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Acknowledgments

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In addition to the funding from the TGM program, significant time and effort was contributed by the Union County Planning Department and the Union County Transportation System Plan Technical Advisory Committee. The effort by the Technical Advisory Committee, and particularly Hanley Jenkins II and Scott Hartell from Union County, will ensure that transportation facilities and local community character will be better off in the future as a result of this plan. The TSP Advisory Committee consists of:

- Jo Baltz, North Powder City Council
- Jim Bovard, Union City Council
- Scott Hartell, Union County Associate Planner
- Arlie Gordon, Union Planning Commission
- Hanley Jenkins II, Union County Planning Director
- Bill Oliver, Cove City Council
- Cheryl Jarvis-Smith, ODOT Region 5

Special recognition should also be given to the Union Planning Commission and City Council with particular appreciation of personal efforts by Leonard Almquist, City Administrator.

The Otak, Inc. consultant team for this project consisted of Todd Chase, AICP, Project Manager; Scott Keillor, AICP, Senior Planner; and Yvonne Falconi for technical assistance. Key subconsultants included Stephanie Lawson, Pacific Rim Resources; Dara Decker, University of Oregon Resource Assistance for Rural Environments; and Paul Ryus, Kittelson & Associates, Inc.

Executive Summary

Union is a small, rural city with 1,955 residents. The City is located in the Grande Ronde Valley, about 15 miles south of La Grande at the junction of Oregon Highways 203 and 237. Union is a rural community with many of its residents working in La Grande/Island City and is a retirement area as well. The City recognizes the importance of automobile and truck access and supports the development of alternative energy efficient and economical forms of transportation for its residents. Provision of efficient local street networks and pedestrian and bicycle facilities is important to encourage residents to walk or bike to schools, churches, stores, the post office, and other destinations.

Key elements of the Union Transportation System Plan include:

- A local street network plan to identify general preference for future road/utility extensions;
- An access management plan to protect and preserve the function, capacity, level of service, and safety of State Highways 203 and 237 through the urban area;
- Local street design guidelines;
- Identification of future street and bicycle and pedestrian connections;
- Recommended local ordinance amendments required to implement the plan; and
- A preliminary funding strategy.

The Transportation System Plan is intended to build upon locally adopted plans, policies and ordinances, including:

- Comprehensive Land Use Plan — adopted May 1983;
- Zoning Ordinance — adopted May 1983;
- City of Union Ordinance No. 1990-1 (Partition and Subdivision Ordinance and Declaring an Emergency) — adopted February 1990; and
- Bicycle-Pedestrian Plan, A Comprehensive Land Use Plan Supplement — adopted August 1995.

The Transportation System Plan updates and supplements the above planning documents and includes specific ordinance amendments required to satisfy the Oregon Transportation Planning Rule.

Purpose

The City of Union and Union County have developed this Transportation System Plan (TSP) to guide the management, design, and construction of all transportation facilities within the Union Urban Growth Area for the next 20 years. This plan updates the transportation element of the City of Union's Comprehensive Plan and satisfies the requirements of the Oregon Transportation Planning Rule (TPR). The Transportation Planning Rule is the state law for implementing Statewide Planning Goal 12: Transportation. This rule requires local jurisdictions to coordinate land use and transportation planning and to consider all modes of travel.

The City of Union is a small eastern Oregon community with about 2,000 residents and is located in the Grande Ronde Valley within Union County (see Figure 1). The urban area is located at the junction of two state highways: Highway 237 which passes through Cove, Union, and North Powder; and Highway 203 connecting Union with La Grande and Medical Springs. Union is characterized by rural residential development surrounding commercial land uses and public facilities that are primarily located along the two state highways.

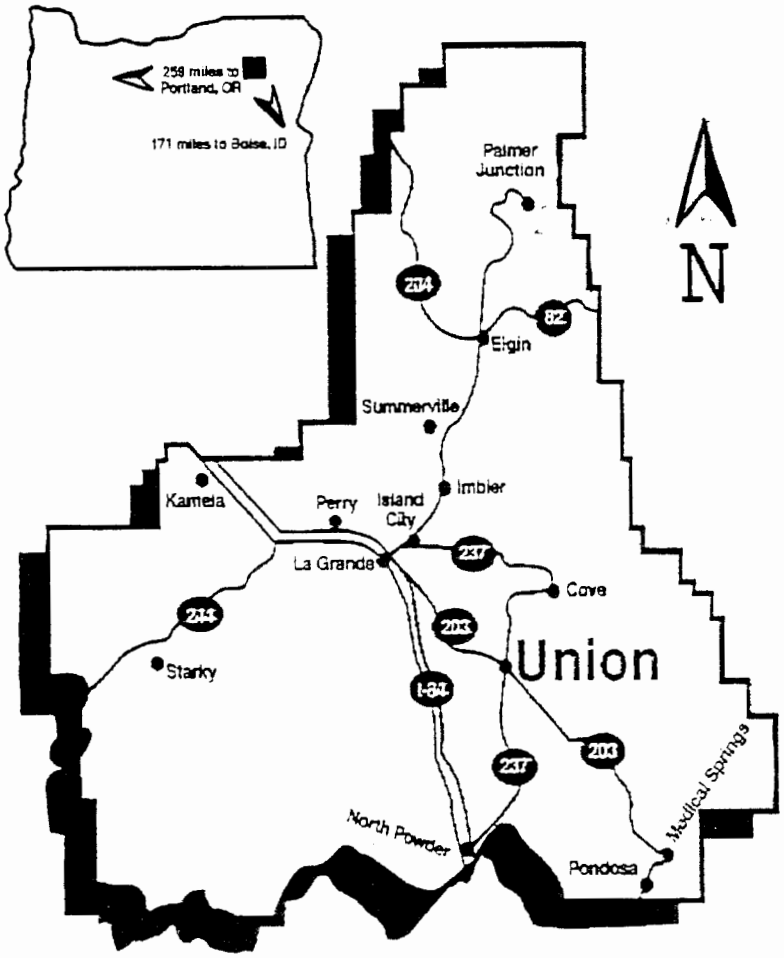


Figure 1. Location Map

Plan Goals and Objectives

The goal of the Union Transportation System Plan is to address local transportation deficiencies, extend public roadways and utilities, safely enhance all forms of travel, and satisfy the requirements of the Oregon Transportation Planning Rule. Another important goal of this TSP is to preserve the function, capacity, level of service, and safety along Highways 203 and 237.

