		20			Asph		40	Very Good	Local		
834	Hylo Rd SE		LIberty Rd S	Sunnyside Rd	0	1.73	1.73	1700	0.12	A	2	1	20	1	Grav	Asph	Grav	40	Good	Min. Collector		
834 A	Alexander Ln SE		Hylo Rd SE	End Pavement	0	0.03	0.03	110	0.01	A	2		18			Asph		40	Good	Local		
	Alexander Ln SE		Begin Gravel	End Gravel	0.03	0.82	0.79	80	0.01	A	2		15			Grav		40		Local		
	Alexander Ln SE		Begin Pavement	End Pavement	0.82	0.87	0.05	50	0.00	A	2		20			Asph		40	Good	Local		
	Alexander Ln SE		Begin Gravel	Dead End	0.87	1.01	0.14	20	0.00	A	1		12			Grav		40		Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
836	Quinalt St SE		Liberty Rd S	End Pavement	0	0.03	0.03	355	0.02	A	2		20			Asph		40	Very Good	Local		
	Quinalt St SE		Begin Gravel	90 degree curve	0.03	0.44	0.41	260	0.02	A	2		15			Grav		40		Local		
	Redstone Ave		90 degree curve	Redstone Av (Ahd)	0.04	0.71	0.67	100	0.01	A	2		14			Grav		40		Local		
837	Sunnyside Rd SE		Squirrel Hill Rd	Delaney Rd SE	0	1.12	1.12	570	0.03	A	2	1	20	1	Grav	Asph	Grav	60	Very Good	Local		
	Sunnyside Rd SE		Delaney Rd SE	Enter Salem Urban Area	1.12	1.59	0.47	2200	0.09	A	2	5	28	5	Grav	Asph	Grav	60	Very Good	Maj. Collector		
843	Jackson Hill Rd SE		Frontage Road	90 degree curve	0	0.17	0.17	40	0.00	A	2		16			Grav		40		Local		
	Jackson Hill Rd SE		90 degree curve	End Gravel	0.17	2.36	2.19	40	0.00	A	2		16			Grav		40		Local		
	Jackson Hill Rd SE		Begin Pavement	Sunnyside Rd	2.36	2.39	0.03	250	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Delaney Rd SE		Sunnyside Rd	I-5	2.39	3.38	0.99	2400	0.09	A	2	3	28	3	Asph	Asph	Asph	60	Very Good	Maj. Collector		
	Delaney Rd SE		I-5	Battlecreek Rd	3.38	4.24	0.86	3100	0.10	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		
	Delaney Rd SE		Battlecreek Rd	Mill Creek Bridge	4.24	5.84	1.60	2600	0.12	B	2	3	22	3	Grav	Asph	Grav	40	Very Good	Co. Arterial		
	Delaney Rd SE		Mill Creek Bridge	N 3rd st	5.84	6.27	0.43	2900	0.14	B	2	3	22	3	Grav	Asph	Grav	50 - 60	Very Good	Co. Arterial		
843 A	Shasta Rd SE		Jackson Hill	End Pavement	0	0.03	0.03	50	0.00	A	1		13			Asph		40		Local		
	Shasta Rd SE		Begin Gravel	Elkins Way	0.03	0.5	0.47	60	0.01	A	2		13			Grav		40		Local		
	Elkins Ave SE		Shasta Rd SE	End Gravel	0.5	0.6	0.10	60	0.01	A	2		13			Grav		40		Local		
	Elkins Ave SE		Begin Pavement	I-5	0.6	0.65	0.05	60	0.00	A	2		16			Asph		40		Local		
845	Wiltsey St SE		Enter Salem Urban Area	Wiltsey Loop	0	1.46	1.46	500	0.03	A	2	3	20	3	Grav	Asph	Grav	40	Good	Local		
	Wiltsey St SE		Wiltsey Loop	Coates Rd	1.46	1.81	0.35	200	0.01	A	2		20			Asph		40	Good	Local		
845 A	Wiltsey Loop SE		Coates Dr SE	146 ft E of Coates Dr	0	0.03	0.03	120	0.01	A	2		18			Asph		40		Urb. Local		
	Wiltsey Loop SE		146 ft E of Coates Dr	Eastland Ave SE	0.03	0.38	0.35	120	0.01	A	2		17			Grav		40		Urb. Local		
847 A	Gaffin Rd SE		Cordon Rd SE	Enter Salem Urban Area	0	0.26	0.26	3700	0.15	B	2	3	24	3	Grav	Asph	Grav	40	Good	Urb. Arterial		
848	62nd Ave SE		Deer Pk Dr SE Bk	Macleay Rd SE	0	0.55	0.55	1700	0.07	A	2	5	24	5	Grav	Asph	Grav	##	Very Good	Min. Collector		
849	Culver Dr SE		Macleay Rd SE	Enter Salem Urban Area	0	0.34	0.34	1750	0.08	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Culver Dr SE	Salem	Enter Salem Urban Area	Leave Salem Urban Area	0.34	0.75	0.41	1600	0.07	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Urb. Min. Collector		
	Culver Dr SE	Salem	Leave Salem Urban Area	Deer Park Dr	0.75	1.03	0.28	1600	0.07	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Urb. Min. Collector		
	Culver Dr SE		Deer Park Dr	Gannon St SE	1.03	1.32	0.29	2100	0.10	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Gannon St SE		Culver Dr SE	71st Ave SE	1.32	2.12	0.80	1900	0.09	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	71st Ave SE		Gannon St SE	72nd Ave SE	2.12	3.37	1.25	1500	0.07	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	72nd Ave SE		71st Ave SE	Aumsville Hwy	3.37	3.73	0.36	1350	0.07	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
849 A	Hastings St SE		71st Ave SE	Dead End	0	0.36	0.36	30	0.00	A	2		19			Grav		60		Local		
850	75th Ave SE		Jordon St SE	Harpole St SE	0	0.5	0.50	400	0.02	A	2	4	20	4	Grav	Asph	Grav	50	Very Good	Local		
	74th Ave SE		Harpole St SE	Macleay Rd SE	0.5	1.45	0.95	510	0.03	A	2	4	20	4	Grav	Asph	Grav	50	Very Good	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
850 A	Gale St SE		71st Ave SE	74th Ave SE	0	0.31	0.31	920	0.05	A	2	4	20	4	Grav	Asph	Grav	40	Poor	Local		
851	Harpole St SE		75th Ave SE	82nd Ave SE	0	0.65	0.65	320	0.02	A	2	1	19	1	Grav	Asph	Grav	40 - 50	Very Good	Local		
	82nd Ave SE		Harpole St SE	Macleay Rd	0.65	1.53	0.88	260	0.02	A	2	1	19	1	Grav	Asph	Grav	40 - 50	Very Good	Local		
	82nd Ave SE		Macleay Rd	End of Pavement	1.53	1.55	0.02	160	0.01	A	2		19			Asph		30 - 60		Local		
	82nd Ave SE		Beginning of Pavement	Darling St SE	1.55	1.74	0.19	150	0.01	A	2		17			Grav		30 - 60		Local		
	Darling St SE		82nd Ave SE	Transfer Station	1.74	2.06	0.32	80	0.01	A	2		17			Grav		45		Local		
	Darling St SE		Transfer Station	78th Ave SE	2.06	2.08	0.02	80	0.00	A	2		19		Grav	Asph	Grav	45	Very Good	Local		
	78th Ave SE		Darling St SE	Macleay Rd SE	2.08	2.25	0.17	120	0.01	A	2	1	22	1	Grav	Asph	Grav	73	Very Good	Local		
	78th Ave SE		Macleay Rd SE	End 21' width	2.25	2.37	0.12	80	0.00	A	2	5	21	5	Grav	Asph	Grav	60	Very Good	Local		
	78th Ave SE		Begin 34' width	Burton Pl SE	2.37	2.47	0.10	60	0.00	A	2		34		Grav	Asph	Grav	60	Very Good	Local		
853	Howell Prairie Rd SE		Hwy 214	Dead End	0	0.09	0.09	40	0.00	A	1		13			Grav		50		Local		
854	Joseph St. SE		Aumsville Hwy	71st Ave SE	0	1.39	1.39	1150	0.06	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Jordan St SE		71st Ave SE	75th Ave SE	1.39	1.8	0.41	910	0.06	A	2	2	19	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Jordan St SE		75th Ave SE	Howell Prairie Rd	1.8	3.61	1.81	300	0.02	A	2	2	19	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Jordan St SE		Howell Prairie Rd	Hwy 214	3.61	4.83	1.22	190	0.01	A	2		20			Asph		60	Very Good	Local		
854 A	Joseph St SE		Joseph St SE (Rd #854)	Aumsville Hwy	0	0.61	0.61	200	0.02	A	2		18			Grav		60		Local		
855	Lipscomb St SE		Witzel Rd SE	72nd Ave SE	0	0.98	0.98	250	0.01	A	2	1	22	1	Grav	Asph	Grav	40	Very Good	Local		
	72nd Ave SE		Lipcomb St SE	Aumsville Hwy	0.98	1.38	0.40	250	0.01	A	2	1	22	1	Grav	Asph	Grav	40	Very Good	Local		
855 A	Lipscomb St SE		Gath Rd SE	Dead End	0	0.79	0.79	200	0.01	A	2	5	20	5	Grav	Asph	Grav	40	Poor	Local		
856	Gath Rd SE		Witzel Rd SE	Lipscomb St	0	0.98	0.98	1210	0.06	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Gath Rd SE		Lipscomb St	Salem City Limits	0.98	1.34	0.36	1330	0.07	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Min. Collector		
857	Witzel Rd SE		Mill Creek Rd	Gath Rd	0	1.79	1.79	1800	0.08	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Witzel Rd SE		Gath Rd	Aumsville Hwy	1.79	2.79	1.00	1100	0.06	A	2	3	22	3	Grav	Asph	Grav	40	Very Good	Min. Collector		
857 A	Combest Ln SE		Witzel Rd SE	Witzel Rd SE	0	0.25	0.25	20	0.00	A	2		16			Asph		40	Good	Local		
858	Ogle St SE		Witzel Rd SE	70th Ave SE	0	1	1.00	660	0.03	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Local		
	70th Ave SE		Ogle St SE	Olney St SE	1	1.08	0.08	600	0.03	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Local		
	Olney St SE		Olney St SE	Aumsville Hwy	1.08	2.99	1.91	710	0.04	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Local		
858 A	70th Ave SE		Ogle St. SE	Dead End	0	0.41	0.41	30	0.00	A	2		18			Grav		40		Local		
858 B	75th Pl SE		Mill Creek Rd	Olney St SE	0	0.88	0.88	320	0.03	A	2		20			Grav		40 - 60		Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
861	Little Rd SE		Marion Rd SE	70th Ave SE	0	1	1.00	220	0.01	A	2	1	19	1	Grav	Asph	Grav	50	Very Good	Local		
	Little Rd SE		70th Ave SE	W Stayton Rd	1	3.28	2.28	330	0.02	A	2	1	20	1	Grav	Asph	Grav	30	Very Good	Local		
862	Shaw Square Rd SE		Hwy 214	Hwy 214	0	1.43	1.43	200	0.01	A	2	2	19	2	Grav	Asph	Grav	50	Very Good	Local		
862 A	Shaw Ln SE		Shaw Square Rd Bk	End Pavement	0	0.02	0.02	100	0.01	A	2		22			Asph		40	Very Good	Local		
	Shaw Ln SE		Begin Gravel	Private Road	0.02	0.21	0.19	50	0.00	A	2		16			Grav		40		Local		
863	Deschutes St SE		Howell Priaire	93rd Ave SE	0	0.47	0.47	280	0.01	A	2	3	20	3	Grav	Asph	Grav	40	Good	Local		
	93rd Ave SE		Deschutes St SE	Edmunson Dr SE	0.47	0.76	0.29	180	0.01	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		
	Edmunson Dr SE		93rd Ave SE	End 2' gravel shoulders	0.76	1.51	0.75	160	0.01	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		
	Edmunson Dr SE		Begin 1' gravel shoulders	Waldo Hills Dr	1.51	3.06	1.55	200	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Good	Local		
864	Anderson Rd SE		Sublimity Rd	1000' north of Sublimity Rd	0	0.19	0.19	240	0.01	A	2		21		Asph	Asph		30	Very Good	Local		
	Anderson Rd SE		1000' north of Sublimity Rd	Steinkamp Rd	0.19	0.42	0.23	180	0.01	A	2		21		Asph	Asph		45	Very Good	Local		
	Anderson Rd SE		Steinkamp Rd	End Pavement	0.42	0.5	0.08	90	0.01	A	2		21		Asph	Asph		30	Very Good	Local		
	Anderson Rd SE		Begin Gravel	Schmidt Rd SE	0.5	2.35	1.85	70	0.01	A	2		19		Grav	Grav		30		Local		
	Anderson Rd SE		Schmidt Rd SE	Hwy 214	2.35	2.51	0.16	60	0.01	A	2		19		Grav	Grav		40		Local		
	Anderson Rd SE		Hwy 214	Waldo Hills Dr	2.51	5.14	2.63	240	0.02	A	2		20		Grav	Grav		40		Local		
864 A	Schmidt Rd SE		Anderson Rd SE	140 ft W of Cascade Hwy	0	0.93	0.93	10	0.00	A	2		18		Grav	Grav		40		Local		
	Schmidt Rd SE		140 ft W of Cascade Hwy	Cascade Hwy SE	0.93	0.96	0.03	10	0.00	A	2		21		Grav	Asph		40		Local		
865	Waldo Hills Dr SE		Hwy 214	Begin Gravel Shoulders	0	1.45	1.45	250	0.02	A	2		22			Asph		40	Very Good	Local		
	Waldo Hills Dr SE		Begin Gravel Shoulders	End Gravel Shoulders	1.45	1.62	0.17	160	0.01	A	2	1	22	1	Grav	Asph	Grav	40	Very Good	Local		
	Waldo Hills Dr SE		End Gravel Shoulders	Cascade Hwy SE	1.62	3.28	1.66	180	0.01	A	2		22			Asph		40	Very Good	Local		
	Waldo Hills Dr SE		Cascade Hwy SE	McElhaney Rd	3.28	3.44	0.16	90	0.01	A	2	3	22	3	Grav	Asph	Grav	50	Very Good	Local		
	Waldo Hills Dr SE		McElhaney Rd	End Pavement	3.44	3.47	0.03	90	0.01	A	2		18			Asph		40	Very Good	Local		
	Waldo Hills Dr SE		Begin Gravel	End Gravel	3.47	6.31	2.84	60	0.01	A	2		22			Grav		40		Local		
	Waldo Hills Dr SE		Begin Pavement	End Pavement	6.31	6.38	0.07	60	0.00	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
	Waldo Hills Dr SE		Begin Gravel	Union Hill Rd	6.38	6.8	0.42	60	0.01	A	2		18			Grav		60		Local		
	Union Hill Rd SE		Waldo Hills Dr SE	Hwy 214	6.8	8.32	1.52	50	0.01	A	2		18			Grav		40		Local		
865 A	Grange Rd		Victor Point Rd	Union Hill Rd	0	1.03	1.03	20	0.00	A	2		18			Grav		40		Local		
866	Friendly Acres Rd SE		Shaw Hwy SE	Dead End	0	0.35	0.35	80	0.01	A	2		22			Grav		40		Local		
867	Brownell Dr SE		Shaw Hwy SE	Peter Rd SE	0	0.44	0.44	600	0.03	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Brownell Dr SE		Peter Rd SE	Hwy 214	0.44	1.32	0.88	430	0.02	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
867 A	Peter Rd SE		Brownell Dr SE	End Pavement	0	0.03	0.03	150	0.01	A	2	1	21	1	Grav	Asph	Grav	60	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Peter Rd SE		Begin Gravel	Private Rd	0.03	0.61	0.58	60	0.01	A	2		19			Grav		60		Local		
867 B	Smith Rd SE		Shaw Hwy SE	End Pavement	0	0.05	0.04	100	0.01	A	2		20			Asph		60	Very Good	Local		
	Smith Rd SE		Begin Gravel	Dead End	0.05	0.69	0.78	50	0.00	A	2		18			Grav		60		Local		
869	Bishop Rd SE		Mill Creek Rd	End Pavement	0	0.03	0.03	100	0.01	A	2	1	23	1	Grav	Asph	Grav	40	Good	Urb. Local		
	Bishop Rd SE		Begin Gravel	Dead End	0.03	0.56	0.53	50	0.00	A	2		21			Grav		40		Urb. Local		
870	Bishop Rd SE		Porter Rd SE	End Gravel	0	0.93	0.93	120	0.01	A	2		19			Asph		40		Local		
	Bishop Rd SE		Begin Pavement	Mill Creek Rd SE	0.93	1.33	0.40	230	0.01	A	2	1	18	1	Grav	Asph	Grav	40	Good	Local		
871	Steinkamp Rd SE		Anderson Rd SE	Golf Club Rd	0	0.5	0.50	250	0.01	A	2		21			Asph		55 - 60	Very Good	Local		
	Steinkamp Rd SE		Golf Club Rd	Sherman Rd SE	0.5	0.83	0.33	1000	0.06	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Steinkamp Rd SE		Sherman Rd SE	45 degree curve	0.83	1.12	0.29	240	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Steinkamp Rd SE		45 degree curve	End Gravel Shoulders	1.12	2.27	1.15	200	0.01	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Local		
	Steinkamp Rd SE		End Gravel Shoulders	Dead End	2.27	2.41	0.14	10	0.00	A	2		20			Asph		50	Very Good	Local		
871 A	Golf Club Rd SE		Sublimity Rd	W Bound on ramp of Hwy2	0	0.09	0.09	1150	0.05	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Golf Club Rd SE		W Bound on ramp of Hwy2	400 ft N of See Golf Ln	0.09	0.28	0.19	1100	0.05	A	2	5	65	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Golf Club Rd SE		400 ft N of See Golf Ln	Steinkamp Rd	0.28	0.46	0.18	1000	0.05	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
871 B	Albus Rd SE		Leaverman Rd SE	End Pavement	0	0.36	0.36	280	0.01	A	2	1	22	1	Grav	Asph	Grav	30 - ##	Very Good	Local		
	Albus Rd SE		Begin Gravel	Dead End	0.36	0.52	0.16	30	0.00	A	2		15			Grav		60		Local		
871 C	Leverman Rd SE		Mill Creek Rd	Albus Rd SE	0	0.33	0.33	500	0.03	A	2	2	22	2	Grav	Asph	Grav	50	Very Good	Local		
	Leverman Rd SE		Albus Rd SE	End of Pavement	0.33	0.83	0.50	80	0.00	A	2		20			Asph		40		Local		
872	Bates Rd Se		W Stayton Rd	Bishop Rd SE	0	0.96	0.96	150	0.01	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
872 A	Holmquist Rd SE		Bates Rd SE	Dead End	0	0.35	0.35	120	0.01	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Local		
874	Sherman Rd SE		Steinkamp Rd SE	James Dr SE	0	0.28	0.28	650	0.04	A	2		19			Asph		30 - 45	Very Good	Local		
	Sherman Rd SE		James Dr SE	Ditter Dr SE	0.28	0.52	0.24	400	0.03	A	2		19			Asph		45	Very Good	Local		