Specific objectives of the Transportation System Plan include:

- Develop access management standards for Oregon Highways 237 and 203;
- Promote alternative modes of transportation including pedestrian, bicycle, and public transportation services;
- Ensure that ODOT, in conjunction with the City of Union and private property owners/developers, review major development proposals that abut state facilities to minimize impacts and to protect transportation facilities;
- Develop and adopt a local street network plan that is consistent with land use plans and growth trends and existing public facilities;
- Identify local truck routes in addition to Main Street;
- Provide adequate sidewalks and bicycle facilities with safe street crossings along arterial and collector streets in accordance with the Union Bicycle-Pedestrian Plan;
- Develop and identify land use code and ordinance language, street design standards, and local street network plans that address street connectivity, spacing, and access management standards to implement the Transportation System Plan; and
- Provide opportunities for local residents, property owners, and elected officials to provide input and respond to Transportation System Plan recommendations.

Local Public Involvement Process

Transportation system plans are intended to be local growth management and development planning tools that authorize future public facilities investments. In order to determine the most important local issues and transportation system planning priorities, this Transportation System Plan was developed through an open local planning process that included:

- Technical Advisory Committee meetings in December 1996 and March 1997;
- A public open house workshop in March 1997;
- City Planning Commission debriefing in April 1997;
- City Planning Commission/public workshop meeting in May 1997;
- City Council/public meeting to discuss draft transportation system plan in June 1997; and
- City Council and Planning Commission/public hearings to adopt the final Transportation System Plan (summer 1997).

Meeting minutes from the various public and Technical Advisory Committee meetings are included in Appendix A — Public Involvement Record. In addition to these meetings, two informational fact sheets were prepared; one identifying TSP goals and objectives at the beginning of the planning process, and one summarizing draft Transportation System Plan recommendations near the end of the process.

Vision

This TSP embodies the community's vision for a coordinated land use and transportation pattern to guide future growth and development. This vision was derived from the above-mentioned public involvement process. The residents of Union view this TSP as a valuable planning tool for enhancing community livability and improving safety and mobility.

Relevant Planning Documents

As part of the work program, the project team completed a review of relevant planning documents consistent with TPR 660-12-030(1)(a) and 660-12-030(2). The following plans and studies affect local transportation and land use planning, and provide technical background for the Union Transportation System Plan. Please refer to Section 8 — Plan Implementation for specific land use plan and ordinance changes recommended to implement the TSP.

State Policies and Plans

- Oregon Transportation Planning Rule (OAR 660, Division 12), amended May and September 1995
- Oregon Transportation Plan, 1992
- Oregon Bicycle Plan, 1992
- Oregon Highway Plan, 1991
- Oregon Rail Passenger Policy and Plan, 1992
- Oregon Freight Plan, 1994
- Oregon Transportation Action Plan, 1995
- Oregon Highway 82 Corridor Plan, June, 1997 Draft
- Oregon Office of Economic Analysis, Long-term Population and Employment Projections, January, 1997

Local and Regional Policies and Plans

- Union County Land Use Plan and Zoning Ordinance Maps, 1985
- Union County Bicycle-Pedestrian Plan, 1995
- Union County Airport Master Plan, 1989
- City of Union Land Use Plan, 1984
- City of Union Zoning Ordinance, 1979
- City of Union Subdivision Ordinance, 1990
- City of Union Bicycle-Pedestrian Plan, 1995
- City of Union Capital Improvement Plan
- City of Union Wastewater Facilities Plan, 1992

Plan Organization

This Transportation System Plan is organized into seven sections. Following this introduction, the sections are:

III. ***Existing Transportation Facilities*** — Includes a map and summary of the existing local roadway network, state and local streets, traffic and safety conditions, bicycle and pedestrian networks, public transportation, rail, air, and pipeline services.

IV. ***Current and Projected Conditions*** — Includes an overview of key demographic trends and traffic projections as well as known land use, safety, and emergency response issues that were considered in the development of transportation system improvement alternatives.

V. ***Transportation Improvement Alternatives*** — Identifies several potential transportation improvements that were identified during the course of the transportation planning process. Also includes results of public input from the review of preliminary transportation alternatives.

VI. ***Recommendations*** — Includes a specific roadway network plan, access management guidelines, street standards, and plans for bicycle, pedestrian, air, public transportation, and pipeline facilities.

VII. ***Funding Plan*** — Identifies project costs and priorities, describes local funding options, and recommends funding sources to pay for specific improvements.

VIII. ***Plan Implementation*** — Recommends specific ordinance amendments to comply with the Oregon Transportation Planning Rule and describes steps required to adopt and implement the Transportation System Plan.

The Transportation System Plan builds upon the existing inventory of local street, pedestrian and bicycle, public transportation, rail, air, and pipeline facilities in Union. Union is currently served by many of these transportation networks despite its rural location and small size.

Existing Roadway Network

Roads are an essential part of any local transportation system, particularly in rural areas. The existing street grid in Union is bisected by Catherine Creek, which flows from the east as illustrated by Figure 2 — Roadway Network Existing Conditions. City blocks are 200 feet square with dispersed residential development patterns and commercial uses concentrated along Main Street. City streets are generally within a 60-foot right-of-way width.

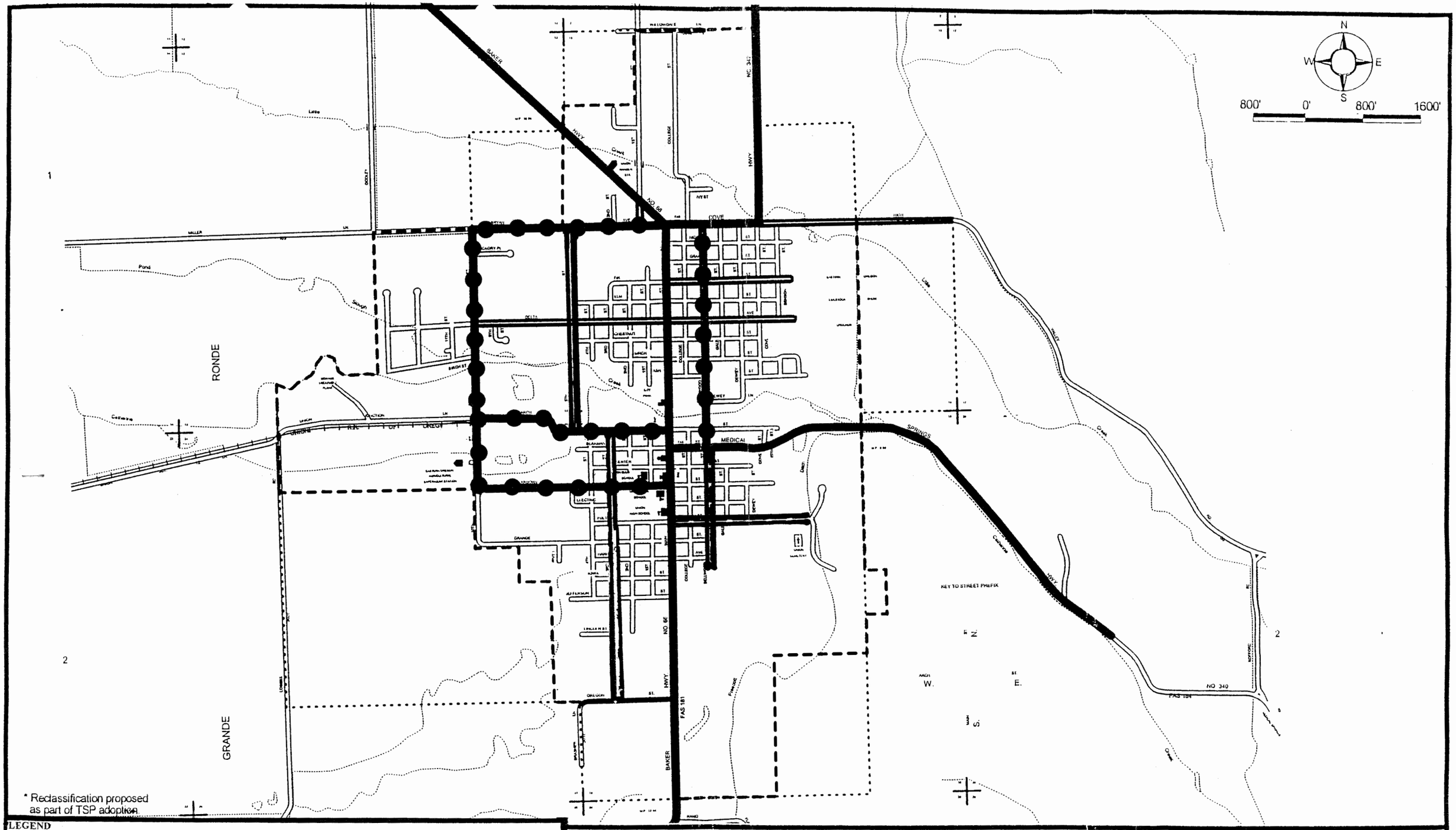
Within the Union urban area, roadways are generally classified as arterials, major collectors, minor collectors, or local streets.

Arterial Streets primarily function to provide traffic movements between areas and across cities with direct service to major traffic generators such as lumber mills or schools. In Union, the state highways are classified as arterials. Arterial/major collector streets in Union include:

- Oregon Highway 237 (Main Street) which connects north to Cove and south to North Powder and Baker City;
- Oregon Highway 203 (Main Street/Beakman Street) links Union together with La Grande to the north;
- Arch Street between 10th Street and Main Street;
- Bellwood Street between Beakman Street and Bryan Avenue;
- Bryan Avenue between 10th Street and Main Street;
- 10th Street between Dearborn Street and Bryan Avenue; and
- Dearborn Street between 10th Street and Main Street

Minor Collector Streets collect and distribute traffic to/from arterials and major collector streets, and activity centers such as Union Elementary School and Union High School. Existing minor collector streets in Union include:

- Fir Street between Main Street and the Eastern Oregon Livestock Show grounds.
- Delta Avenue between 10th Street and the Eastern Oregon Livestock Show grounds.
- Bryan Avenue from Main Street to the east end of the urban growth area.
- South Bellwood between Beakman Street (Highway 203) and Harrison Street
- South 3rd Street between Arch and Oregon streets
- 5th Street between Arch and Bryan streets
- East Fulton between Main Street (Highway 237) and the cemetery



City of Union

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Union, Oregon 97883

FIGURE 2
ROADWAY NETWORK
EXISTING CONDITIONS

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Just outside (northwest) of the Union UGB, the following minor local street is anticipated to be upgraded to the county arterial classification upon adoption of this Transportation System Plan:

- Godley Lane between 10th and Highway 237

Minor Local Streets provide direct access to adjacent residential and agricultural lands. They are not intended to carry through traffic. Marginal access lanes, cul-de-sacs, and alleys are also included in this category.

An approximate estimate of the length of the existing roadway network within the Union Urban Growth Area is shown below in Table 1.

Table 1
Existing Roadway Network*
Union Urban Growth Boundary

Street Classification	*Linear Miles*
Arterial Streets	5.00
Minor Collector Streets	3.32
Local Streets	12.9
Total	*21.22*

*Includes new minor collector street classification upgrades identified in Figure 2.

State Highways

Two state highways provide access to Union: Highway 237 and Highway 203. Highway 237 is also known as La Grande-Baker Highway No. 66 and connects La Grande and North Powder. This route is classified as a state highway with District Level of Importance. Highway 203 is a continuation of the La Grande-Baker Highway northwest of Union and is also classified with a District Level of Importance. Both streets are classified as arterials within Union's Urban Growth Area. As District highways, these routes primarily serve as local arterials/main streets and intercommunity connectors to primary state facilities (i.e., I-84). Please refer to the access management plan (in Section 8) for a description of level of importance road classifications.

Highways 237 and 203 follow the same route along Main Street through the Union Central Business District. Main Street has a 60-foot right-of-way width with two travel lanes, on-street parking, and sidewalks on both sides from Bryan Avenue to Harrison Avenue; sidewalks are present on the west side only, between Harrison Avenue and Oregon Street.

County Roads

Union County maintains jurisdiction over several roads that provide access to/from the Urban Growth Area including minor collectors such as:

- Foothills/Hot Lake/Union Road (No. 12);
- Union/High Valley/Cove Road (No. 66/66A);
- Godley Lane (No. 31);
- Weaver Lane/Union Road (No. 67);
- Ramo Flat Road (No. 69); and
- Miller Lane (No. 109).

Local Streets

Local streets form the majority of the roadway network in Union. The local street grid consists of 200-foot by 200-foot blocks. This street grid is considered to be an efficient and effective network for distributing local traffic to/from highways 237/203 (Main Street) and other arterial/major collector streets. A summary of local streets and their existing condition regarding number of travel lanes, parking, sidewalks, bike lanes, curbs/gutters, pavement surface and condition, street classification, length, and jurisdictional responsibility is included in Appendix B.

Unpaved Gravel Roads

About half of the local streets within the City of Union are gravel roads. A map of local streets and their surface type is provided in Appendix B. While there are some cost and drainage benefits of gravel streets, the City prefers local streets to be paved with chip seal or asphalt over time as existing streets are extended into undeveloped areas or reconstructed.

Pedestrian Network

The fairly compact size of Union's central commercial district and its flat terrain tend to support walking. While walking is more often associated with exercise than transportation, it is an important means of travel and can be performed by people of all ages and income levels. According to the 1990 Census of Population and Housing, approximately 7.7 percent of Union's labor force (106 residents) walk to work or work at home. Typical walking distances are usually no more than one-half mile.