	Sherman Rd SE		Ditter Dr SE	Hwy 214	0.52	2.07	1.55	250	0.02	A	2		19			Asph		30	Very Good	Local		
874 A	Simpson Rd SE		Brownell Dr SE	End Pavement	0	0.03	0.03	50	0.00	A	2		20			Asph		30	Very Good	Local		
	Simpson Rd SE		Begin Gravel	Sherman Rd SE	0.03	1.11	1.08	40	0.00	A	2		18			Grav		30		Local		
877	Fazer Rd SE		Drift Creek Rd	Locked Gate	0	1.09	1.09	40	0.00	A	2		18			Grav		40		Local		
878	Triumph Rd SE		Cascade Hwy SE	135th Ave SE	0	0.5	0.50	540	0.02	A	2	3	22	3	Grav	Asph	Grav	50	Fair	Local		
	Triumph Rd SE		135th Ave SE	Boedigheimer Rd	0.5	1.03	0.53	470	0.02	A	2	2	22	2	Grav	Asph	Grav	50	Fair	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Triumph Rd SE		Boedigheimer Rd	End Gravel Shoulder	1.03	2.3	1.27	140	0.01	A	2	2	22	2	Grav	Asph	Grav	50	Fair	Local		
	Triumph Rd SE		End Gravel Shoulder	Carter Rd SE	2.3	3.22	0.92	120	0.01	A	2		22			Asph		50	Very Good	Local		
	Carter Rd SE		Triumph Rd	Hwy 214	3.22	4.66	1.44	100	0.01	A	2		22			Asph		50	Very Good	Local		
878 A	Starr St	Sublimity	Cascade Hwy	Begin sidewalk (left)	0	0.03	0.03	1600	0.05	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local		X
	Starr St	Sublimity	Begin sidewalk (left)	End sidewalk (left)	0.03	0.07	0.04	1550	0.05	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local	X	
	Starr St	Sublimity	End sidewalk (left)	Broadway St	0.07	0.11	0.04	1500	0.05	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local		
	Starr St	Sublimity	Broadway St	End sidewalk (left)	0.11	0.12	0.01	1450	0.05	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local	X	X
	Starr St	Sublimity	End sidewalk (left)	Begin sidewalk (left)	0.12	0.16	0.04	1400	0.05	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local		X
	Starr St	Sublimity	Begin sidewalk (left)	End sidewalk (left)	0.16	0.24	0.08	1350	0.04	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local	X	
	Starr St	Sublimity	End sidewalk (left)	Berry St SE	0.24	0.5	0.26	1300	0.04	A	2	5	33	5	Asph	Asph	Asph		Very Good	Urb. Local		
	Berry St SE		Starr St	135th Ave SE	0.5	0.77	0.27	700	0.02	A	2	5	32	5	Asph	Asph	Asph		Very Good	Local		
	135th Ave SE		Berry St	End Asphalt Shoulders	0.77	0.98	0.21	200	0.01	A	2	5	32	5	Asph	Asph	Asph	60	Very Good	Local		
	135th Ave SE		Begin Gravel Shoulders	Triumph Rd SE	0.98	1.13	0.15	50	0.00	A	2	4	23	4	Grav	Asph	Grav	50	Good	Local		
878 B	Boedigheimer Rd		Coon Hollow Rd	Triumph Rd	0	0.82	0.82	300	0.02	A	2		22			Asph		40	Very Good	Local		
879	Jasper Ln SE		Hwy 214	Hwy 214	0	1.38	1.38	20	0.00	A	2		16			Grav		40		Local		
880	Hult Rd SE		Hwy 214	Hwy 214	0	0.7	0.70	10	0.00	A	2		13			Grav		40		Local		
881	Dennison Rd SE		Coon Hollow Rd	End Pavement	0	0.03	0.03	40	0.00	A	2		18			Asph		40	Poor	Local		
	Dennison Rd SE		Begin Gravel	Triumph Rd SE	0.03	0.92	0.89	40	0.00	A	2		18			Grav		40		Local		
882	Triumph Rd SE		Carter Rd SE	170th Ave SE	0	1.4	1.40	120	0.01	A	2		20			Asph		60	Very Good	Local		
	170th Ave SE		Triumph Rd SE	Coon Hollow Rd	1.4	2.06	0.66	60	0.01	A	2		20			Grav		60	Very Good	Local		
	Coon Hollow Rd SE		170th Ave SE	Basl Hill Rd SE	2.06	3.57	1.51	60	0.00	A	2		22			Asph		60	Very Good	Local		
	Basl Hill Rd SE		Coon Hollow Rd	Fern Ridge	3.57	5.2	1.63	40	0.00	A	2		22			Asph		50	Very Good	Local		
882 A	Coon Hollow Rd SE		Basl Hill Rd	Coon Hollow Rd ahead	0	0.32	0.32	10	0.00	A	2		16			Grav		40		Min. Collector		
884	Silver Ridge Rd SE		Silver Ridge Rd Back	Hwy 214	0	2.89	2.89	50	0.01	A	2		18			Grav		40		Local		
885	Jack Ln SE		Hwy 214	Dead End	0	0.17	0.17	10	0.00	A	2		16			Grav		40		Local		
886	De Santis Ln SE		Hwy 214	End Pavement	0	0.02	0.02	120	0.01	A	2		18			Asph		40		Local		
	De Santis Ln SE		End Pavement	Dead End	0.02	0.59	0.57	60	0.01	A	2		18			Grav		40		Local		
886 A	Schafer Ln SE		De Santis Ln	Dead End	0	0.5	0.50	40	0.00	A	2		20			Grav		40		Local		
887	Bridge Creek Rd SE		Powers Creek Lp SE	2455ft E of Power Creek Lp	0	0.47	0.47	200	0.01	A	2		22			Asph		40		Local		
	Bridge Creek Rd SE		2455ft E of Powers Creek	End of Pavement	0.47	1.41	0.94	120	0.01	A	2		23			Grav		40		Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Bridge Creek Rd SE		End of Pavement	Grade Road	1.41	3.95	2.54	40	0.00	A	2		16			Grav		60		Local		
887 A	Bridge Creek Rd SE		Bridge Creek Rd	Dead End	0	0.65	0.65	20	0.00	A	2		14			Grav		60		Local		
887 B	Upper Bridge Creek Rd SE		Grade Rd SE	Locked Gate	0	0.96	0.96	10	0.00	A	2		16			Grav		60 - ##		Local		
888	Hancock Ln		Hwy 214	Dead End	0	0.15	0.15	40	0.00	A	2		16			Grav		40		Local		
889	North Fork Rd SE		Hwy 214	140 ft N of Hwy 214	0	0.03	0.03	150	0.01	A	2		17			Asph		40		Local		
	North Fork Rd SE		140 ft N of Hwy 214	Private Rd	0.03	1.75	1.72	150	0.01	A	2		16			Grav		40		Local		
890	84th Ave SE		Macleay Rd SE	End Pavement	0	0.12	0.12	40	0.00	A	2		18			Asph		50	Poor	Local		
	84th Ave SE		Begin Gravel	Dead End	0.12	0.16	0.04	20	0.00	A	2		18			Grav		50		Local		
891	Grade Rd SE		Powers Creek	897 ft E of Powers Creek L	0	0.17	0.17	220	0.02	A	2		20			Asph		##	Good	Local		
	Grade Rd SE		897 ft E of Powers Creek L	End of Pavement	0.17	0.4	0.23	180	0.01	A	2		22			Asph		##		Local		
	Grade Rd SE		End of Pavement	End of Maintenance	0.4	6.9	6.50	50	0.01	A	2		16			Grav		##		Local		
903	Emmons Rd S		Talbot Rd S	End 16' width	0	0.02	0.02	30	0.00	A	2		15			Asph		40		Local		
	Emmons Rd S		Begin 14' width	End 14' width	0.02	0.47	0.45	20	0.00	A	2		12			Grav		40		Local		
	Emmons Rd S		Begin 10' width	Dead End	0.47	0.59	0.12	10	0.00	A	1		10			Grav		40		Local		
904	Marlatt Rd S		Wintel Rd S	Talbot Rd	0	1.09	1.09	220	0.01	A	2	4	20	4	Grav	Asph	Grav	60	Good	Local		
	Marlatt Rd S		Talbot Rd	End Pavement	1.09	1.14	0.05	50	0.00	A	2	4	15	4	Grav	Asph	Grav	60	Good	Local		
	Marlatt Rd S		Begin Gravel	Dead End	1.14	1.78	0.64	20	0.00	A	2		15			Grav		60		Local		
905	Myers Ln S		Talbot Rd S	93 ft S of Talbot	0	0.02	0.02	50	0.00	A	2		18			Asph		30		Local		
	Myers Ln S		93 ft S of Talbot	North End of Bridge	0.02	0.55	0.53	40	0.00	A	2		16			Grav		30		Local		
	Myers Ln S		North End of Bridge	South End of Bridge Paven	0.55	0.58	0.03	30	0.00	A	2		24			Asph		30		Local		
	Myers Ln S		South End of Bridge Paver	End of Maintenance	0.58	0.65	0.07	30	0.00	A	2		16			Grav		30		Local		
906	Riverside Rd S		Independence Bridge	River Rd S	0	0.07	0.07	300	0.02	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Riverside Rd S		River Rd S	B.N.R.R. Under X-ing	0.07	2.58	2.51	800	0.05	A	2	1	19	1	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Riverside Rd S		B.N.R.R. Under X-ing	Skyline Rd S	2.58	3.83	1.25	720	0.05	A	2	1	19	1	Grav	Asph	Grav	40 - ##	Very Good	Min. Collector		
	Riverside Rd S		Skyline Rd S	Bunker Hill Rd	3.83	5.13	1.30	500	0.03	A	2	1	19	1	Grav	Asph	Grav	60 - ##	Very Good	Min. Collector		
	Riverside Rd S		Bunker Hill Rd	Sidney Rd S	5.13	5.82	0.69	470	0.03	A	2	1	19	1	Grav	Asph	Grav	60 - 80	Very Good	Min. Collector		
	Sidney Rd S		Riverside Rd S	Buena Vista Rd	5.82	7.7	1.88	520	0.03	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Min. Collector		
907	Wintel Rd S		Buena Vista Rd	Jorgenson Rd S	0	2.99	2.99	300	0.02	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
	Wintel Rd S		Jorgenson Rd S	Ankeny Hill	2.99	3.99	1.00	830	0.05	A	2	3	19	3	Grav	Asph	Grav	60	Very Good	Local		
907 A	Jorgenson Rd S		Talbot	Wintel Rd S	0	0.55	0.55	450	0.03	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
907 B	No Name		Wintel Rd S	90 degree curve	0	0.2	0.20	20	0.00	A	2		16			Grav				Local		
	No Name		90 degree curve	Dead End	0.2	0.37	0.17	10	0.00	A	2		14			Grav				Local		
908	Hochspeier Rd SE		Jefferson Hwy	Jefferson Hwy	0	0.3	0.30	20	0.00	A	2		15			Grav		60		Local		
909	Gilmour Rd S		Talbot Rd S	End Pavement	0	0.02	0.02	90	0.01	A	2		18			Asph		40	Fair	Local		
	Gilmour Rd S		Begin Gravel	End Gravel	0.02	0.97	0.95	50	0.00	A	2		18			Grav		40		Local		
	Gilmour Rd S		Begin Pavement	Buena Vista S	0.97	0.99	0.02	90	0.00	A	2		23			Asph		40	Fair	Local		
911	Steiwer Rd SE		Jefferson Hwy	309 ft E of Jefferson Hwy	0	0.05	0.05	180	0.01	A	2		20			Asph		40		Local		
	Steiwer Rd SE		309 ft E of Jefferson Hwy	End Rd	0.05	0.74	0.69	90	0.01	A	2		15			Grav		40		Local		
912	Farmer Rd SE		Jefferson Hwy	End of Pavement	0	0.02	0.02	200	0.01	A	2		20			Asph		50		Local		
	Farmer Rd SE		End of Pavement	Dead End	0.02	0.56	0.54	100	0.01	A	2		14			Grav		50		Local		
913	No Name		Jefferson Hwy	Private Rd	0	0.15	0.15	10	0.00	A	1		12			Grav		40		Local		
914	Miller Rd SE		Talbot Rd SE	Morgan Creek	0	0.03	0.03	30	0.00	A	2		20			Asph		40	Very Good	Local		
	Miller Rd SE		Morgan Creek	Begin Gravel	0.03	0.32	0.29	20	0.00	A	2		20		Grav	Asph	Grav	40	Very Good	Local		
	Miller Rd SE		Begin Gravel	Dead End	0.32	0.74	0.42	10	0.00	A	2		18			Grav		40		Local		
914 A	White Ln SE		Talbot Rd SE	90 degree curve (right)	0	0.31	0.31	400	0.02	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	White Ln SE		90 degree curve (right)	End Pavement	0.31	0.56	0.25	80	0.00	A	2	1	20	1	Grav	Asph	Grav	40 - 50	Very Good	Local		
	White Ln SE		Begin Gravel	Dead End	0.56	0.65	0.09	40	0.00	A	2		16			Grav		40 - 50		Local		
915	Clover Ln SE		Cloverdale Rd	End 2 lane rd	0	0.19	0.19	120	0.01	A	2		19			Asph		40	Good	Local		
	Clover Ln SE		Begin 1 lane rd	Parrish Gap Rd	0.19	0.24	0.05	110	0.01	A	1		12			Asph		40		Local		
917	Ridgeway Dr SE		Cloverdale Rd	Parrish Gap Rd	0	2.83	2.83	250	0.02	A	2	1	19	1	Grav	Asph	Grav	40	Good	Local		
917 A	39th Ave SE		Ridgeway Dr SE	Cloverdale Rd	0	0.37	0.37	150	0.01	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
918	Cloverdale Cemetery Rd		Parrish Gap Rd	Dead End	0	0.27	0.27	10	0.00	A	1		12			Grav		40		Local		
919	Summit Loop SE		Parrish Gap Rd	Parrish Gap Rd	0	5.07	5.07	250	0.01	A	3	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
920	Wintercreek Rd SE		Jefferson Hwy	Centerwood Dr	0	1.54	1.54	1050	0.05	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Wintercreek Rd SE		Centerwood Dr	Parrish Gap Rd	1.54	2.99	1.45	620	0.03	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
921	Vaughn Rd SE		Skelton Rd SE	Begin Pavement (Bridge)	0	0.12	0.12	30	0.00	A	2		17			Grav		40		Local		
	Vaughn Rd SE		Begin Pavement (Bridge)	End Pavement (Bridge)	0.12	0.16	0.04	30	0.00	A	2		21			Asph		40		Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Vaughn Rd SE		End Pavement (Bridge)	Begin Pavement	0.16	1.06	0.90	30	0.00	A	2		17			Grav		40		Local		
	Vaughn Rd SE		Begin Pavement	Parrish Gap Rd	1.06	1.13	0.07	30	0.00	A	2		19			Asph		40		Local		
922	Skelton Rd SE		Jefferson-Marion	103 ft N of Jefferson-Marion	0	0.02	0.02	240	0.02	A	2		18			Asph		40		Local		
	Skelton Rd SE		103 ft N of Jefferson-Mario	South End of Bridge	0.02	1.85	1.83	120	0.01	A	2		20			Grav		40		Local		
	Skelton Rd SE		South End of Bridge	North End of Bridge	1.85	1.9	0.05	50	0.00	A	2		25			Asph		40		Local		
	Skelton Rd SE		North End of Bridge	135 ft S of Wintercreek Rd	1.9	2.49	0.59	50	0.00	A	2		20			Grav		40		Local		
	Skelton Rd SE		135 ft S of Wintercreek Rd	Wintercreek Rd	2.49	2.52	0.03	70	0.00	A	2		24			Asph		40		Local		
922 A	Robison Rd SE		Jefferson Hwy	100 ft E of Jefferson Hwy	0	0.02	0.02	110	0.01	A	2		22			Asph		40		Local		
	Robison Rd SE		100 ft E of Jefferson Hwy	Skelton Rd SE	0.02	0.9	0.88	50	0.00	A	2		20			Grav		40		Local		
923	Salamander Rd SE		Jefferson-Marion Rd	SPRR XING	0	0.85	0.85	200	0.01	A	2		22			Asph		40	Very Good	Local		
923 A	Wied Rd SE		Salamander Rd	132 ft S of Salamander	0	0.03	0.03	50	0.00	A	2		19			Asph		40		Local		
	Wied Rd SE		132 ft S of Salamander	Dead End	0.03	0.98	0.95	20	0.00	A	2		16			Grav		40		Local		
924	Parrish Gap Rd SE		Jefferson-Marion Rd	Vaughn Rd SE	0	1.52	1.52	540	0.03	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Parrish Gap Rd SE		Vaughn Rd SE	Winter Creek Rd SE	1.52	2.22	0.70	550	0.04	A	2	2	19	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Parrish Gap Rd SE		Winter Creek Rd SE	Summit Loop Rd SE	2.22	3.24	1.02	660	0.04	A	2	2	19	2	Grav	Asph	Grav	50	Very Good	Min. Collector		
	Parrish Gap Rd SE		Summit Loop Rd SE	Cloverdale Rd SE	3.24	6.65	3.41	1250	0.08	A	2	2	19	2	Grav	Asph	Grav	60	Very Good	Min. Collector		
	Parrish Gap Rd SE		Cloverdale Rd SE	Hennies Rd SE	6.65	6.79	0.14	1400	0.07	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
	Parrish Gap Rd SE		Hennies Rd SE	Delaney Rd SE	6.79	9.01	2.22	1500	0.08	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Min. Collector		
925	North Ave		Jefferson Marion Rd	Jefferson City Limits	0.03	0.14	0.11	200	0.01	A	2		22			Asph		60	Very Good	Urb. Local		
	Cemetery Hill Rd SE		Jefferson City Limits	End 20' width	0.14	0.16	0.02	50	0.00	A	2		17			Grav		60		Urb. Local		
	Cemetery Hill Rd SE		Begin 14' width	Jefferson UGB	0.16	0.37	0.21	50	0.00	A	2		17			Grav		60		Urb. Local		
	Cemetery Hill Rd SE		Jefferson UGB	Dead End	0.37	0.87	0.50	30	0.00	A	2		17			Grav		60		Local		
926	"A" St SE (Marion)		Duckflat Rd SE	Jefferson-Marion Rd																		
	"A" St SE (Marion)		Jefferson-Marion Rd	Dead End	0.04	0.17	0.13	90	0.00	A	2		20			Asph		45 - 60		Local		
927	Cook Rd SE		Parrish Gap Rd	55th Ave SE	0	0.95	0.95	70	0.01	A	2		22			Grav		40		Local		
	55th Ave SE		Cook Rd SE	54th Ave SE	0.95	1.37	0.42	20	0.00	A	2		22			Grav		40		Local		
	55th Ave SE		Road Closed (Ahead)	Road Closed (Back)	1.37	1.57	0.20									Unimpr		40		Local		
	55th Ave SE		Road Closed (Back)	Hennies Rd SE	1.57	1.91	0.34	400	0.02	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	55th Ave SE		Hennies Rd SE	End County Rd	1.91	3.14	1.23	120	0.01	A	2		22			Grav		40		Local		
	Second St		End County Rd	Elgin St	3.14	3.19	0.05	120	0.01	A	2		22			Grav		40		Local		
927 A	Hennies Rd SE		Wipper Rd SE	55th Ave SE	0	0.53	0.53	450	0.02	A	2	2	22	2	Grav	Asph	Grav	30 - 55	Very Good	Local		
927 B	Bear Ln SE		55th Ave SE	Marion Rd SE	0	0.51	0.51	520	0.03	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		