The adopted Union Bicycle-Pedestrian Plan (1996) provides detailed analysis and recommendations to support an adequate bicycle and pedestrian network within the City as it develops over time. The Bicycle-Pedestrian Plan Map is included in Appendix F. There are generally two types of pedestrian walkways that are appropriate: one for rural areas and one for urban areas. The rural area standard is appropriate for areas outside the city limits and may at times apply to low use streets in Union neighborhoods with low population densities. The existing pedestrian network in Union includes shared roadways along local streets and sidewalks along the following:

- Main Street from Bryan Avenue to Harrison Avenue (both sides), and on the west side of Main Street from Harrison Avenue to Oregon Street;

- Elm Street along the south side from North 1st Street to Main Street;
- Delta Avenue along the north side from North 1st Street to Bellwood Street and along the south side of Delta Avenue from Main Street to College Street;
- Chestnut street along both sides from Main Street to Bellwood Street;
- Union Junction Lane/Arch Street along both sides from College Street to 2nd Street, then along the north side only to the mid-block of 2nd Street;
- Beakman Street along both sides from 2nd Street to College Street;
- Center Street along both sides from 1st Street to College Street; and
- East Dearborn along the south side from Main Street to Dewey Street.

A map of existing pedestrian facilities in Union is provided in Figure 3.

Rural area pedestrian walkways generally include six-foot wide roadway shoulders as interim pedestrian facilities along local streets. In some instances, rural county roads or state highways with abutting residential and commercial development may need sidewalks. In most rural cases, sidewalks or streets (without curbs and gutters) with six-foot wide shoulders will provide adequate pedestrian facilities and still preserve the rural residential character of the street.

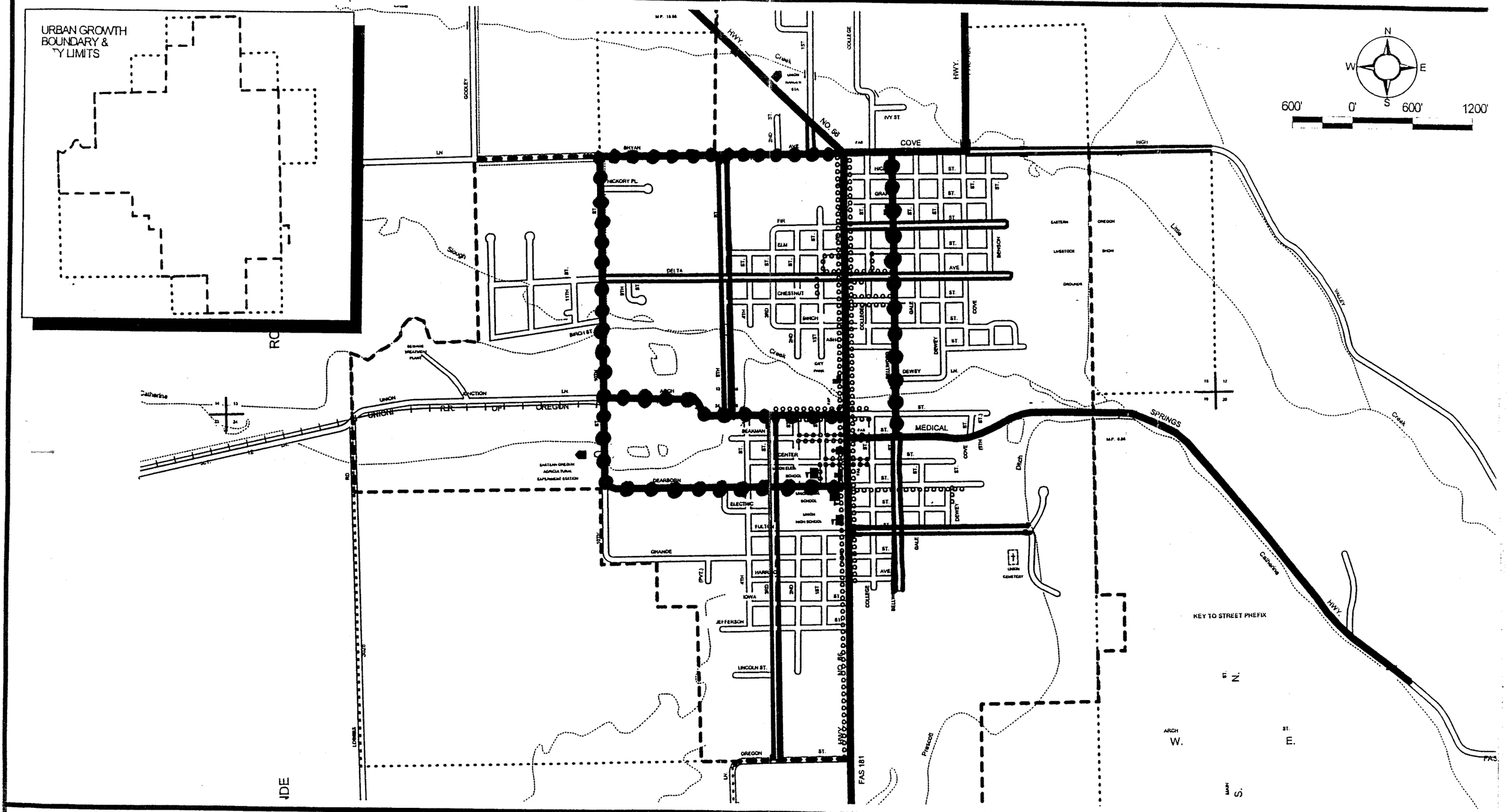
In urban areas, particularly along arterials and major collector streets, sidewalks should be provided on both sides of the street when possible. A paved six-foot shoulder for shared pedestrian and bicycle use may be used as an interim pedestrian facility. However, as development proceeds, five-foot wide sidewalks should be provided with physical landscaped separations from vehicle traffic and designed to meet Americans with Disabilities Act design standards.

On minor collector and local streets that have very low traffic volumes and speeds, it may be appropriate for pedestrians to share the road with vehicles. When pedestrians must share the road with motor vehicles, a safer pedestrian environment can be achieved by reducing traffic speeds to 25 mph or less and/or using traffic calming techniques such as "bulb-outs" or "chokers" at intersections. Bulb-outs or chokers tend to slow traffic through visual and physical narrowing of travel lanes.

The existing pedestrian network provides sidewalks along portions of the arterial/major collector streets in the City. However, many sidewalks were found to be discontinuous and in poor condition, as noted in Appendix B.

Bicycle Facilities

The Union Bicycle-Pedestrian Plan identifies design standards for bicycle facilities in rural and urban areas. In rural areas, along most state and county roads, standard shoulder widths are adequate for bicycle travel. The standard shoulder widths must take into account traffic volumes, traffic speeds, and other traffic operation considerations. In urban areas, bicycle lanes or shared roadways are the primary types of bicycle facilities.



LEGEND

- URBAN GROWTH BOUNDARY
- SIDEWALKS
- CITY LIMITS (OUTSIDE UGB)

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FIGURE 3
PEDESTRIAN NETWORK
EXISTING CONDITIONS

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Bicycle lanes are appropriate on arterial streets and major collector streets, and minor collectors if traffic speed is above 25 mph or average daily traffic is over 3,000 vehicles. Bicycle lanes on minor collectors may also be appropriate to connect existing bike lanes to major destination points such as schools, parks, or multi-family housing areas.