Appendix B: Marion County Rural Roadway Inventory

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
928	70th Ave SE		Marion Rd SE Back	90 degree curve	0	1.02	1.02	600	0.03	A	2	3	20	3	Grav	Asph	Grav	50	Very Good	Local		
	70th Ave SE		90 degree curve	Mill Creek Rd	1.02	2.44	1.42	500	0.03	A	2	1	20	1	Grav	Asph	Grav	50	Very Good	Local		
929	Duckflat Rd SE		Dead End	Marion Hill Rd	0	0.37	0.37	40	0.00	A	2		16			Asph		60	Very Good	Local		
	Duckflat Rd SE		Marion Hill Rd	"A" Street SE	0.37	0.47	0.10	650	0.03	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
	Duckflat Rd SE		"A" Street SE	Valley View Rd	0.47	1.42	0.95	400	0.02	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
	Duckflat Rd SE		Valley View Rd	Pearson Rd Se	1.42	1.83	0.41	100	0.01	A	2		23			Grav		60		Local		
	Duckflat Rd SE		Pearson Rd Se	Hunsaker Rd SE	1.83	3.19	1.36	30	0.00	A	2		23			Grav		60		Local		
929 A	Cook Rd SE		Marion Rd SE	Duckflat Rd SE	0	0.17	0.17	30	0.00	A	2		18			Grav		60		Local		
	Duckflat Rd SE		Duckflat Rd SE	Dead End	0.17	1.73	1.56	10	0.00	A	2		18			Grav		60		Local		
930	Pearson Rd Se		Parrish Gap Rd	150 ft E of Parrish Gap	0	0.03	0.03	110	0.01	A	2		20			Asph		40		Local		
	Pearson Rd Se		150 ft E of Parrish Gap	Duckflat Rd SE	0.03	0.96	0.93	50	0.00	A	2		22			Grav		40		Local		
931	Valley View Rd SE		Parrish Gap Rd	Duckflat Rd SE	0	1.1	1.10	510	0.03	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
931 A	Woodland Ln SE		Valley View Rd	Dead End	0	0.39	0.39	120	0.01	A	2		20			Asph		40	Very Good	Local		
932	Marion Hill Rd SE		Duckflat Rd SE	Dead End	0	1.13	1.13	200	0.01	A	2	2	20	2	Grav	Asph	Grav	50	Very Good	Local		
933	Greens Bridge Rd SE		Jefferson-Scio Rd	5280 ft S of Jeff-Marion Rd	0	0.8	0.80	460	0.02	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Local		
	Greens Bridge Rd SE		5280 ft S of Jeff-Marion Rd	Jefferson-Marion Rd	0.8	1.8	1.00	420	0.02	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		
	Libby Lane SE		Jefferson-Marion Rd	S.P.R.R. Xing	1.81	1.9	0.09	90	0.01	A	2		19			Asph		50		Local		
	Libby Lane SE		S.P.R.R. Xing	End 18' width	1.9	2.3	0.40	60	0.01	A	2		17			Grav		50		Local		
	Libby Lane SE		Begin 16' width	Dead End	2.3	2.5	0.20	30	0.00	A	2		17			Grav		40		Local		
934	Lee Wells Rd SE		Jefferson-Marion Rd	Private Rd	0	0.04	0.04	10	0.00	A	1		12			Grav		30		Local		
935	Harris Lane SE		Jefferson - Scio Dr	147 ft S of Jeff-Scio	0	0.03	0.03	180	0.01	A	2		20			Asph		33		Local		
	Harris Lane SE		147 ft S of Jeff-Scio	Dead End	0.03	0.58	0.55	80	0.01	A	2		15			Grav		33		Local		
935 A	Wall Ln SE		Jefferson-Scio Rd	End Pavement	0	0.03	0.03	50	0.00	A	2		20			Asph		50	Very Good	Local		
	Wall Ln SE		Begin Gravel	Dead End	0.03	0.67	0.64	30	0.00	A	2		17			Grav		50		Local		
936	Weddle Rd SE		Jefferson-Scio Rd	End Pavement	0	0.03	0.03	100	0.01	A	2		18			Asph		30	Very Good	Local		
	Weddle Rd SE		Begin Gravel	Private Rd	0.03	0.85	0.82	60	0.01	A	2		16			Grav		30		Local		
937	Shaff Rd SE		Marion Rd SE	West Stayton Rd	0	2.18	2.18	930	0.05	A	2	3	18	3	Grav	Asph	Grav	30	Very Good	Local		
938	Brick Rd SE		Stayton Rd SE	Darley Rd SE	0	1.52	1.52	440	0.03	A	2		19			Asph		50	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Brick Rd SE		Darley Rd Se	End Pavement	1.52	1.62	0.10	90	0.01	A	2		20			Asph		40	Very Good	Local		
	Brick Rd SE		Begin Gravel	End Gravel	1.62	2.35	0.73	70	0.01	A	2		20			Grav		40		Local		
	Brick Rd SE		Begin Pavement	Begin Gravel Shoulders	2.35	2.47	0.12	70	0.00	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Brick Rd SE		Begin Gravel Shoulders	Pleasant Grove Rd	2.47	2.53	0.06	90	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Pleasant Grove Rd		Brick Rd SE	Brick Rd SE	2.53	2.66	0.13	130	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
	Brick Rd SE		Pleasant Grove Rd	Shaff Rd SE	2.66	3.07	0.41	400	0.03	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
938 A	Pleasant Grove Rd SE		Brick Rd SE	W Stayton Rd	0	0.88	0.88	170	0.01	A	2	2	19	2	Grav	Asph	Grav	40	Very Good	Local		
940	Hunsaker Rd SE		Parish Gap Rd	150 ft E of Marion Rd	0	2.06	2.06	530	0.03	A	2	2	22	2	Grav	Asph	Grav	40	Very Good	Local		
	Hunsaker Rd SE		150 ft E of Marion Rd	Brick Rd SE	2.06	2.93	0.87	50	0.00	A	2		21			Grav		40		Local		
941	Mac Robbins Ln SE		Marion Rd SE	End Pavement	0	0.03	0.03	20	0.00	A	2		20			Asph		40	Very Good	Local		
	Mac Robbins Ln SE		Begin Gravel	Dead End	0.03	0.38	0.35	10	0.00	A	2		18			Grav		40		Local		
942	Woodpecker Dr SE		Stayton Rd	Marion Rd SE	0	1.62	1.62	180	0.01	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
942 A	Hilton Ln SE		Woodpecker Dr	Stayton Rd SE	0	0.51	0.51	80	0.00	A	2	2	20	2	Grav	Asph	Grav	40	Good	Local		
944	Pletzer Rd SE		Jefferson-Marion Rd	Dead End	0	0.92	0.92	100	0.01	A	2		20			Asph		40	Very Good	Local		
944 A	Colgan Rd SE		Pletzer Rd SE	Dead End	0	0.5	0.50	10	0.00	A	2		16			Grav		40		Local		
944 B	B Street SE (Marion)		Jefferson-Marion Rd	80 degree curve (right)	0	0.22	0.22	300	0.02	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Local		
	B Street SE (Marion)		80 degree curve (right)	End Pavement	0.22	0.27	0.05	250	0.01	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
	B Street SE (Marion)		Begin Gravel	Rosebud Ln SE	0.27	0.61	0.34	120	0.01	A	2		23			Grav		40 - 50		Local		
	Rosebud Ln SE		B Street SE	Dead End	0.61	1.28	0.67	50	0.00	A	2		20			Grav		40		Local		
945	Santiam Loop SE		Stayton Rd SE	Stayton Rd SE	0	1.33	1.33	120	0.01	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
945 A	Santiam Ln SE		Santiam Loop	Dead End	0	0.25	0.25	20	0.00	A	2		18			Grav		40		Local		
946	Belden Dr SE		Stayton Rd SE	W Stayton Rd	0	0.69	0.69	400	0.02	A	2	4	18	4	Grav	Asph	Grav	50	Good	Local		
947	Bean Alley Rd SE		West Stayton Rd	End 2 lanes	0	0.82	0.82	180	0.01	A	2		19			Asph		40	Good	Local		
	Bean Alley Rd SE		Begin 1 lane	Dead End	0.82	0.9	0.08	20	0.00	A	1		10			Grav		40		Local		
947 A	Snoddy Dr SE		W Stayton Rd	Bean Alley Rd	0	0.72	0.72	260	0.02	A	2	3	18	3	Grav	Asph	Grav	40	Very Good	Local		
948	Porter Rd SE		W Stayton Rd	Shaff Rd SE	0	2.19	2.19	500	0.03	A	2	4	18	4	Grav	Asph	Grav	50	Good	Local		
949	Rainwater Ln Se		Stayton Rd SE	135 ft N of Stayton Rd	0	0.03	0.03	200	0.01	A	2		17			Asph		30		Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
	Rainwater Ln Se		135 ft N of Stayton Rd	115 ft S of Shaff Rd	0.03	1.47	1.44	80	0.01	A	2		21			Grav		60		Local		
	Rainwater Ln Se		115 ft S of Shaff Rd	Shaff Rd SE	1.47	1.5	0.03	60	0.00	A	2		27			Asph		60		Local		
950	Dieckman Ln SE		Stayton Rd SE	End Pavement	0	0.03	0.03	60	0.00	A	2		22			Asph		40	Very Good	Local		
	Dieckman Ln SE		Begin Gravel	No Name Rd	0.03	0.86	0.83	30	0.00	A	2		22			Grav		30 - 50		Local		
952	Jefferson St (Stayton)		10th Ave	Stayton City Limits	0	0.27	0.27	100	0.01	A	2	5	20	5	Grav	Asph	Grav	60		Local		
	Jefferson St (Stayton)		Stayton City Limits	Dead End	0.27	0.4	0.13	50	0.00	A	2		20			Grav		60		Local		
953	Boedigheimer Rd SE		Fern Ridge Rd	Coon Hollow Rd	0	1.23	1.23	640	0.04	A	2	5	18	5	Grav	Asph	Grav	60	Fair	Local		
953 A	Spenner Rd SE		Boedigheimer	106 ft E of Boedigheimer	0	0.02	0.02	200	0.01	A	2		22			Asph		40		Local		
	Spenner Rd SE		106 ft E of Boedigheimer	West End of Bridge	0.02	0.92	0.90	100	0.01	A	2		20			Grav		40		Local		
	Spenner Rd SE		West End of Bridge	East End of Bridge	0.92	0.97	0.05	50	0.00	A	2		24			Asph		40		Local		
	Spenner Rd SE		East End of Bridge	Beginning of Pavement	0.97	1.97	1.00	30	0.00	A	2		20			Grav		40		Local		
	Spenner Rd SE		Beginning of Pavement	Fern Ridge Rd	1.97	2.48	0.51	30	0.00	A	2	2	20	2	Grav	Asph	Grav	40	Very Good	Local		
954	Etzel Rd SE		Fern Ridge Rd	Dead End	0	0.29	0.29	10	0.00	A	2		14			Grav		40		Local		
955	Silbernagel Rd SE		Old Mehama Rd	Dead End	0.03	0.36	0.33	20	0.00	A	2		16			Grav		46		Local		
956	Fern Ridge Rd SE		Sigemund Rd	Hwy 22	0	2.94	2.94	300	0.02	A	2	4	19	4	Grav	Asph	Grav	60	Very Good	Local		
	Grove St SE		Hwy 22	Ferry St	2.94	3.13	0.19	600	0.03	A	2		20			Asph		50	Very Good	Local		
957	Teeters Rd SE		Wagner Rd SE	Teeters Rd Ahead	0	0.19	0.19	50	0.00	A	2		20			Asph		40	Very Good	Local		
959	Gingerbread St SE		Grove St SE	Hwy 226	0	0.05	0.05	350	0.02	A	2	8	19	8	Grav	Asph	Grav	60	Very Good	Local		
959 A	Wagner Rd SE		Hwy 22	300 ft N of Wagner Lane	0	0.45	0.45	350	0.02	A	2		20			Asph		60	Very Good	Local		
	Wagner Rd SE		300 ft N of Wagner Lane	State Forest Rd	0.45	3.55	3.10	80	0.01	A	2		20			Grav		60		Local		
959 B	Wagner Lane SE		Wagner Rd SE	150 ft E of Wagner Rd	0	0.03	0.03	60	0.00	A	2		20			Asph		60		Local		
	Wagner Lane SE		150 ft E of Wagner Rd	Dead End	0.03	0.24	0.21	20	0.00	A	1		12			Grav		60		Local		
960	North Fork Rd SE		Pioneer Rd SE	Gates Hill Rd	0	9.4	9.40	650	0.04	A	2	2	20	2	Grav	Asph	Grav	40 - ##	Very Good	Maj. Collector		
	North Fork Rd SE		Gates Hill Rd	End Shoulders	9.4	12.3	2.94	240	0.01	A	2	2	20	2	Grav	Asph	Grav	40 - 60	Very Good	Min. Collector		
	North Fork Rd SE		End Shoulders	Fawn Creek Rd	12.3	12.9	0.60	100	0.01	A	2		20			Asph		60	Very Good	Min. Collector		
	North Fork Rd SE		Fawn Creek Rd	Nat'l Forest Rd	12.9	14.3	1.31	80	0.00	A	2		20			Asph		60	Very Good	Min. Collector		
961	Taylor Park Rd SE		Pioneer Rd	270 ft E of Pioneer Rd	0	0.05	0.05	240	0.01	A	2		20			Asph		60	Very Good	Local		
	Taylor Park Rd SE		270 ft E of Pioneer Rd	Private Rd	0.05	2.23	2.18	160	0.01	A	2		20			Grav		60	Very Good	Local		

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Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
962	Pioneer Rd SE		North Fork Rd	300 ft S of Taylors Park	0	0.32	0.32	320	0.02	A	2	1	20	1	Grav	Asph	Grav	40	Very Good	Local		
	Pioneer Rd SE		300 ft S of Taylors Park	Begin Pavement	0.32	2.54	2.22	40	0.00	A	2	3	28	3	Grav	Asph	Grav	40	Very Good	Local		
	Pioneer Rd SE		Begin Pavement	Hwy 22	2.54	2.7	0.16	60	0.01	A	2		18			Grav		40		Local		
963	NE 4th Ave (Mill City)	Mill City	Hwy 22	NE Cherry St	0	0.07	0.07	120	0.01	A	2	4	20	4	Grav	Asph	Grav	40	Very Good	Urb. Local		
	NE 4th Ave (Mill City)	Mill City	NE Cherry St	Mill City CL Back	0.07	0.1	0.03	120	0.01	A	2		19			Asph		40	Very Good	Urb. Local		
	Hudel Rd SE		Mill City CL Back	End Pavement	0.1	0.2	0.10	90	0.01	A	2		19			Asph		40		Local		
	Hudel Rd SE		Begin Gravel	End 18' width	0.2	2.97	2.77	50	0.01	A	2		19			Grav		40		Local		
	Hudel Rd SE		Begin 14' width	Impassable Rd	2.97	3.7	0.73	20	0.00	A	2		19			Grav		40		Local		
963 A	Hudel Rd Se		Pioneer Rd SE	Cherry Creek	0	1.02	1.02	20	0.00	A	2		15			Grav		40		Local		
	Hudel Rd Se		Cherry Creek	Dead End	1.02	1.3	0.28	20	0.00	A	1		15			Grav		40		Local		
964	No Name		River Rd SE	Hwy 22	0	0.28	0.28	60	0.01	A	1		8			Unimp		40		Local		
965	River Rd SE		Hwy 22	Mill City CL	0	1.24	1.24	400	0.03	A	2		19			Asph		40	Very Good	Local		
	NW River Rd		Mill City CL	NW Alder St	1.24	1.57	0.33	300	0.02	A	2		19			Asph		40	Very Good	Local		
967	Horeb St (Gates)		Hwy 22	Sorbin Ave	0	0.19	0.19	300	0.02	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Urb. Collector		
	Horeb St (Gates)		Sorbin Ave	Maple St	0.07	0.19	0.13	200	0.01	A	2	2	20	2	Grav	Asph	Grav	60	Very Good	Urb. Collector		
	Horeb St (Gates)		Maple St	2789 ft N of Maple St	0.19	0.73	0.54	100	0.01	A	2		24			Grav		60		Urb. Local		
	Gates Hill Rd		2789 ft N of Maple St	North Fork Rd	0.73	3.76	3.03	60	0.00	A	2		22			Asph		60		Local		
968	Central St SE (Gates)		Hwy 22	Horeb St	0	1.87	1.87	400	0.03	A	2	1	18	1	Grav	Asph	Grav	40 - 60	Good	Urb. Local		
	Central St SE (Gates)		Horeb St	Riverview St	1.87	2.09	0.22	500	0.03	A	2	1	22	1	Grav	Asph	Grav	40	Good	Urb. Local		
	Riverview St		Central St SE	Sorbin Ave	2.09	2.19	0.10	500	0.03	A	2	1	22	1	Grav	Asph	Grav	40	Good	Urb. Local		
968 A	Horeb St SE (Gates)		Hwy 22	Sorbin Ave	0	0.07	0.07	1030	0.05	A	2	4	22	4	Grav	Asph	Grav	50	Good	Urb. Arterial		
	Sorbin Ave		Horeb St SE	Oak St	0.07	0.2	0.13	1000	0.05	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Urb. Arterial		
	Sorbin Ave		Oak St	Linn Co. Line	0.2	0.35	0.15	1250	0.04	A	2	5	32	5	Asph	Asph	Asph	40 - 60	Very Good	Urb. Arterial		
969	Wilco Rd (Stayton)		Stayton Rd	Shaff Rd SE	0	0.86	0.86	8300	0.38	C	2		28		Grav	Asph	Grav	80	Very Good	Urb. Arterial		
971	Minto-Packsaddle Pks Rd		Hwy 22	Hwy 22	0	0.8	0.80	80	0.01	A	2		24			Grav		40		Local		
972	Niagra Rd SE		Hwy 22	Hwy 22	0	0.27	0.27	10	0.00	A	2		14			Grav		40		Local		
980	Stonecrest Dr S		Liberty Rd S	End 17' width	0	0.04	0.04	120	0.01	A	2	1	17			Asph		40		Local		
	Stonecrest Dr S		Begin 14' width	Dead End	0.04	0.49	0.45	60	0.01	A	2	2	14			Grav		40		Local		
981	Oak Dr S		Ankeny Hill Rd	Lake Dr S	0	1.46	1.46	100	0.01	A	2	2	20	2	Grav	Asph	Grav	60	Good	Local		

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982	Lake Dr S		Oak Dr S	Liberty Rd S	0	0.92	0.92	150	0.01	A	2	2	20	2	Grav	Asph	Grav	60	Fair	Local		
983	Meadowood Ct SE		Wintercreek Rd SE	Culdesac	0	0.18	0.18	40	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Poor	Local		
984	Centerwood Rd SE		Wintercreek Rd SE	Culdesac	0	1.18	1.18	280	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
985	Southwood Dr SE		Edgewood St SE	Culdesac	0	0.05	0.05	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
986	Edgewood St SE		Centerwood Rd SE	Dead End	0	0.18	0.18	40	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
987	Ridgewood St SE		Eastwood Rd SE	Culdesac	0	0.13	0.13	40	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
988	Hillwood Rd SE		Centerwood Rd SE	Culdesac	0	0.05	0.05	40	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
989	Eastwood Rd SE		Centerwood Rd SE	Dead End	0	0.17	0.17	50	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
990	Fir Pl SE		Oak Dr S	Culdesac	0	0.17	0.17	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Poor	Local		
991	Scenic Heights Dr SE		Lake Dr S	Culdesac	0	0.39	0.39	60	0.00	A	2	5	22	5	Grav	Asph	Grav	60	Fair	Local		
992	Sunset Hills Dr SE		Summit Loop SE	Dead End	0	0.93	0.93	100	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
993	Garma Way SE		Summit Loop SE	Culdesac	0	0.43	0.43	80	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
994	Shadow Hills Dr SE		Summit Loop SE	Dead End	0	0.25	0.25	50	0.00	A	2		20			Asph			Very Good	Local		
995	Picard Pl SE		Valley View Rd SE	Culdesac	0	0.28	0.28	70	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
996	Ananonda Ln SE		Talbot Rd SE	Dead End	0	0.27	0.27	50	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Fair	Local		
997	Harvey St SE		White Ln SE	Helen St SE	0	0.36	0.36	220	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Poor	Local		
998	Mitchell St SE		Harvey St SE	Culdesac	0	0.16	0.16	70	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
999	Helen St SE		Harvey St SE	Culdesac	0	0.08	0.08	40	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
5000	Bethlehem Dr NE		Moniter McKee Rd	Dead End	0	0.34	0.34	260	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
5001	Chateau Dr NE		Carl Rd NE	Carl Rd NE	0	0.34	0.34	120	0.01	A	2		34			Asph		50	Very Good	Local		
6103	35th Ave N		Radiant Dr	Quinaby Rd NE	0	2.29	2.29	600	0.03	A	2	1	22	1	Grav	Asph	Grav	60	Very Good	Local		

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6201	Scott Ave NE		Hwy 99E	Peach Tree St NE	0	0.26	0.26	240	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
6202	Dover Ave NE		Hwy 99E	Peach Tree St NE	0	0.28	0.28	300	0.02	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
6203	Ramp St NE (Brooks)		Hwy 99E	57th Ave NE	0	0.42	0.42	360	0.02	A	2	4	18	4	Grav	Asph	Grav	60	Very Good	Local		
6220	Poinsetta St NE		Hwy 99E	Dead End	0	0.13	0.13	120	0.01	A	2		34			Asph		60	Good	Local	X	X
6221	45th Pl NE		Poinsetta St NE	Dead ENd	0	0.05	0.05	50	0.00	A	2		34			Asph		60	Good	Local		
6235	York Ave NE		Blossom Ave NE	Peach Tree St NE	0	0.19	0.19	120	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
6236	Blossom Ave NE		Dover Ave NE	Scott Ave NE	0	0.11	0.11	110	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
6241	Quartz St NE		River Rd NE	Curb Section	0	0.12	0.12	100	0.00	A	2		34			Asph		60	Good	Local		
	Quartz St NE		Curb Section	Suffold Rd	0.12	0.26	0.14	100	0.01	A	2		20			Asph		60	Good	Local		
6253	Huff Ave NE		Brooklake Dr NE	Dead End	0	0.21	0.21	400	0.02	A	2		34			Asph		60	Good	Local		
6289	Suffolk Rd NE		Clearlake Rd NE	Quartz St NE	0	0.23	0.23	40	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Poor	Local		
6293	Webb Ave NE (Labish V)		Hwy 99E (Portland Rd NE)	Peach Tree St	0	0.29	0.29	210	0.01	A	2	1	20	1	Grav	Asph	Grav	30	Very Good	Local		
6313	Edith Ave NE		Webb Ave NE	Dover Ave NE	0	0.05	0.05	100	0.01	A	2		20			Asph		60	Very Good	Local		
6313 A	Edith Ave NE		York Ave NE	Rd 3007 Ahd	0	0.07	0.07	100	0.01	A	2		20			Asph		60	Very Good	Local		
6314	Shady Oak Ln NE		Abiqua Rd NE	Pleasant Vally Dr	0	0.27	0.27	40	0.00	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Local		
6315	Pleasant Valley Dr NE		Shady Oak Ln NE	Culdesac	0	0.17	0.17	30	0.00	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Local		
6316	Riverbend Dr NE		Abiqua Rd NE	Culdesac	0	0.34	0.34	100	0.01	A	2	4	21	4	Grav	Asph	Grav	60	Very Good	Local		
6317	Luray Ave NE		Riverbend Dr NE	Culdesac	0	0.12	0.12	50	0.00	A	2	4	21	4	Grav	Asph	Grav	50	Very Good	Local		
7378	Grey-Mar St NE		64th Pl NE	Dead End	0	0.12	0.12	40	0.00	A	2	4	20	4	Grav	Asph	Grav	60	Poor	Local		
7380	Guava Ct NE		64th Pl NE	Culdesac	0	0.1	0.10	40	0.00	A	2	4	20	4	Grav	Asph	Grav	60	Very Poor	Local		
7383	59th Ave SE		State St	Dead End	0	0.25	0.25	170	0.01	A	2		34			Asph		60	Very Good	Local		
7401	53rd Ave NE		Lardon Rd NE	Dead End	0	0.04	0.04	10	0.00	A	2		34			Asph		60	Good	Local		

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7402	55th Ave Ne		Lardon Rd NE	Dead End	0	0.04	0.04	10	0.00	A	2		34			Asph		60	Very Good	Local		
7433	62nd Ct NE		Fruitland Rd	Culdesac	0	0.22	0.22	100	0.00	A	2		34			Asph		60	Good	Local		
7456	Warner Dr SE		Howell Prairie	Culdesac	0	0.1	0.10	90	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
7478	Ranay Dr SE		Howell Prairie	Dead End	0	0.33	0.33	100	0.01	A	2	3	20	3	Grav	Asph	Grav	60	Good	Local		
7479	Joel Ct SE		Howell Prairie	Culdesac	0	0.11	0.11	50	0.00	A	2	3	20	3	Grav	Asph	Grav	60	Very Good	Local		
7521	Sanrodee Dr SE		State St	Culdesac	0	0.38	0.38	150	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
7531	Daleview Rd SE		Sanrodee Dr SE	Dead End	0	0.18	0.18	60	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8296	Nathan St Se		76th Ave SE	Dead End	0	0.25	0.25	70	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8305	Tumalo Dr Se		59th Ave SE	Dead End	0	0.25	0.25	80	0.00	A	2		20			Asph		60	Very Good	Local		
8306	59th Ave SE		Macleay Rd SE	Dead End	0	0.27	0.27	180	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8307	Redwood Dr SE		Redwood Dr Bk	Culdesac	0	0.14	0.14	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8312	70th Ave SE		Aumsville Hwy	Dead End	0	0.27	0.27	60	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8313	83rd St SE		Jordan St SE	Dead End	0	0.53	0.53	110	0.01	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Local		
8314	Wagner Ct SE		83rd St SE	Culdesac	0	0.27	0.27	60	0.00	A	2	4	22	4	Grav	Asph	Grav	60	Very Good	Local		
8315	54th Ct SE		Lipscomb St	Dead End	0	0.2	0.20	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8316	55th Ct SE		Gath Rd SE	Culdesac	0	0.1	0.10	20	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Fair	Local		
8317	56th Ct SE		Lipscomb St	Dead End	0	0.08	0.08	20	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8318	57th Ct SE		Gath Rd SE	Culdesac	0	0.1	0.10	20	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8319	59th Ct SE		Lipscomb St	Culdesac	0	0.16	0.16	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8320	56th Ct SE		Lipscomb St	Culdesac	0	0.14	0.14	20	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8321	Mustang St SE		Aumsville Hwy	Culdesac	0	0.26	0.26	50	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Fair	Local		