Shared roadways or lanes are appropriate along arterial and major collector streets only when it is not possible to provide bike lanes due to physical constraints such as existing buildings or environmentally sensitive areas. In this case, a minimum 14-foot wide lane will allow both motor vehicles and bicycles to travel together. Shared roadways for bicycle facilities are also appropriate on minor collectors and local streets with relatively low average daily traffic and adequate six-foot minimum shoulder widths. On these facilities, a 12-foot travel lane with six-foot gravel shoulders is adequate.

The existing bicycle network in Union is illustrated in Figure 4.

Public Transportation

Public transportation consists of senior citizen and handicapped transport, inter-city bus lines, and other forms of public and private transportation services or programs, including park-and-rides or van pools.

There is limited existing public transportation service provided to Union residents by Community Connections of Northeast Oregon. Community Connections of La Grande owns seven buses; one of which is based in Union. Buses operate as a dial-a-ride system, with 24-hour notice requested. In spite of the preferred lead time, buses can at times respond within 10 minutes. The daily occupancy of the system is estimated at 60 percent capacity. A maximum of 80 percent of the bus capacity is available due to a limited number of volunteer drivers.

There are approximately four request calls per day that cannot be accommodated. In these cases riders are scheduled for a future time period.

The Union County Transportation Coalition was formed to address transportation needs in Union County. This coalition includes the following organizations:

- Community Connections of Northeast Oregon;
- Center for Human Development;
- New Day Enterprises; and
- Oregon Department of Transportation.

In addition to the services offered by the Union County Transportation Coalition, inter-city services are provided by Greyhound and Moffit Brothers at nearby locations. Greyhound provides three daily stops in La Grande with service to communities along Interstate 84. Charter bus service is also provided by Moffit Brothers upon request.

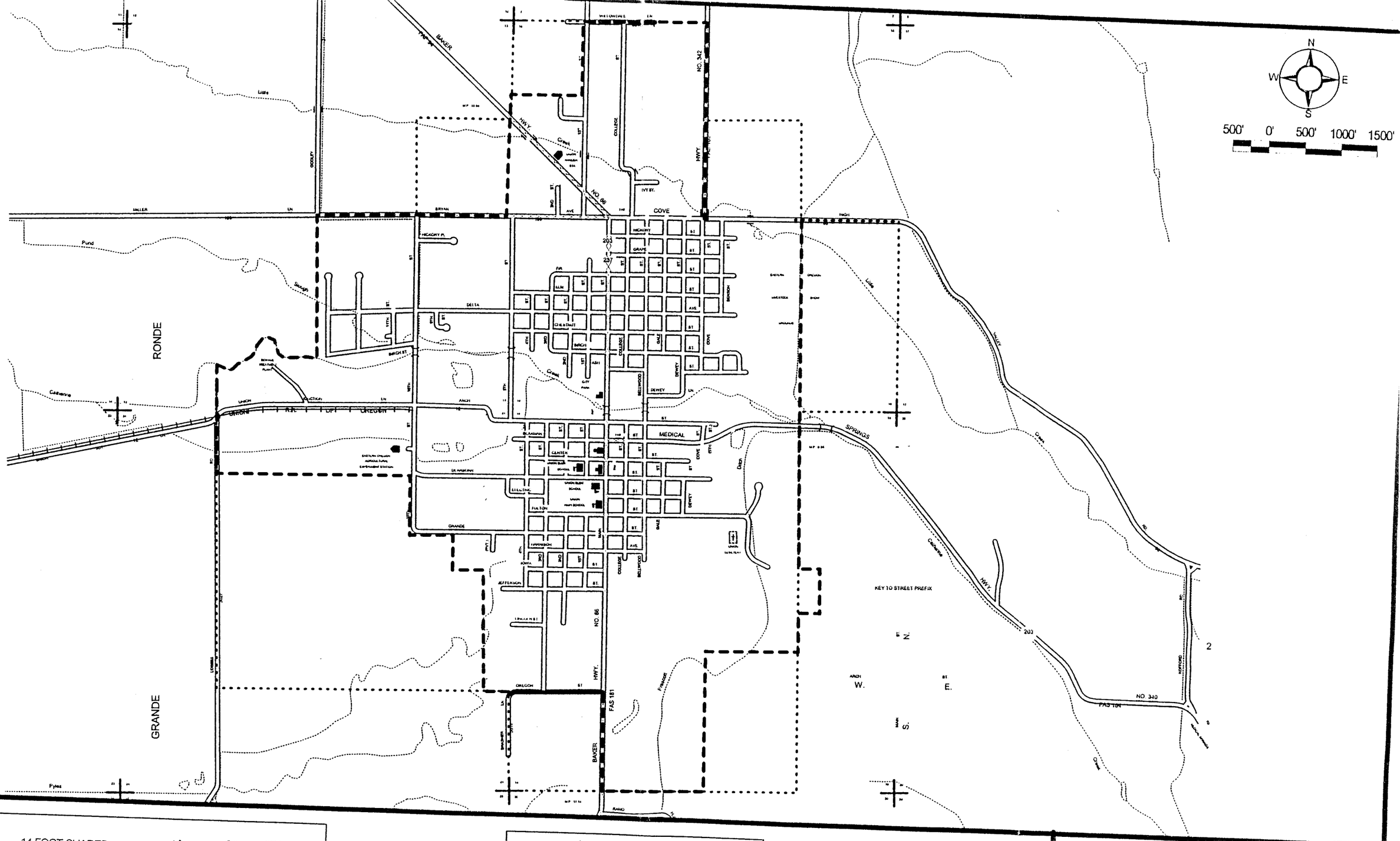

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FIGURE 4
BICYCLE NETWORK

EXISTING CONDITIONS

Transportation Demand Management

Park-and-ride programs, employer-based telecommuting, and flex-time programs are often referred to as transportation demand management programs. These programs currently have limited application and traffic benefits to the residents of Union. However, expanded use of employer-based flex-time and telecommuting programs is expected to occur in the future, particularly among federal and state employees.

Passenger Rail Service

Passenger rail service provided by Amtrak on the Pioneer Line, with service between Chicago and Portland, was discontinued in May 1997. The nearest passenger rail station was located in La Grande. Currently, there are no plans to resume passenger rail service by Amtrak along the Union Pacific mainline.

Freight Rail Service

The former Union Railroad Short Line has been partially abandoned and tracks between Arch Street and Main Street were removed in 1995. The rail remains in place between Union Junction and the industrial site on West Arch Street and is available for rehabilitation to meet commercial or industrial needs.

Air Service

The closest airport to Union is located nine miles west, near La Grande. This facility does not provide commercial air service but does offer private air strips, fuel, service facilities, and charter flights. The nearest commercial aviation facility is in Pendleton.