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8322	Bronco Dr Se		Aumsvillle Hwy	Dead End	0	0.23	0.23	50	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8323	Pinto Ct SE		Bronco Dr SE	Culdesac	0	0.09	0.09	30	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Local		
8324	Arbordale Dr SE		62nd Ave SE	Culdesac	0	0.21	0.21	60	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8325	Village View Ct SE		Hwy 214	Culdesac	0	0.34	0.34	110	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8326	Walina Ct SWe		Aumsvile Hwy	Culdesac	0	0.62	0.62	120	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8327	Glenwild Ct SE		Witzel Road Se	Culdesac	0	0.22	0.22	50	0.00	A	2	5	22	5	Grav	Asph	Grav	60	Very Good	Local		
8328	Terry Ct SE		75th Ave SE	Culdesac	0	0.17	0.17	60	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Fair	Local		
8329	Charleston Dr SE		Aumsville Hwy	Dead End	0	0.35	0.35	80	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8331	Pudding Creek Dr		74th Ave SE	82nd Ave SE	0	0.85	0.85	250	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8332	Timberline Ln SE		Sky Terrace	Dead End	0	0.15	0.15	100	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Fair	Local		
8333	Sonya Dr SE		Macleay Rd SE	Dead End	0	0.24	0.24	100	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8334	Dumore Dr SE		Jordan St SE	Silver Falls Hwy	0	1.09	1.09	240	0.01	A	2	5	21	5	Grav	Asph	Grav	60	Fair	Local		
8335	Edcliff Ct Se		Dumore Dr SE	Culdesac	0	0.15	0.15	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8336	Jeanne Ct Se		Dumore Dr Se	Culdesac	0	0.08	0.08	20	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Poor	Local		
8337	Maranatha Ct Se		Enchanted Way Se	Culdesac	0	0.37	0.37	120	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8338	Zion Ct SE		Maranatha Ct	Culdesac	0	0.06	0.06	30	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Very Good	Local		
8339	Fir Tree Ct SE		Battlecreek Rd	Dead End	0	0.6	0.60	150	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Fair	Local		
8340	Concomly Rd S		Skyline Rd S	Dead End	0	0.94	0.94	400	0.02	A	2	4	22	4	Grav	Asph	Grav	60	Good	Local		
8341	Saghalie Dr S		Concomly Road	Concomly Rd	0	0.95	0.95	150	0.01	A	2	5	21	5	Grav	Asph	Grav	60	Good	Local		
8342	Nanitch Cir S		Culdesac	Culdesac	0	0.24	0.24	30	0.00	A	2	5	21	5	Grav	Asph	Grav	60		Local		
8348	Stone Field Ct SE		Mill Creek Rd	Culdesac	0	0.13	0.13	40	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Fair	Local		

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8344	Inland Dr S		Viewcrest Rd S	Croisan Ridge	0	0.15	0.15	80	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8345	Roberts Ridge Rd S		Pettyjohn Rd S	Culdesac	0	0.25	0.25	40	0.00	A	2	5	22	5	Grav	Asph	Grav	60	Fair	Local		
8346	James Way Dr SE		Steinkamp Road	Sherman Rd SE	0	0.66	0.66	130	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8347	78th Ave SE		Harpole St SE	Dead End	0	0.22	0.22	70	0.00	A	2	5	20	5	Grav	Asph	Grav	60		Local		
8348	Sierra Dr SE		Timberline Ln	Culdesac	0	0.12	0.12	60	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8349	Snow Peak Way SE		Timberline Ln	Culdesac	0	0.12	0.12	50	0.00	A	2	5	20	5	Grav	Asph	Grav	50	Good	Local		
8350	Lofty Loop SE		Aumsville Hwy	Aumsville Hwy	0	0.4	0.40	50	0.00	A	2		22			Asph		60	Very Good	Local		
8351	Rippling Brook Dr SE		Macleay Rd	House #6844	0	0.42	0.42	180	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
	Rippling Brook Dr SE		House #6844	70th Ave	0.42	0.57	0.15	100	0.00	A	2	5	23	5	Grav	Asph	Grav	60	Very Good	Local		
8352	River Springs Dr S		Vitae Springs	Dead End	0	0.67	0.67	150	0.01	A	2		21			Asph		60	Very Good	Local		
8353	Southwood Court SE		Sunnyside Road	Culdesac	0	0.2	0.20	80	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8360	Teral Ct SE		Delaney Rd SE	Culdesac	0	0.16	0.16	60	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8361	Medina LN SE		Joseph St SE	Dead End	0	0.42	0.42	30	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8362	Kalakala Cir S		Saghalie Rd S	Culdesac	0	0.2	0.20	50	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
8364	Barbara Ln SE		Stainkamp Rd	Culdesac	0	0.37	0.37	100	0.00	A	2	5	20	5	Grav	Asph	Grav	60	Very Good	Local		
8365	Val View Dr SE		Witzel Rd SE	Mickey St	0	0.36	0.36	350	0.02	A	2	5	20	5	Grav	Asph	Grav	60	Poor	Local		
8366	76th Ave SE		Olney St SE	Begin 60' R/W	0	0.16	0.16	220	0.01	A	2	5	20	5	Grav	Asph	Grav	28	Good	Local		
	76th Ave SE		Begin 60' R/W	Nathan St SE	0.16	0.29	0.13	180	0.01	A	2	5	20	5	Grav	Asph	Grav	60	Good	Local		
	76th Ave SE		Nathan St SE	Private Rd	0.29	0.44	0.15	50	0.00	A	2		17			Asph		60	Good	Local		
8367	Croisan Ridge Way S		Inland Dr S	Dead End	0	0.19	0.19	40	0.00	A	2	5	24	5	Grav	Asph	Grav	60	Good	Local		
8368	Burton PL SE		Culdesac	Culdesac	0	0.17	0.17	40	0.00	A	2		20			Asph		60	Very Good	Local		
8369	Lois Ct SE		Tanglewood Way	Culdesac	0	0.06	0.06	40	0.00	A	2		20			Asph		50	Very Good	Local		

Appendix B: Marion County Rural Roadway Inventory

1/18/2006 10:25

Road No.	Road Name	City	From	To	Milepoint From	Milepoint To	Length Segment	2003 Volumes	2003 V/C	2003 LOS	No. Lanes	Widths L Sh.	Widths Tr. Surf.	Widths R Sh.	Type L Sh.	Type Tr. Surf.	Type R Sh.	R/W Width	Pavement Cond.	2003 Functional Class	Sidewalks Lt.	Sidewalks Rt.
8370	Serenity Dr SE		Tranquility Ct	Dead End	0	0.17	0.17	100	0.01	A	2		20			Asph		60	Good	Local		
8371	Tranquility Ct SE		Serenity Dr SE	Culdesac	0	0.06	0.06	40	0.00	A	2		20			Asph		50	Good	Local		
8372	Baber Ct SE		Serenity Dr SE	Culdesac	0	0.19	0.19	40	0.00	A	2		20			Asph		60	Very Good	Local		
8373	Deer Lake Ct SE		Battle Crk Rd	Culdesac	0	0.61	0.61	160	0.01	A	2	2	22	2	Grav	Asph	Grav	60	Very Good	Local		
8374	Fox Hollow Dr SE		Batle Creek	Dead End	0	0.2	0.20	100	0.00	A	2		22			Asph		60	Good	Local		
8375	Mahalo Dr SE		Fox Hollow Dr	Dead End	0	0.12	0.12	60	0.00	A	2		22			Asph		60	Good	Local		
8376	Mahalo Ct SE		Mahalo Dr SE	Culdesac	0	0.11	0.11	40	0.00	A	2		22			Asph		50	Very Good	Local		
8377	Kwonesum Ct S		Saghalie Dr Se	Dead End	0	0.23	0.23	30	0.00	A	2	3	22	3	Grav	Asph	Grav	60	Very Good	Local		
8384	Barcelona Dr SE		Gath Rd	Dead End	0	0.3	0.30	80	0.00	A	2	3	22	3	Grav	Asph	Grav	60	Good	Local		
8385	Ditter Dr SE		Sherman Rd SE	Dead End	0	0.4	0.40	70	0.00	A	2		20			Asph		60	Very Good	Local		
8386	James Way SE		Sherman Rd	Dead End	0	0.47	0.47	50	0.00	A	2	4	20	4	Grav	Asph	Grav	60	Very Good	Local		

Marion County Rural Sidewalk Inventory

Road Name	From	To	Milepoint From	Milepoint To	Length Of Segment	ADT Code	ADT			Existing Capacity	Existing Volume	Exist V/C	Exist LOS	Lane Adj.	Shld. Adj.	Comb. Adj.	Adj. Factor	Adj. V/C	Adj. LOS	Future Volume	Future V/C	Adj. V/C	Future LOS	No. Lanes	Widths Lt. Sh.	Widths Tr. Surf.	Widths Rt. Sh.	Type Lt. Sh.	Type Tr. Surf.	Type Rt. Sh.	Right Of Way	Pavement Cond.	Functional Classification	Sidewalks Lt.	Sidewalks Rt.	Sidewalks Lt.	Sidewalks Type	Sidewalks Curb	Sidewalks Rt.	Sidewalks Type	Sidewalks Curb	
11th St (Aumsvill	Aumsville Hwy SE	Aumsville City Limit (A	5.41	5.48	0.07	4	3000	-	4999	24000	3200	0.133333	B	4	0.2	4.2	1.08	0.144	B					2	5	22	5	Asph	Asph	Asph	60		Maj. Collector	X		5	Conc	Curb				11th St (A	1
11th St (Aumsvill	Aumsville City Limit (	Cleveland St	5.48	5.62	0.14	4	3000	-	4999	24000	3200	0.133333	B	4	0.2	4.2	1.08	0.144	B					2	5	22	5	Asph	Asph	Asph	60		Maj. Collector	X		5	Conc	Curb				11th St (A	2
1st Ave (Stayton)	Bridge over Mill Race	Water St	0.3	0.34	0.04	5	5000	-	7999	24000	7300	0.304167	C	3	0.2	3.2	1	0.304167	C					2	8	24	8	Grav	Asph	Grav	60	Poor	Urb. Min. Arterial	X	X	5	Conc	Curb	5	Conc	Curb	1st Ave (S	1
1st Ave N (Stayt	Washington St	Regis St	0	0.5	0.5	6	8000	-	14999	28000	9100	0.325	C	3		3	1.43	0.46475	D					2		40			Asph		60	Very Poor	Urb. Prin. Arterial	X	X	5	Conc	Curb	5	Conc	Curb	1st Ave N	1
1st Ave N (Stayt	Regis St	Shaff Rd SE	0.5	0.63	0.13	6	8000	-	14999	28000	9100	0.325	C	3		3	1.43	0.46475	D					2		40			Asph		60	Very Poor	Urb. Prin. Arterial		X				5	Conc	Curb	1st Ave N	2
3rd St (Gervais)	Douglas Ave	Fir Ave	0.91	1.01	0.1	2	1000	-	1999	24000	2500	0.104167	A	4	0.2	4.2	1.08	0.1125	A					2	5	22	5	Grav	Asph	Grav	60	Good	Maj. Collector	X		4	Conc					3rd St (Ge	1
3rd St (Gervais)	Fir Ave	Hemlock Ave	1.01	1.11	0.1	2	1000	-	1999	24000	2500	0.104167	A	4	0.2	4.2	1.08	0.1125	A					2	5	22	5	Grav	Asph	Grav	60	Good	Maj. Collector	X	X	4	Conc		4	Conc		3rd St (Ge	2
3rd St (Gervais)	Hemlock Ave	Ivy Ave	1.11	1.16	0.05	2	1000	-	1999	24000	2500	0.104167	A	4	0.2	4.2	1.08	0.1125	A					2	5	22	5	Grav	Asph	Grav	60	Good	Maj. Collector	X		4	Conc					3rd St (Ge	3
3rd St (Gervais)	3rd St	SPRR Xing	1.16	1.23	0.07	2	1000	-	1999	24000	2500	0.104167	A	4	0.2	4.2	1.08	0.1125	A					2	5	22	5	Grav	Asph	Grav	60	Fair	Maj. Collector	X		4	Conc					3rd St (Ge	4
3rd St (Scotts Mi	Begin sidewalk (right)	Begin sidewalk (left)	7.15	7.17	0.02	2	1000	-	1999	24000	1500	0.0625	A	5		5	1.72	0.1075	A					2	2	20	2	Grav	Asph	Grav	60		Maj. Collector		X				8	Conc	Curb	3rd St (Sc	1
3rd St (Scotts Mi	Begin sidewalk (left)	Grandview Ave	7.17	7.25	0.08	2	1000	-	1999	24000	1500	0.0625	A	5		5	1.72	0.1075	A					2	2	20	2	Grav	Asph	Grav	60		Maj. Collector	X	X	8	Asph	Curb	8	Conc	Curb	3rd St (Sc	2
Academy St (Mt.	Begin sidewalk	End sidewalk	0.03	0.05	0.02		<	500	18000					3		3	1.43							2		34			Asph		40	Very Good	Local		X				4	Conc	Curb	Academy	1
Academy St (Mt.	Begin sidewalk	End Sidewalk	0.09	0.1	0.01		<	500	18000					3		3	1.43							2		34			Asph		40	Very Good	Local		X				5	Conc		Academy	2
Academy St (Mt.	Gilles St	End sidewalk	0.2	0.28	0.08		<	500	18000					3		3	1.43							2		34			Asph		40	Very Good	Local	X		4	Conc					Academy	3
Blanchet Ave (St.	Main St	St. Paul City Limits	0	0.34	0.34	1	500	-	999	18000				4		4	1.54							2	1	22	1	Grav	Asph	Grav	60	Good	Local	X		4	Conc					Blanchet	1
Blivens Ln	14181 Blivens Ln	14181 Blivens Ln	0.38	0.43	0.05																									60		Local		X				4	Conc	Curb		
Brooklake Road	5045 Brooklake Road	5045 Brooklake Road	0.21	0.24	0.03																									60		Arterial	X		5	Conc	Curb					
Butteville Rd	Schuler Rd	2nd St	0.25	0.37	0.12																									60		Min. Collector	X		4	Conc	Curb				Butteville	1
2nd St	Butteville Rd	Union St	0.37	0.48	0.11																									60		Min. Collector	X		4	Conc	Curb				Butteville	2
Camellia Ave	Wisteria Dr	End Cul-de-sac	0	0.1	0.1																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Camellia D	1
Carissa Ave	Wisteria Dr	End Cul-de-sac	0	0.1	0.1																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Carissa Av	1
Center St (Subli	Sublimity City Limits (	Division St	1.63	1.78	0.15	5	5000	-	7999	28000	6300	0.225	B	3	0.1	3.1	1.16	0.261	C					2		48	6		Asph	Grav	60		Co. Arterial	X		5	Conc	Curb				Center St (	1
Center St (Subli	Division St	Church St	1.78	1.94	0.16	5	5000	-	7999	28000	6300	0.225	B	3	0.1	3.1	1.16	0.261	C					2		48	6		Asph	Grav	60		Co. Arterial	X		5	Conc	Curb				Center St (	2
Center St (Subli	Church St	Denny St	1.94	1.99	0.05	5	5000	-	7999	28000	6300	0.225	B	3	0.1	3.1	1.16	0.261	C					2		48	6		Asph	Grav	60		Co. Arterial	X	X	5	Conc	Curb	Var	Asph	Curb	Center St (	3
Center St (Subli	Denny St	Main St	1.99	2.05	0.06	5	5000	-	7999	28000	6300	0.225	B	3	0.1	3.1	1.16	0.261	C					2		48	6		Asph	Grav	60		Co. Arterial	X	X	6	Conc	Curb	6	Conc	Curb	Center St (	4
Center St (Subli	Main St	Starr St	2.05	2.13	0.08	5	5000	-	7999	28000	6300	0.225	B	3	0.1	3.1	1.16	0.261	C					2		48	6		Asph	Grav	60		Co. Arterial	X	X	6	Conc	Curb	6	Conc	Curb	Center St (	5
Champoeg Rd	French Prairie Rd	Park Entrance	2.4	2.58	0.18																									60		Local	X		4	Asph					Champoeg	1
Church St (Subli	SE Clay St	SE Broadway St	0.05	0.11	0.06			<	500	18000	1400	0.077778	A	4	0.2	4.2	1.08	0.084	A					2	6	22	6	Asph	Asph	Asph	60	Good	Min. Collector	X		4	Conc	Curb				Church St	1
Church St (Subli	Begin sidewalk (right)	Pine St	0.17	0.33	0.16			<	500	18000	1400	0.077778	A	4	0.2	4.2	1.08	0.084	A					2	6	22	6	Asph	Asph	Asph	60	Good	Min. Collector		X				4	Conc	Curb	Church St	2
Church St (Subli	Pine St	Dove Dr	0.33	0.44	0.11			<	500	18000	1400	0.077778	A	4	0.2	4.2	1.08	0.084	A					2	6	22	6	Asph	Asph	Asph	60	Good	Min. Collector	X		4	Conc	Curb				Church St	3
Erica Dr	Laurel Ave	Dead end	0	0.3	0.3																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Erica Dr	1
Floral Ave	Wisteria Dr	End Cul-de-sac	0.03	0.14	0.11																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Floral Ave	1
Grandview Ave (S	4th St	3rd St	1.14	1.19	0.05	0		<	500	18000				5		5	1.72							2	1	21	1	Grav	Asph	Grav	40	Good	Local	X	X	8	Asph	Curb	8	Asph	Curb	Grandview	1
J St NE (Hubbard	3rd St	Alley	0.19	0.22	0.03	2	1000	-	1999	24000	3100	0.129167	B	5	0.1	5.1	1.38	0.17825	B					2	4	20	4	Grav	Asph	Grav	60		Maj. Collector	X	X	3	Conc	Curb	3	Conc	Curb	J St NE (H	1
J St NE (Hubbard	Alley	4th St	0.22	0.25	0.03	2	1000	-	1999	24000	3100	0.129167	B	5	0.1	5.1	1.38	0.17825	B					2	4	20	4	Grav	Asph	Grav	60		Maj. Collector	X		3	Conc	Curb				J St NE (H	2
Lakewood Drive	Grim Rd	Elk Lake Way	0	0.36	0.36																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Lakewood	1
Laurel Ave	Wisteria Dr	Cedar Ct	0	0.11	0.11																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Laurel Ave	1
Lilac Lane	Wisteria Dr	Dead end	0	0.03	0.03																									60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Lilac Lane	
Main St (Aumsvill	11th St	10th St	3.6	3.654	0.054	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		Var	Asph					Main St (A	1
Main St (Aumsvill	10th St	9th St	3.65	3.7	0.05	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		5	Conc					Main St (A	2
Main St (Aumsvill	9th St	W Stayton Rd	3.7	3.75	0.05	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial									Main St (A	3
Main St (Aumsvill	W Stayton Rd	7th St	3.75	3.8	0.05	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	5	Asph		4	Conc		Main St (A	4
Main St (Aumsvill	7th St	6th St	3.8	3.84	0.04	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	4	Conc		Var	Asph	Curb	Main St (A	5
Main St (Aumsvill	6th St	5th St	3.84	3.89	0.05	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	5	Conc	Curb	Var	Asph	Curb	Main St (A	6
Main St (Aumsvill	5th St	4th St	3.89	3.94	0.05	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	5	Conc		5	Conc		Main St (A	7
Main St (Aumsvill	4th St	3rd St	3.94	3.99	0.05	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	5	Conc		Var	Conc	Curb	Main St (A	8
Main St (Aumsvill	3rd St	SPRR Xing	3.99	4.12	0.13	4	3000	-	4999	28000	3000	0.107143	A	3	0.2	3.2	1	0.107143	A					2	5	24	5	Asph	Asph	Asph	60	Very Good	Co. Arterial		X				5	Conc	Curb	Main St (A	9
Main St (Donald)	Matthieu Ln	Ehlen St	0	0.06	0.06	2	1000	-	1999	18000	1000	0.055556	A	5		5	1.72	0.095556	A					2		20			Asph		60		Min. Collector	X	X	4	Conc		4	Conc		Main St (D	1
Main St (Donald)	Ehlen St	End sidewalk (left)	0.06	0.15	0.09	2	1000	-	1999	18000	1000	0.055556	A	5		5	1.72	0.095556	A					2		20			Asph		80		Min. Collector	X		4	Conc					Main St (D	2
Main St (Donald)	Butteville Rd	Crisell St	0.94	1	0.06	2	1000	-	1999	18000	1400	0.077778	A	3		3	1.43	0.111222	A					2		40			Asph		50	Very Good	Min. Collector	X	X	4	Conc		6	Conc		Main St (D	1
Main St (Donald)	Crisell St	Feller St	1	1.06	0.06	2	1000	-	1999	18000	1400	0.077778	A	3		3	1.43	0.111222	A					2		40			Asph		50	Very Good	Min. Collector	X		6	Conc					Main St (D	2
Main St (Donald)	Feller St	Williams St	1.06	1.12	0.06	2	1000	-	1999	18000	1400	0.077778	A	3		3	1.43	0.111222	A					2		40			Asph		50	Very Good	Min. Collector	X	X	6	Conc		4	Conc		Main St (D	3
Main St (Donald)	Williams St	Matthieu St	1.12	1.16	0.04	2	1000	-	1999	18000	1400	0.077778	A	3		3	1.43	0.111222	A					2		40			Asph		50	Very Good	Min. Collector	X	X	4	Conc		4	Conc		Main St (D	4
Manning Rd	Begin sidewalk (left)	Dorion Ln	0.02	0.1	0.08	1	500	-	999	18000				6	0.1	6.1	1.64							2	4	19	4	Grav	Asph	Grav	60	Fair	Local	X		4	Conc					Manning R	1
Meridian Rd	Monitor Elem School	Woodburn-Monitor Rd	6.48	6.56	0.08	3	2000	-	2999	24000	2200	0.091667	A	5	0.1	5.1	1.38	0.1265	B					2	4	20	4	Grav	Asph	Grav	50	Good	Maj. Collector	X		7	Asph	Curb				Meridian R	1
N 3rd St (Turner)	Mill Creek Bridge	End bridge	0	0.03	0.03	4	3000	-	4999	28000	2900	0.103571	A	3	0.1	3.1	1.16	0.120143	B					2	4	24	4	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		5	Conc	Curb				N 3rd St (T	1
N 3rd St (Turner)	Ash St	Cedar St	0.04	0.09	0.05	4	3000	-	4999	28000	2900	0.103571	A	3	0.1	3.1	1.16	0.120143	B					2	4	24	4	Asph	Asph	Asph	60	Very Good	Co. Arterial		X				5	Conc		N 3rd St (T	2
N Center St (Sub	Begin sidewalk (left)	Begin sidewalk (right)	0.03	0.13	0.1	4	3000	-	4999	28000	3800	0.135714	B	4	0.2	4.2	1.08	0.146571	B					2	6	23	6	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		4	Conc	Curb				N Center	1
N Center St (Sub	Begin sidewalk (right)	Crest St	0.13	0.15	0.02	4	3000	-	4999	28000	3800	0.135714	B	4	0.2	4.2	1.08	0.146571	B					2	6	23	6	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		4	Conc	Curb				N Center	2

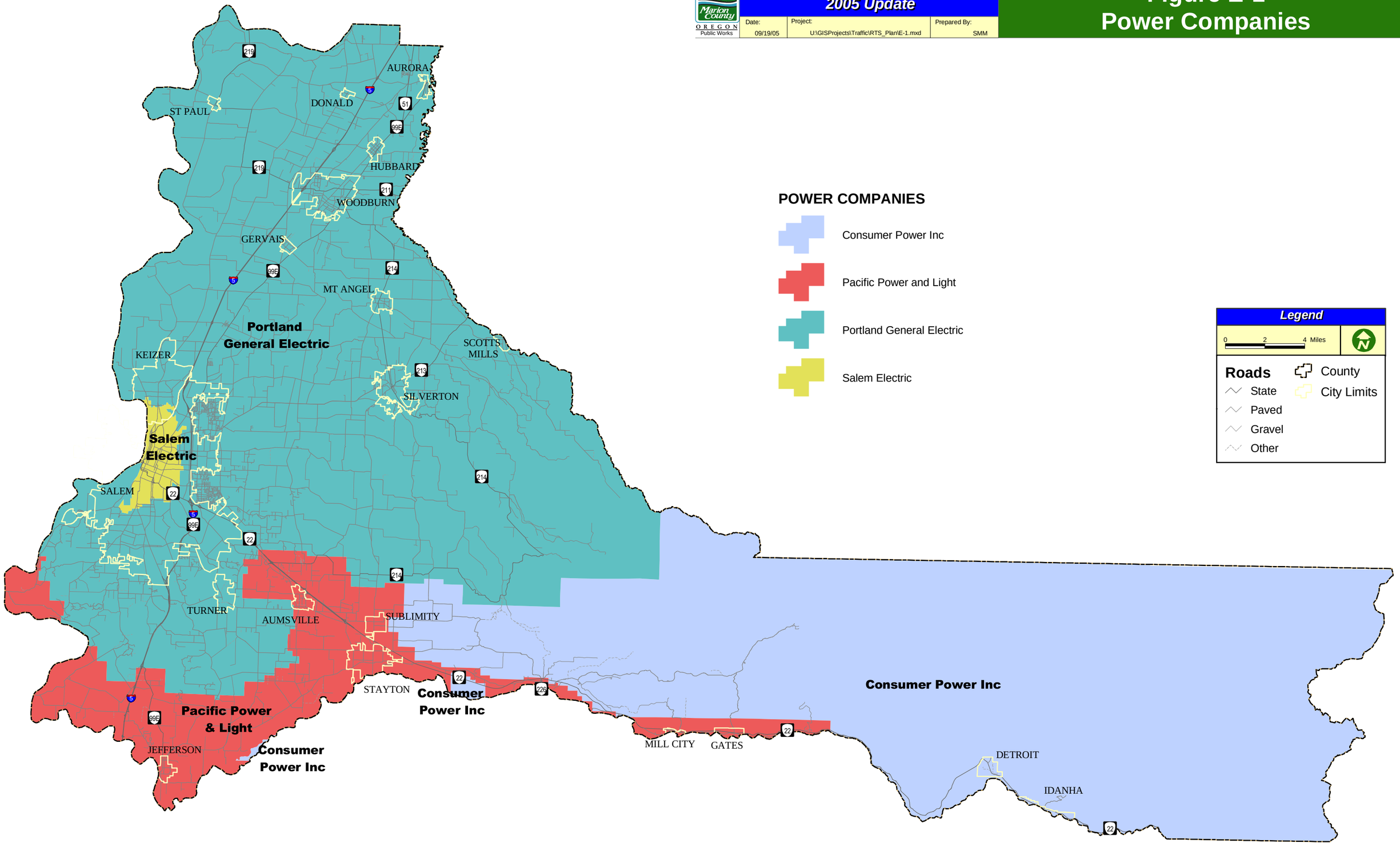
N Center St (Sub	Crest St	5th St	0.15	-	0.19	0.04	4	3000	-	4999	28000	3800	0.135714	B	4	0.2	4.2	1.08	0.146571	B	2	6	23	6	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	4	Conc	Curb	4	Conc		N Center	3
N Center St (Sub	5th St	Sublimity City Limits	0.19	-	0.24	0.05	4	3000	-	4999	28000	3800	0.135714	B	4	0.2	4.2	1.08	0.146571	B	2	6	23	6	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	5	Conc		4	Conc		N Center	4
Poinsetta St	Hwy 99E	45th Place	0	-	0.05	0.05																						60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Poinsetta	1
Reserve St (Silve	Begin Pavement	Begin Silverton city str	0.1	-	0.23	0.13			<	500	18000				3		3	1.43			2		34			Asph		60		Urb. Local	X		5	Conc	Curb				Reserve St	1
River Rd (St. Pau	Park Ave	Begin sidewalk (right)	15.62	-	15.66	0.04	3	2000	-	2999	28000	2600	0.092857	A	4	0.1	4.1	1.25	0.116071	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		5	Conc	Curb				River Rd (	1
River Rd (St. Pau	Begin sidewalk (right)	Blanchet Ave	15.66	-	15.68	0.02	3	2000	-	2999	28000	2600	0.092857	A	4	0.1	4.1	1.25	0.116071	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	5	Conc	Curb	5	Conc	Curb	River Rd (	2
River Rd (St. Pau	Blanchet Ave	Hwy 219	15.68	-	15.72	0.04	3	2000	-	2999	28000	2600	0.092857	A	4	0.1	4.1	1.25	0.116071	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		X				5	Conc		River Rd (	3
Rockdale St	Hwy 99E	Riverton St	0	-	0.26	0.26																						60		Local		X				4	Conc	Curb	Rockdale	1
S Main St (Jeffer	Begin sidewalk (left)	Greenwood Dr	0.06	-	0.12	0.06	4	3000	-	4999	24000	3000	0.125	B	4		4	1.54	0.1925	B	2		22			Asph		50	Fair	Urb. Min. Arterial	X		5	Conc					S Main St	1
Shaff Rd (Stayto	Golf Club Rd SE	Quail Run Ave	1.51	-	1.58	0.07	4	3000	-	4999	24000	4900	0.204167	B	3	0.2	3.2	1	0.204167	B	2	5	36	5	Asph	Asph	Asph	60	Good	Urb. Min. Arterial		X				5	Conc		Shaff Rd (	1
Shaff Rd (Stayto	Quail Run Ave	End sidewalk (right)	1.58	-	1.66	0.08	4	3000	-	4999	24000	4900	0.204167	B	3	0.2	3.2	1	0.204167	B	2	5	36	5	Asph	Asph	Asph	60	Good	Urb. Min. Arterial	X	X	4	Conc		5	Conc		Shaff Rd (	2
Shaff Rd (Stayto	End sidewalk (right)	Kendle Way SE	1.66	-	1.85	0.19	4	3000	-	4999	24000	4900	0.204167	B	3	0.2	3.2	1	0.204167	B	2	5	36	5	Asph	Asph	Asph	60	Good	Urb. Min. Arterial	X		4	Conc					Shaff Rd (	3
Shaff Rd (Stayto	Stayton City Limits (A	Gardner Ave	2.01	-	2.03	0.02	4	3000	-	4999	24000	5400	0.225	B	4	0.1	4.1	1.25	0.28125	C	2	5	22	1	Asph	Asph	Asph	60	Good	Urb. Min. Arterial	X	X	5	Conc		5	Conc		Shaff Rd (	4
Shaff Rd (Stayto	Gardner Ave	Stayton City Limits (Bk	2.03	-	2.14	0.11	4	3000	-	4999	24000	5400	0.225	B	4	0.1	4.1	1.25	0.28125	C	2	5	22	1	Asph	Asph	Asph	60	Good	Urb. Min. Arterial		X				5	Conc		Shaff Rd (	5
Starr St (Sublimit	Cascade Hwy	Begin sidewalk (left)	0	-	0.03	0.03	1	500	-	999	18000				4	0.2	4.2	1.08			2	5	22	5	Asph	Asph	Asph	60	Very Good	Local		X				5	Conc	Curb	Starr St (S	1
Starr St (Sublimit	Begin sidewalk (left)	End sidewalk (left)	0.03	-	0.07	0.04	1	500	-	999	18000				4	0.2	4.2	1.08			2	5	22	5	Asph	Asph	Asph	60	Very Good	Local	X		4	Conc					Starr St (S	2
Starr St (Sublimit	Broadway St	End sidewalk (left)	0.11	-	0.12	0.01	1	500	-	999	18000				4	0.2	4.2	1.08			2	5	22	5	Asph	Asph	Asph	60	Very Good	Local	X	X	4	Conc		4	Conc	Curb	Starr St (S	3
Starr St (Sublimit	End sidewalk (left)	Begin sidewalk (left)	0.12	-	0.16	0.04	1	500	-	999	18000				4	0.2	4.2	1.08			2	5	22	5	Asph	Asph	Asph	40	Very Good	Local		X				4	Conc	Curb	Starr St (S	4
Starr St (Sublimit	Begin sidewalk (left)	End sidewalk (left)	0.16	-	0.24	0.08	1	500	-	999	18000				4	0.2	4.2	1.08			2	5	22	5	Asph	Asph	Asph	40	Very Good	Local	X		4	Conc					Starr St (S	5
Starr St (Sublimit	Hartman Meadows	NW Downy St	3.33	-	3.5	0.17	3	2000	-	2999	28000	2300	0.082143	A	4	0.1	4.1	1.25	0.102679	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial	X		5	Conc	Curb				Starr St (S	1
Starr St (Sublimit	NW Downy St	NW Crater St	3.5	-	3.55	0.05	3	2000	-	2999	28000	2300	0.082143	A	4	0.1	4.1	1.25	0.102679	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	4	Conc		4	Conc		Starr St (S	2
Starr St (Sublimit	NW Crater St	NW Parker St	3.55	-	3.59	0.04	3	2000	-	2999	28000	2300	0.082143	A	4	0.1	4.1	1.25	0.102679	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial	X	X	4	Conc		4	Conc		Starr St (S	3
Starr St (Sublimit	NW Parker St	NW Johnson St	3.59	-	3.64	0.05	3	2000	-	2999	28000	2300	0.082143	A	4	0.1	4.1	1.25	0.102679	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		X				5	Conc	Curb	Starr St (S	4
Starr St (Sublimit	NW Johnson St	N Center St	3.64	-	3.69	0.05	3	2000	-	2999	28000	2300	0.082143	A	4	0.1	4.1	1.25	0.102679	A	2	3	22	3	Asph	Asph	Asph	60	Very Good	Co. Arterial		X				Var	Asph	Curb	Starr St (S	5
Warbler Ln	Meadow Dr NE	Warbler Ln	0	-	0.14	0.14			<	500	18000				3		3	1.43			2		34			Asph		60	Very Good	Local	X	X	3	Conc	Curb	3	Conc	Curb	Warbler Ln	1
Wash St/Jefferso	1st St	N 3rd Ave	0	-	0.1	0.1	4	3000	-	4999	24000	5500	0.229167	B	3		3	1.43	0.327708	C	2		45			Asph		60	Good	Urb. Min. Arterial	X	X	6	Conc	Curb	6	Conc	Curb	Wash St/J	1
Wash St/Jefferso	N 3rd Ave	N 6th Ave	0.1	-	0.26	0.16	4	3000	-	4999	24000	5500	0.229167	B	3		3	1.43	0.327708	C	2		40			Asph		60	Good	Urb. Min. Arterial	X	X	4	Conc		4	Conc		Wash St/J	2
Wash St/Jefferso	E Washington St	Jefferson St	0.26	-	0.31	0.05	4	3000	-	4999	24000	5500	0.229167	B	3		3	1.43	0.327708	C	2		40			Asph		60	Good	Urb. Min. Arterial	X	X	4	Conc		4	Conc		Wash St/J	3
Wash St/Jefferso	N 6th Ave	N 10th Ave	0.31	-	0.55	0.24	4	3000	-	4999	24000	3800	0.158333	B	3		3	1.43	0.226417	B	2		40			Asph		60	Good	Urb. Min. Arterial	X	X	4	Conc		4	Conc		Wash St/J	4
Wash St/Jefferso	Jefferson St	E Santiam St	0.55	-	0.61	0.06	4	3000	-	4999	24000	3800	0.158333	B	3		3	1.43	0.226417	B	2		50			Asph		60	Good	Urb. Min. Arterial	X		4	Conc	Curb				Wash St/J	5
Westfield St (Silv	Robert Frost School	McClaine St	4.52	-	4.87	0.35			<	500	24000				4	0.1	4.1	1.25			2	3	22	3	Asph	Asph	Asph	60	Good	Urb. Min. Arterial	X		5	Conc					Westfield	1
Wisteria Dr	Boones Ferry Rd	Wisteria Ct	0	-	0.54	0.54																						60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Wisteria D	1
Wisteria Ct	Wisteria Dr	End Cul-de-sac	0.54	-	0.6	0.06																						60		Local	X	X	4	Conc	Curb	4	Conc	Curb	Wisteria D	2
Woodburn-Monit	Begin sidewalk	Meridian Rd	2.07	-	2.11	0.04	2	1000	-	1999	24000	1000	0.041667	A	5		5	1.72	0.071667	A	2		20			Surf		50	Poor	Maj. Collector	X	X	4	Conc		5	Conc	Curb	Woodburn-	1
Woodburn-Monit	Meridian Rd	End sidewalk	2.11	-	2.14	0.03	2	1000	-	1999	24000	1000	0.041667	A	5		5	1.72	0.071667	A	2		20			Surf		50	Poor	Maj. Collector	X		5	Conc					Woodburn-	2