Public Utilities

The City of Union operates a sewage treatment plant with a capacity of 0.375 million gallons per day (gpd), with current demand running at about 0.25 million gpd. The sewer collection network is shown in Appendix F. Union's water is supplied from a 750,000 gallon reservoir east of town. The City has been doing updates on the water distribution and supply systems whenever funds are available. The last major project included replacing the waterline along Main Street (Highway 203) in 1994.

The current average water demand is 500,000 gpd with average water pressure of 70 pounds per square inch. Current local utility needs reported by the City of Union include:

- Developing another water storage tank;
- Replacing older waterlines, especially those that are asphaltic-concrete (AC) pipe, and enlarging some of the smaller lines;
- Installing another well; and
- Updating the sewage treatment plant and installing an alternative to using Catherine Creek to receive plant effluent (estimated cost at $5.0 million).

Pipeline Service

The Chevron oil pipeline runs through Union County near North Powder and La Grande into the state of Washington. The Northwest Natural Gas pipeline runs through northeast Oregon from Ontario to La Grande. Both Chevron and Northwest Natural Gas consider Union to be within their service area.

Existing Street and Bicycle/Pedestrian Design Standards

Roadway classification dictates the standards to which roads and pedestrian and bicycle facilities are designed. A road classification is determined through operational characteristics such as traffic volume, operating speeds, safety, and capacity. Specific design standards are needed to maintain adequate transportation circulation in a manner that is consistent with existing community character and user expectation. Roadway, bicycle, and pedestrian design standards are also intended to be consistent with county and state policies as well as current standards in transportation design.

The City of Union maintains jurisdiction for design, construction, and maintenance of local streets within city limits. Union County has jurisdiction over non-state facilities located outside the city limits but inside the Urban Growth Boundary area. The Oregon Department of Transportation is responsible for design and construction of state facilities, such as Highway 237 and Highway 203. The City of Union and Union County currently have similar street and road design standards.

Detailed roadway design standards within the City of Union are described in the Union Partition and Subdivision Ordinance. Design standards for bicycle and pedestrian facilities are described in the Union Bicycle-Pedestrian Plan.

The Union Partition and Subdivision Ordinance requires new streets and roads for public use to be dedicated without reservation or restriction other than reversionary rights upon vacation. Approval of tentative plans must clearly lay out streets, roads, and other public facilities such as water service, sewage disposal, stormwater drainage, flood control, telephone, electric, and gas utilities. The tentative plans must identify street classification and approximate centerline profiles with extensions for reasonable distance beyond the limits of the proposed partition or subdivision showing the approximate grade of streets and the nature and extent of street construction.

Street, roadway, and other utility design and improvement standards clearly describe the guidelines for conformity, dead-end streets or cul-de-sacs, frontage streets, and minor streets. The Union Partition and Subdivision Ordinance supports the arrangement of streets in new partitions and subdivisions that provide for the continuation of the existing street grid into adjoining areas. A local roadway network plan and map will help to ensure that local streets and rights-of-way will be extended in accordance with ordinance improvement standards, even under piecemeal development. The advantages of a local street network plan are further described in Appendix C.

Roadway street standards, summarized in Table 2, require a minimum 60-foot right-of-way width for arterial, collector, and local streets; and a minimum 50-foot right-of-way width for marginal access streets, roadways, or lanes. These standards may be altered as determined by the City Council due to topography, anticipated traffic volumes, soil conditions, continuation of existing street facilities, or other issues affecting right-of-way width and utility easement requirements.

Table 2
Existing Street Design Standards
City of Union

			Base		Leveling Course					
Street Class	ROW Width	Surface Width	Depth	Aggregate Size	Depth	Aggregate Size	Overlay Material	Shoulder Width	Sidewalk Location and Width	Bike Lane
Arterial Streets	60'	24	8"	1 1/2-3"	4"	3/4-1 1/2"	2" pavement	8'	5'	4-6' no/curb
Collector and Minor Streets	60'	24	8"	1 1/2-3"	4"	3/4-1 1/2"	2" pavement	6'	5'	shared roadway
Marginal Access*	30'*	20	8"	1 1/2-3"	4"	3/4-1 1/2"	2" crushed gravel	6'	None	

Note:
- *Marginal access rights-of-way shall not be less than 10% of street length, and shall be provided with utility easements on each side to provide 50' combined utility easement and right-of-way width.
- Streets or roads with anticipated commercial or industrial traffic shall have a minimum base depth of 12".
- All bridges shall have a 30-year minimum life expectancy and shall be constructed to load limit standards approved by the Council.
- The above standards may be altered if the Council determines that more (or less), extensive standards may be desirable because soil or topographical conditions, anticipated traffic counts, or continuation of existing street improvements or rights-of-way widths warrant such.

Average Daily Traffic

Average daily traffic (ADT) counts on major streets in the Union area were collected from the Oregon Department of Transportation and are summarized in Table 3. Traffic volumes are highest on State Highway 237/203 (Main Street) south of Beakman Street at 2,900 average vehicles per day. As indicated in Table 3, traffic volumes along Main Street have generally declined since 1980 with the closure of the Union lumber mill which is located between Arch Street and Dearborn Street. In general, traffic volumes along Highway 203 (Medical-Springs Highway) have increased steadily over the past three years.

Accident Levels

An analysis was conducted of vehicular accidents over the 1993 to 1995 time period from data compiled by the Oregon Department of Transportation. As depicted in Table 4, the data identified no severe accidents and no high accident locations within the urban growth area along the state highway facilities.

Existing Highway and Intersection Capacity

The traffic counts provided by the Oregon Department of Transportation were supplemented with peak traffic period counts estimated at selected locations in the City of Union. Peak period traffic turning movements were estimated for the following intersections:

- Delta/Highway 203
- Beakman/Highway 203
- High Valley Road/Highway 237/Cove Street/Bryan Street
- Beakman/Bellwood Street
- Bryan/Highway 203

The methodology used to evaluate future highway capacity levels is included in Appendix D. The traffic capacity analysis concluded that no existing capacity deficiencies are present within the Union urban area.

It should be noted that from time to time, residents have requested installation of a flashing school crossing light on S. Main Street because of pedestrian traffic congestion in the vicinity of the high school. However, ODOT does not support temporary traffic control devices on state highways and unsignalized intersections do not meet signal warrants at this time, nor are they projected to meet signal warrants under the Level 1 traffic analysis.

Demographic Characteristics

The number of residents in the City of Union and Union County have remained relatively stable over the past two decades. The current estimated population is 1,955 year-round residents in the City of Union, which is down slightly from 2,062 residents in 1980. As indicated in Table 5, population is projected to increase by 0.44 percent annually in both the City and County over the 20-year planning horizon. Growth within the City of Union is expected to result in 179 new residents and 90 to 100 new dwelling units (households) by the year 2017.