Rural Transportation System Plan
2005 Update

Marion County
OREGON
Public Works

Date:	Project:	Prepared By:
09/19/05	U:\GISProjects\Traffic\RTS_Plan\E-1.mxd	SMM

Figure E-1
Power Companies



POWER COMPANIES

- Consumer Power Inc
- Pacific Power and Light
- Portland General Electric
- Salem Electric

Legend

0 2 4 Miles

Roads

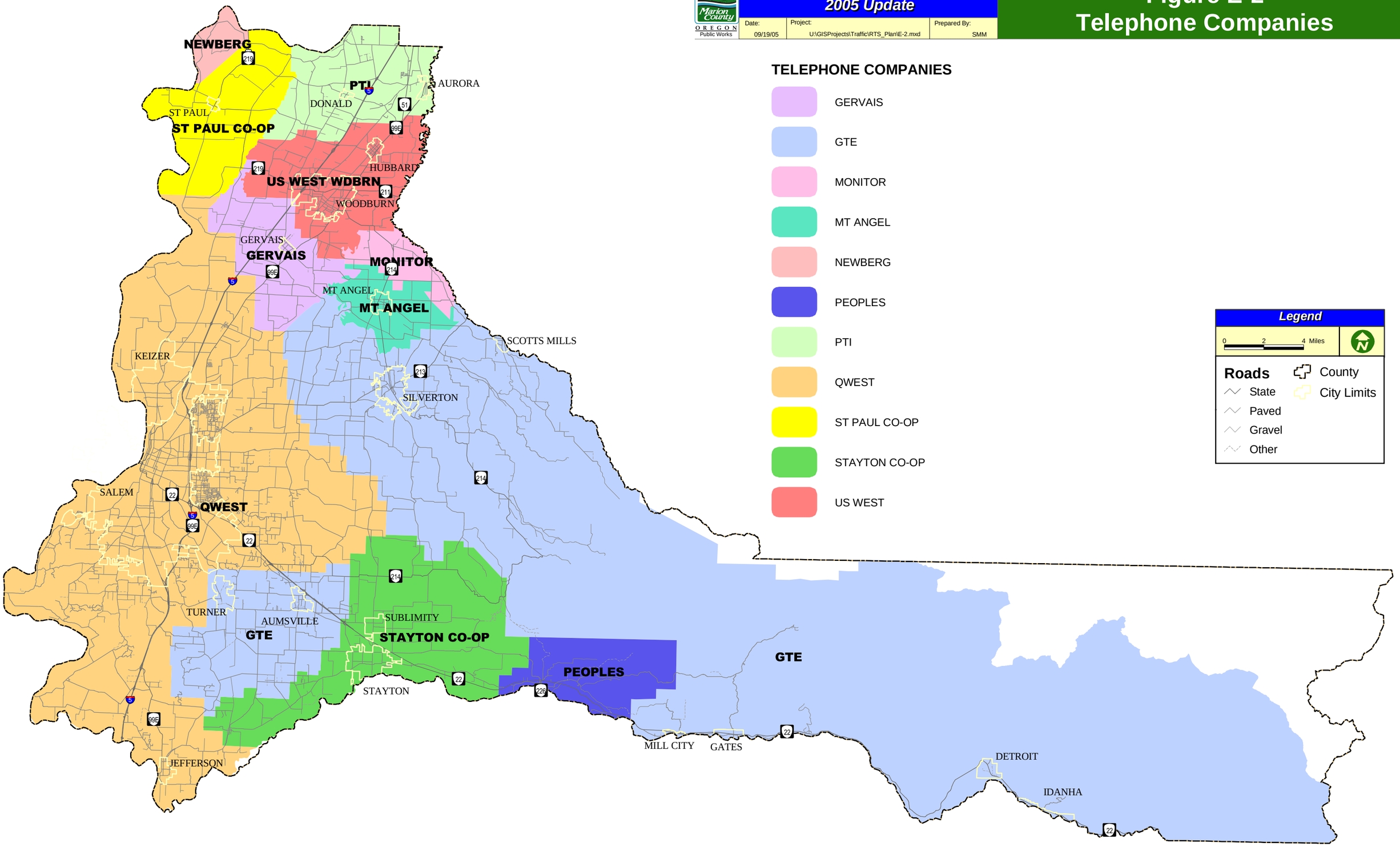
- State
- Paved
- Gravel
- Other
- County
- City Limits

Marion County
OREGON
Public Works

Rural Transportation System Plan
2005 Update

Date:	Project:	Prepared By:
09/19/05	U:\GISProjects\Traffic\RTS_Plan\E-2.mxd	SMM

Figure E-2
Telephone Companies



TELEPHONE COMPANIES

- GERVAIS
- GTE
- MONITOR
- MT ANGEL
- NEWBERG
- PEOPLES
- PTI
- QWEST
- ST PAUL CO-OP
- STAYTON CO-OP
- US WEST

Legend

0 2 4 Miles

Roads

- State
- Paved
- Gravel
- Other
- County
- City Limits

Appendix F

Access Management Plan
Wilsonville-Hubbard Highway (Highway 51), Marion County
Arndt Road Improvements (MP 0.00 - MP 2.23)

Introduction

The purpose of this plan is to establish how highway access is to be managed within the section of highway affected by this modernization project. The Oregon Transportation Commission (OTC) required access management plans for the modernization project funded through the Oregon Transportation Investment Act of 2001 (OTIA). Marion and Clackamas Counties jointly submitted a proposal to modernize Arndt Road, a county road, between Highway 51 in Marion County and Ore 99E (Pacific Highway East) in Clackamas County. The Mid-Willamette Valley Area Commission on Transportation, and the ODOT Region 2 All-Area Committee recommended the project to the OTC. The OTC selected the project, including a condition requiring the completion of an access management plan consistent with the Oregon Highway Plan. The complete condition is included in the OTC Project Identification and Summary Report (Attachment A).

The OTC Project Identification and Summary Report provides the following as the project purpose and need:

> *This proposal would make improvements along Arndt Road from ORE-99E in Clackamas County to and including the Wilsonville-Hubbard Highway (Highway 51) in Marion County. The entire project includes intersection improvements, bridge and roadway realignments, and added traffic controls. Beginning at ORE_99E near the Mollala River, a new signalized intersection would be constructed. From that intersection, Arndt Road would be extended westerly with two lanes under and existing concrete trestle of the UPRR mainline to the existing Arndt Road/Barlow Road intersection. The project would then continue on Arndt Road straightening the 90-degree "S" curves and improving the intersections at Knights Bridge Road and Barlow Road. The Arndt Road/Airport Road intersection will be widened and signalized. Southbound on Highway 51, dual left turn lanes will replace the single left turn lane at Arndt Road intersection. Arndt Road will be widened to include two eastbound travel lanes and a westbound right turn lane.*
>
> *This project is the first phase of this series of access improvements recommended in the I-5/Canby/ORE-213 Access Improvement Study. The Project would provide the connection from I-5 to ORE-99E and allow trucks to cross the UPRR mainline safely via an undercrossing of the existing trestle.*

Appendix F

The section of this plan entitled "Access Management Actions" contains the implementation portion of the plan for the short-, medium-, and long-term periods.

Existing Conditions

Highway 51 intersects with I-5 just south of the Boone (Willamette River) Bridge and extends in a southerly direction 5.63 miles where it intersects with Ore 99E north of the City of Hubbard. In the study area, Highway 51 is a rural highway generally surrounded by farm and farm-related uses. Between I-5 and Arndt Road (MP 0.00 - MP 1.47), there are no public or private accesses on the east side of the highway, and two accesses (service road to the Baldock Rest Area at MP 0.72 and a gated farm access at MP 1.21) to the west side. South of Arndt Road, there are three accesses in the study area to the west side of the highway: private accesses at MP 1.66 and 1.75 and Piper Street, a residential street at MP 2.23. Piper Street is the southern limit of the study area for this plan. The only access to the east side of the highway south of Arndt Road is a gated maintenance access to the Aurora State Airport at MP 1.66 (the airport is adjacent to the highway within the study area south of Arndt Road). With the exception of the two private accesses, all accesses to Highway 51 in the plan area are separated by a minimum of 1,000 feet.

Road Conditions

Highway 51 is a two-lane road with a functional classification of Rural Minor Arterial (Oregon Functional Classification; Clackamas County classification - north of Arndt Road - is Connector; Marion County classification - south of Arndt Road - is Arterial). Highway 51 is also designated as a National Highway system (NHS) route. Between I-5 and Arndt Road, Highway 51 has a slight vertical grade and several gentle curves. South of Arndt Road, the road section is flat and tangent. The posted speed limit is 55 mph. The shoulders are a minimum of 5 feet wide through the entire study area. The Highway 51 intersection with Arndt Road is signalized and left-turn refuges are provided in both directions. Left-turn refuges are also provided for the two private accesses south of Arndt Road. Piper Street has a stop sign. All approaches in the plan area have more than adequate sight distance.

Arndt Road is classified as an Arterial by Marion County between Arndt Road and Airport Road. East of Airport Road, Clackamas County designates Arndt Road as a Major Arterial.

The project is within a Category 3 Safety Investment Program section. The area around the Arndt Road intersection (MP 1.38 - MP 1.56) is identified in the 2002 Safety Priority Index System (SPIS) as a top ten percent crash location. The

1997-2001 ODOT Comprehensive Crash Listing includes 34 crashes in the study area, none involving fatalities. The majority of crashes involved excessive speed or turning movements.

ODOTs 2001 Traffic Volume Tables state that the average daily traffic on Highway 51 immediately south of Arndt Road (MP 1.48) was 9,300 vehicles. The same ODOT publication identified daily vehicular counts of approximately 17,900 vehicles on Hwy 51 just south of I-5, which would also indicate an average daily traffic of about 17,900 vehicles on Hwy 51 north of Arndt Road. The 1998 Marion County Transportation System Plan (TSP) estimated that Arndt Road carried 8,140 vehicles between Highway 51 and Airport Road in 1995. Assuming a 2% annual traffic growth rate, Arndt Road was carrying approximately 9,200 vehicles daily in 2001. The TSP indicated that the Highway 51/Arndt Road intersection was operating at level of service (LOS) 'C' in 1995, and is projected to operate at LOS 'F' (maximum volume/capacity ratio of 1.00) in 2015. The TSP identified improvements at this intersection as a 0-5 year priority to resolve congestion and safety problems. The TSP identified that the intersection of Arndt Road and Airport Road was operating at LOS 'D' in 1995, and is also projected to operate at LOS 'F' in 2015. The TSP identifies this improvement as a 5-10 year priority to resolve congestion issues.

1999 Oregon Highway Plan (OHP)

Public approach road spacing standards are based on the highway classification and posted speed. Highway 51 is a Regional Highway. The management objective described in OHP Policy 1A (OHP pp. 41) is to provide safe and efficient, high speed, continuous flow operation in rural areas. A secondary function is to serve land uses in the vicinity.

There is one posted speed through the study area - 55 mph. The approach road spacing standard for a Regional Highway in a rural area is 990 feet. The only approaches in the project area that do not meet this standard are the private accesses south of Arndt Road at MP 1.66 and MP 1.75 (about 475 feet apart). The most recently approved approach road (@ MP 1.75 in 1999) was approved with the recognition that it did not meet OHP spacing standards. The property was landlocked, however, as it did not have frontage on any other road. The access was placed, pursuant to an approved approach road permit, in a manner that would allow it to function in proximity to the other approach road (@ MP 1.66). The land uses adjacent to the highway in the study area are described in TABLE 1.

TABLE 1
Land Use - Highway 51 - Arndt Road Project

Tax Lot	Land Use	Zoning
Clackamas County Assessor's Map 3 1W 26		
West side of highway		
TL 3002	Golf course	EFU
East side of highway		
TL 3000	Golf course	EFU
Clackamas County Assessor's Map 3 1W 35		
West side of highway		
TL 101, 201	Golf course	EFU
TL 580, 601, 602, 1860, 1870, 1890, 2200	Vacant/farm	EFU
East side of highway		
TL 100, 200, 300, 301, 302, 400, 403	Golf course	EFU
TL 1900, 2001, 2100,2101, 2102	Farm/nursery	EFU
Marion County Assessor's Map 4 1W 02A		
West side of highway		
TL 900	Business	IR
TL 1100, 1200, 1300	Hay/grain business	EFU
TL 1400	Equine medical facility	EFU
TL 1500	Farm/vacant	EFU
East side of highway		
TL 800	Aurora State Airport	P
Marion County Assessor's Map 4 1W 02D		
West of highway		
TL 300	Farm/vacant	EFU
East of highway		
TL 200	Aurora State Airport	P
Marion County Assessor's Map 4 1W 02DC		
West side of highway		
TL 100	Single family residence	AR

Marion County Transportation System Plan

Marion County's TSP was adopted in 1998 and is currently being updated. The TSP identifies Highway 51 as an Arterial road. The plan does not establish an expectation that bicycle and pedestrian facilities will be provided on rural roads,

but does identify Highway 51 as a road with shoulders in excess of four feet. The TSP calls for intersection and signal improvements at the intersection of Highway 51 and Arndt Road. The TSP also identifies capacity issues at the Arndt Road intersection with Airport Road and calls for traffic control changes to address these capacity issues. The current project implements these identified needs.

Clackamas County Transportation System Plan

The Transportation Element of the Clackamas County Comprehensive Plan was most recently amended in March 2002. The plan contains Policy 6.0, which states:

> *Coordinate with the Oregon Department of Transportation (ODOT) in implementing the Oregon Transportation Plan (OTP), Oregon Highway Plan (OHP), Statewide Transportation Improvement Program (STIP), and with other state. local, and regional jurisdictions in their roadway planning efforts.*

The County has identified improvements in the Arndt Road corridor from Airport Road to Ore 99E in the 20-year Capital Needs list. This project will help to implement these provisions of the comprehensive plan.

Access Management Plan Actions

Definitions. Terms defined in Oregon Administrative Rule 734-051 shall have the same meaning when used in the following plan actions. In addition, the following terms used below shall mean:

Action, Long Term are related to the planning horizon for the Marion and Clackamas Counties comprehensive plans and TSPs. These may involve county plan policy amendments, road construction, transit solutions, or permit conditions on approach road permits.

Action, Medium Term are those taken between completion of the OTIA-funded project and the planning horizon identified in the Marion and Clackamas Counties comprehensive plans and TSPs. These actions may involve, for example, plan policy amendments, road construction, transit solutions, or permit conditions on approach road permits.

Action, Short Term are those taken before or during construction of the OTIA-funded project.

Approach Road means a public or private connection to Highway 51 providing vehicular access to and/or from the highway and an adjoining property.

Approach Road, Private is an approach road to Highway 51 serving one or more properties.

Approach Road, Public is an approach road to Highway 51 serving multiple properties owned and operated by a public entity and providing connectivity to the local road system.

Attached Maps are the final project construction maps and the right-of-way maps used to construct the project. These maps are a part of this Access Management Plan.

Access Management Direction

Construct this OTIA-funded project while retaining and improving the operations of the Highway 51/Arndt Road intersection and Highway 51 within the study area.

Short-term Actions

None proposed.

Medium-term Actions

1. If redevelopment of the parcels containing the hay/grain facility (Assessor's Map 4 1W 02A - Tax Lots 1100, 1200, 1300) and the equine medical facility (Assessor's Map 4 1W 02A - Tax Lot 1400) occur, work to consolidate property access to meet approach road spacing standards (990 feet) specified in the OHP and OAR 734-051.

Long-term Actions

None proposed.

Appendix F

Attachment A

Arndt Road Project Identification and Summary Report

Project Name: Arndt Road Improvements, Marion and Clackamas County Partnership [Wilsonville-Hubbard Highway (Hwy 51) to ORE 99E] (key #12916, 13033)
Conditions of Approval:

1. ODOT shall develop separate access management plans for the sections of highway affected by the project consistent with the Oregon Highway Plan. Clackamas County shall adopt the access management plan for ORE-99E and Marion County shall adopt the access management plan for the Wilsonville-Hubbard Highway (Highway 51) as parts of a legally binding, enforceable intergovernmental agreements between the respective county and ODOT. The intergovernmental agreement shall include the following elements:
   - If the agreement is to be terminated that Marion County, or Clackamas County provides notice to ODOT in advance of a public hearing on the matter and that the public hearing be held prior to the expiration of their respective agreement with ODOT.
   - Changes or termination of the agreement in advance of expiration shall require formal affirmative action by the Oregon Transportation Commission and Marion County, or Clackamas County, for their respective agreement.
   - The agreement with Clackamas County can expire if Clackamas County includes the Access Management plan in its Transportation System Plan.
   - The agreement with Marion County can expire if Marion County includes the Access Management plan in its Transportation System Plan.
   - The access management plan will apply appropriate access spacing standards as found in the 1999 Oregon Highway Plan or in the local Transportation System Plan (whichever is more restrictive).
2. Final land use goal exceptions and approvals for this project shall have been issued before August 2004, or the project will not be eligible for OTIA II funding.

Project Name: ORE 99E, N. Lake Creek Drive to Tangent Drive (Tangent) (key #13095)
Conditions of Approval:

ODOT shall develop an access management plan for the project consistent with the Oregon Highway Plan. The City of Tangent shall adopt the access management plan as part of a legally binding, enforceable intergovernmental agreement between the City of Tangent and ODOT. The intergovernmental agreement shall include the following elements:

- If the agreement is to be terminated that the City of Tangent provides notice to ODOT in advance of a public hearing on the matter and that the public hearing be held prior to the expiration of the agreement.
- Changes or termination of the agreement in advance of expiration shall require formal affirmative action by the Oregon Transportation Commission and the City of Tangent.
- The agreement can expire if the City of Tangent includes the Access Management plan in its Transportation System Plan.
- The access management plan will apply appropriate access spacing standards as found in the 1999 Oregon Highway Plan or in the local Transportation System Plan (whichever is more restrictive).

Project Name: US 101 at NE 52nd Street (Newport) (key #12918)
Conditions of Approval:

ODOT shall develop an access management plan for the project consistent with the Oregon Highway Plan. The City of Newport shall adopt the access management plan as part of a legally binding, enforceable intergovernmental agreement between the City of Newport and ODOT. The intergovernmental agreement shall include the following elements:

- If the agreement is to be terminated that the City of Newport provides notice to ODOT in advance of a public hearing on the matter and that the public hearing be held prior to the expiration of the agreement.
- Changes or termination of the agreement in advance of expiration shall require formal affirmative action by the Oregon Transportation Commission and the City of Newport.
- The agreement can expire if the City of Newport includes the Access Management plan in its Transportation System Plan.
- The access management plan will apply appropriate access spacing standards as found in the 1999

APPENDIX G: ALTERNATIVES ANALYSIS

Appendix A lists all the locations where needs have been considered and where potential projects have been suggested for consideration in this plan. As Chapter 8 describes, 'For each of these issues, County staff has reviewed the location and pertinent data (accident histories, traffic volumes, level of service, geometry, traffic flow characteristics, etc.) and developed the conceptual project that, in staff's judgment, best addresses the issues at that location. For each of these potential projects, a planning level cost estimate has been developed and the project evaluated to determine how it would affect traffic safety and flow in the area.'

For each of the 0 to 5 year recommended project locations, this appendix describes the thought processes involved in arriving at the conceptual project that would best address the needs at that location. Each project is listed, followed by the factors involved in the decision on the conceptual project at that location.

Arndt Road at Airport Road and Wilsonville-Hubbard Highway (OR 551)
Major capacity problems were identified at two locations: for traffic headed from the Canby area to the Portland area in the morning a) getting through the all-way-stop at Arndt Road and Airport Road, and b) turning right to head north on Wilsonville-Hubbard Hwy (Oregon 551). The capacity problems repeat, often more severely, for vehicles returning from the Portland area to the Canby area in the afternoon. There are no suitable alternate routes available, and promotion of alternative modes (transit, etc) would not alleviate the congestion problem. Several potential measures (typically adding turn lanes and signals at the intersections and/or travel lanes in between) were given preliminary consideration. The conceptual project that provides the most benefit for the dollars spent, as well as the minimum impact of the adequate solutions, is the project under construction at this location: signalizing the Arndt/Airport intersection with left turn lanes in all directions; adding a second southbound to eastbound left turn lane from 551 onto Arndt, and extending that lane through Airport Road due to the short distance between intersections and traffic entering and exiting driveways for Columbia Helicopter.

Cordon Road at Pennsylvania Avenue
The need at this location was identified through field observation and by reviewing the accident history. This showed several northbound vehicles getting rear-ended and some northbound vehicles getting in accidents by trying to turn left through too small a gap in southbound traffic. Field observation corroborates this analysis. It is appropriate to maintain the availability of this left turn, because Pennsylvania Avenue is classified as a Collector. The intersection does not meet signal warrants, so a signal is not appropriate. Analysis indicated that providing a northbound left turn lane would be appropriate for this intersection, would address the identified needs, and would yield the most safety benefit per dollar spent at this location.

Cordon Road at Auburn Road
The need at this location was identified through field observation and by reviewing the accident history. During the busy times of day, it is very difficult for Auburn Road traffic to find enough of a gap in the stream of vehicles on Cordon Road to cross Cordon Road or turn left from Auburn Road onto Cordon Road. Auburn Road is classified as a Collector, so it is appropriate to maintain its mobility across Cordon Road. The intersection meets signal warrants, and a traffic signal would function appropriately at this intersection. The accident history shows that it would be beneficial to provide signal protection for Auburn Road vehicles crossing Cordon Road or turning left onto Cordon Road, and preliminary space-time calculations indicate that a signal could be installed while maintaining reasonable progression of

vehicles along Cordon Road. Analysis indicated that providing a traffic signal would be appropriate for this intersection and would address the identified needs in the most cost-effective way.

Cordon Road at Herrin Road

The need at this location was identified through field observation and by reviewing the accident history. This showed several northbound vehicles getting rear-ended and some northbound vehicles getting in accidents by trying to turn left through too small a gap in southbound traffic. Field observation corroborates this analysis. It is appropriate to maintain the availability of this left turn, because Herrin Road is classified as a Collector. The intersection does not meet signal warrants, so a signal is not appropriate. Analysis indicated that providing a northbound left turn lane would be appropriate for this intersection, would address the identified needs, and would yield the most safety benefit per dollar spent at this location. A potential project at this location would be somewhat complicated by the low creek crossing west of Cordon Road, and the grade necessary to get from this bridge up to Cordon Road. Also complicating the intersection is the slight rise of Cordon Road just north of the intersection. While the intersection meets sight distance standards, vertical realignment to smooth this rise would yield increased visibility and safety benefit.

Ehlen Road at Oregon 551 and Boones Ferry Road

The need at this location was identified through field observation and by reviewing the accident history. The intersection of Ehlen Road with Oregon 551 is signalized, and the Ehlen Road approaches to this signal are one lane in each direction. When a driver on Ehlen Road wants to turn left onto Oregon 551, they must wait for opposing traffic to clear before making this left turn. Because each approach is only one lane in each direction, through east-west traffic has difficulty getting by when a driver is waiting to turn left. Because this intersection has gotten quite busy, east-west traffic is often blocked by left-turners for much of its green time, which results in very long queues of traffic waiting to get through this intersection. In addition, the Ehlen Road intersection with Boones Ferry Road is also quite close to Oregon 551, so traffic waiting to get through the OR 551 intersection frequently blocks the Boones Ferry intersection. Left-turners at Boones Ferry also block Ehlen Road. One possible solution would be to fully reconfigure the road system of this area, but that would be quite costly and very disruptive. A left turn lane on Ehlen Road at 551 would alleviate the main issue by allowing left-turners a space to wait without blocking the through travel lanes. A left turn lane on Ehlen Road at Boones Ferry Road would alleviate another issue by also providing these left-turners a space to wait without blocking the travel lane. Because of the proximity of these two intersections, a single left turn lane extending through both intersections would provide adequate queuing space for both, and the best geometrics for through traffic on Ehlen Road. Signal modifications to include a left-turn phase for Ehlen Road traffic would also be considered.

Cordon Road at MacLeay Road

The north, south, and west legs of this intersection are in the City of Salem, with the Urban Growth Boundary running down the east right of way line, and the east leg in rural Marion County. This intersection is currently a four-way-stop. Traffic volumes on Cordon Road have grown to the point where there are significant delays on Cordon Road at this intersection. The solution here is a traffic signal, with a potential long-term realignment of the MacLeay Road approaches to square up this intersection. As the primary traffic problems at this intersection are in the City of Salem, it makes sense for the City of Salem to construct this project. It is listed here because it will have some effect on the east leg of MacLeay Road, which is in rural Marion County. The improvements to this leg of MacLeay Road will likely only consist of the addition of a left turn lane at the intersection.

Marion Road from Turner UGB to Mill Creek Road
As approved in a recent land use case, a private company will be opening a gravel mining operation southeast of Turner, and southeast of this section of road. That development will generate a significant amount of truck traffic on this road. This project, as required in that land use case, would strengthen the pavement and add paved shoulders (bikeways) on this section of road in an effort to mitigate the impact of this added truck traffic.

Jefferson-Marion Road over Union Pacific Railroad
This project would replace an existing bridge that carries Jefferson-Marion Road over the Union Pacific Railroad. Jefferson-Marion Road is classified as an Arterial, and is a key transportation corridor in this part of the County. The bridge is old, narrow, has sharp curves on the approaches, and has a low sufficiency rating. A grade crossing would not be feasible due to the volume of rail traffic on this line, the Union Pacific West Coast Mainline, and a grade crossing would likely encounter fierce opposition from Union Pacific and from the ODOT Rail Division. Funding has been approved through the Oregon Transportation Investment Act III to replace the bridge and its approaches. As the sharp curves on the approaches are a safety issue, project design has included an analysis of alternatives that would somewhat straighten the curves to allow a design speed closer to the typical travel speed on this corridor.

Mt. Angel – Gervais Road over Pudding River
Mt. Angel – Gervais Road had been a commonly used freight route, particularly for trucks carrying agricultural products into and out of the region. The condition of the bridge has deteriorated over the years, to the point where the bridge is now load limited to 20, 38, or 39 tons (depending on truck configuration). The bridge is also quite narrow, and provides no space off of the travel lanes for pedestrians to cross. Funding has been approved through the Oregon Transportation Investment Act III to replace the bridge. As the alignment of the roadway is good, the logical project is to replace the bridge at the current alignment of the roadway. An adjacent bridge across an overflow channel is also old with a poor sufficiency rating, so that bridge will be included in the project as well.

South Abiqua Road over Abiqua Creek
This project was also identified through regular bridge inspections. The bridge is old, narrow, and has a low sufficiency rating. Funding has been secured through the Hazardous Bridge Rehabilitation and Replacement program to replace the bridge. As the alignment of the roadway is good, the logical project is to replace the bridge at the current alignment of the roadway.

Marion Road over Mill Creek (south of Mill Creek Road)
This bridge is also old, narrow, and has a relatively low sufficiency rating, although its rating is not quite low enough to get grant funding for replacement. However, as approved in a recent land use case, a private company will be opening a gravel mining operation southeast of Turner, and southeast of this section of road. That development will generate a significant amount of truck traffic across this bridge, which would cause it to deteriorate quickly if no action is taken. This project, as required in that land use case, would reconstruct and widen this bridge in an effort to mitigate the impact of this added truck traffic.

Silverton Road at Howell Prairie Road
Traffic volumes on Silverton Road have grown to the point where drivers experience unacceptable delay at this all-way-stop intersection during the peak hours. This intersection is the center of the tiny community of Central Howell, and is surrounded by a school, gas station, and farmers market. Traffic volumes on Silverton Road (about 10,000 ADT) are much higher than on Howell Prairie Road (2,000

ADT). One potential solution would be to install a traffic signal at the intersection, which would also necessitate turn lanes on the Silverton Road approaches. Another possibility would be converting the intersection to a two-way-stop by removing the stop signs on Silverton Road and adding left turn lanes for east-west traffic. The traffic signal was chosen for inclusion in the RTSP because it would provide for better movement for pedestrians and local traffic related to the school and businesses in close proximity to this intersection. Additional alternatives analysis will be conducted as part of the design process before a particular alternative is chosen for detailed design.

Cordon Road at Hayesville Drive

The need at this location was identified through field observation and by reviewing the accident history. This showed several northbound vehicles getting rear-ended and some northbound vehicles getting in accidents by trying to turn left through too small a gap in southbound traffic. Field observation corroborates this analysis. It is appropriate to maintain the availability of this left turn, because Hayesville Drive is classified as a Collector. The intersection does not meet signal warrants, so a signal is not appropriate. Analysis indicated that providing a northbound left turn lane would be appropriate for this intersection, would address the identified needs, and would yield the most safety benefit per dollar spent at this location.

Brooklake Road at Wheatland Road

The need at this location was identified through field observation and by reviewing the accident history. A pattern has been observed of westbound vehicles not stopping (due to driver error) for the intersection, and going down the slope west of the intersection. This slope complicates potential solutions, as there is not much space to work with for any sort of barrier or realignment. The project included in the RTSP is for warning devices (possibly innovative solutions) that would sense a westbound vehicle and alert it to the presence of the intersection.

Bridges With Low Sufficiency Ratings

As bridges are regularly inspected, bridges are occasionally identified as suitable for rehabilitation or replacement, particularly bridges with low sufficiency ratings. Marion County has been successful in the past in obtaining grant funding to replace old and worn out bridges. When this funding is obtained, the County is typically required to contribute a ‘match’ of a certain percentage of local funds to pay for this project. This money is set aside to provide matching funds for bridge replacement projects identified and constructed with grant funding.