Table 3
City of Union
Highway Traffic Counts
1980-1995

Highway and Mile Post	Traffic Counts				
	1980	1990	1993	1994	1995
OR 237 (342)					
MP 21.57 (North city limits of Union)	650	610	540	560	520
MP 21.79 (.01 mile north of Bryan Avenue)	760	790	710	730	710
MP 21.81 (.01 mile west of Cove St.)	930	920	920	950	910
MP 22.08 (.01 mile east of La Grande-Baker Hwy.)	1,300	1,050	940	970	1,000
OR 203 / 237 (66)					
MP 15.58 (North city limits of Union)	1,800	1,850	2,200	2,200	2,200
MP 15.92 (.01 mile northwest of Cove Hwy)	2,100	1,950	2,900	2,900	2,300
MP 16.44 (.01 mile north of Arch St)	3,500	3,100	2,700	3,100	2,600
MP 16.52 (.01 mile south of Medical Springs Hwy)	3,400	3,000	3,000	3,000	2,900
MP 16.62 (.01 mile south of Dearborn St.)	1,800	1,950	1,700	1,700	1,700
MP 16.87 (.01 mile south of Fulton St.)	1,400	1,250	980	990	960
MP 17.44 (South city limits of Union)	500	620	670	680	520
OR 203 (340)					
MP .01 (.01 mile east of La Grande-Baker Hwy.)			1,000	1,000	1,300
MP .11 (.01 mile east of Bellwood Ave.)			710	720	940
MP .55 (East city limits of Union)			500	510	740

Source: Oregon Department of Transportation

Table 4
City of Union
Accident Data

Highway 203 MP .01 - .55

Mile Post	Average Daily Traffic	Total Accidents	Injuries A	Injuries B	Injuries C	Fatalities	96 SPIS Value
TOTAL	660	0	0	0	0	0	0.00

Highway 203 MP 15.58 - 17.44

Mile Post	Average Daily Traffic	Total Accidents	Injuries A	Injuries B	Injuries C	Fatalities	96 SPIS Value
MP 16.44	2,600	1	0	0	1	0	0.00
MP 16.93	960	1	0	0	0	0	0.00
TOTAL	1,780	2	0	0	1	0	0.00

Highway 237 MP 21.57- 22.08

Mile Post	Average Daily Traffic	Total Accidents	Injuries A	Injuries B	Injuries C	Fatalities	96 SPIS Value
TOTAL	520	0	0	0	0	0	0.00

Note:
Accident figures based upon 1993, 1994, and 1995 data.
Source: Oregon Department of Transportation

Compiled by Otak, Inc.

The local Union School District is the primary employer and traffic generator in the City. As a result, the majority of the City's 670-person labor force travel outside the community to work in La Grande or elsewhere. Union workers' commuting patterns are shown below:

	Union Mode Split	**Statewide Mode Split**
Drive Alone	69%	73%
Carpool	22%	13%
Walk, Bike, or Work at Home	9%	11%
Public Transit	0%	3%
Total	***100%***	***100%***
Mean Travel Time to Work (minutes)	19.5	19.6

These data indicate that Union residents already have a relatively large share of carpool and non-auto commuters in comparison to the State of Oregon.

Population age is an important factor in determining special transportation service requirements. In Union, there are approximately 338 people over age 65 (17.3%). This is a larger share of the population base than the state (13.8%) has, and is likely to increase in the near-term as the "baby boom" generation ages. The "baby boom" generation includes people born between 1950 and 1964. An aging population will demand a greater need for health care, nursing care, and special transportation services over the next 20 years.

Leading employment factors in Union County include services, trades, and manufacturing. Slight expansion is expected in these sectors over the next 20 years as the region diversifies its timber-oriented industrial base. Within the City of Union, the labor force is expected to expand by about 80 new workers by 2017, with a projected growth rate similar to Union County (12 percent employment growth over the 1995-2020 time period). It is expected that half of this growth will work within the Union UGB compared to 40 percent working locally today.

Table 5
Population Trends and Projections
Union County
1980 - 2017

	1980	1990	1996	1980-95 Growth Rate	Projected 1995-2017* Growth Rate	Projected 2017 Population
Union County	23,921	23,667	24,400	0.14%	0.44%	25,677
City of North Powder	451	507	555	1.54%	1.00%	677
City of Union	2,062	1,847	1,955	-0.37%	0.44%	2,134
City of Cove	430	448	600	2.64%	1.00%	732
City of La Grande	11,354	11,766	12,415	0.62%	0.50%	13,717

*Based upon projected population growth in Union County between 1995 and 2020.

Union County projected growth by Oregon Office of Economic Analysis long-term Population and Employment forecasts for Oregon; Jan. 97.

Sources: US Census Bureau; Eastern Oregon State College, Regional Service Institute; and Oregon Office of Economic Analysis.

Land Use

In rural communities, major new developments or redevelopment projects, such as mill site conversions, can have a dramatic impact on traffic levels. As part of the planning process, potential land use changes that may impact the need for transportation facilities were reviewed.

Future land use changes that are expected within the Union growth area include continuation of residential development to the north and northwest of the established street grid. The potential additional traffic generated by these land uses is expected to be accommodated through extension of the local street grid for residential development, and a combination of geometric and access improvements, and local collector street extensions to serve industrial and residential development in the south and west fringe of the urban growth area.

Level 1 Traffic Forecast

In accordance with Oregon Department of Transportation's transportation system planning guidelines for communities under 2,500 residents, a Level 1 traffic forecast methodology was applied which takes into account long-term trends and population projections. This analysis is also summarized in Appendix D.

The Level 1 traffic forecast is based on one percent per year traffic growth over the 20-year projection period. This rate of growth is double the recent Oregon Bureau of Economic Analysis long-term population forecasts for Union County but is consistent with historic growth trends in traffic. The result of the Level 1 analysis indicates that no congestion-related capacity improvements such as lane widening or signalization is expected during the planning period.

Level of service "grades" were not determined for this TSP since detailed peak hour traffic counts were not available and such detail is not required by ODOT's Transportation System Planning Guidelines. However, an unsignalized intersection capacity threshold analysis was conducted.

The unsignalized intersection capacity analysis is based on a prototypical four-way intersection of an arterial and minor local street with one travel lane in each direction (i.e., similar to the Main Street/Dearborn Street intersection). The analysis includes estimates of peak traffic flows and turning movements. The results of this threshold analysis are helpful in understanding the level of traffic generally required to meet unsignalized warrants as described in the Manual of Uniform Traffic Control Devices (MUTCD).

To meet the minimum vehicle volume warrant for traffic signals, the major street (in the case of Main Street, with one approach lane in each direction) has to carry a total of 300 vehicles per hour (vph) in both directions, and the minor street has to carry 100 vph in only one direction (assuming a one lane approach) for each of any eight hours of an average day. All intersections in Union do not meet this warrant today, nor are they expected to do so over the next 20 years. Other factors, such as safety, should also be considered in the future to determine if signal warrants are met. At

the time of this TSP analysis, no major safety or accident conditions were identified. Hence, no future traffic control devices are supported by the Level 1 analysis.

The transportation system alternatives analysis includes an evaluation of a "no build" scenario and identification of transportation demand management measures, such as public transit service and a list of potential transportation improvements. The potential transportation alternatives were formulated with the help of the Transportation Advisory Committee, the City Council, and the public at large. The improvements that are included in the transportation alternatives analysis are intended to address specific goals and objectives identified in the Introduction. Many of the alternatives shown in Figure 5 were refined and incorporated into the final recommendations.

No Build Scenario

The "no build" or "do nothing" scenario forms the basis for comparison with other transportation alternatives included in this analysis. The no build scenario assumes no major changes to the existing transportation system over the next 20 years. Traffic volumes are projected to increase by about 20 percent by year 2017 as population and employment rise. The future problems that would likely occur from increased traffic volumes include:

- If the former Union lumber mill site redevelops along with other planned industrial development in the south and residential development occurs in the west portion of the urban area, then additional vehicular turning movement conflicts and potential safety problems may arise on Highway 237/203 (Main Street) and at Dearborn Street, Arch Street and Bryan Avenue; and
- If residential development occurs around the perimeter of the existing local street grid in the absence of a local street network plan, then there may be inefficient or missing local street connections, inefficient land use within the urban area, and the need for costly public facility extensions to serve future annexations required to meet and serve anticipated levels of development.

Public Transportation

A number of senior citizens and transportation-disadvantaged individuals rely on public transportation as their sole source of transportation. The present pool of transit patrons in Union is estimated at less than five percent of the population (100 individuals) and is projected to increase as the baby boom generation (those born between 1950 and 1964) ages. The Transportation System Plan supports expanded public transportation for the transportation-disadvantaged with reliable and frequent connections to destinations in the region (i.e., La Grande and Baker City).

The Union County Transportation Coalition has established several future transit service objectives, including:

- Service extension from an 8-hour day to a 12- to 16-hour day;
- Increased use of May Lane as an alternative to Island Avenue, which is presently the primary route to Cove, with connections to Union and North Powder via Highway 237; and
- Collaboration with large employers to establish a park-and-ride system with contract commitments for service.

These transit service objectives are supported by the City of Union and are incorporated in the TSP.

Transportation Demand Management

The potential for transportation demand management programs, such as park-and-ride facilities, employer based carpools/vanpools, and flexible shift schedules, were considered as part of the transportation system plan process. The local transportation coalition foresees the need for park-and-rides and commuter related bus shuttles or carpool programs as a future goal throughout Union County. In addition, there is a state and national trend towards telecommuting and flex-time programs that should be supported locally in the Transportation System Plan.

Transportation Improvement Alternatives

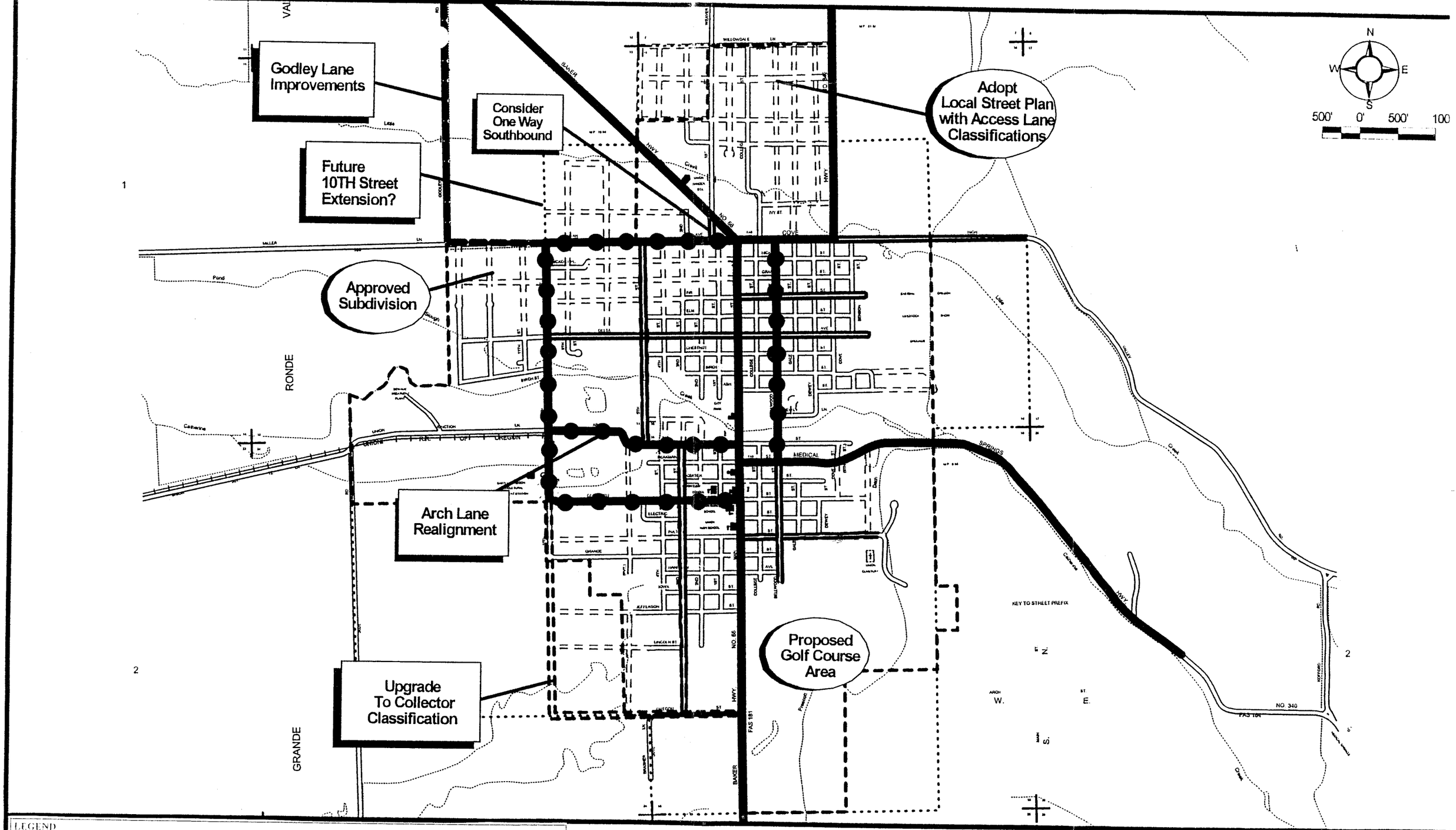
Several potential improvements were identified that could enhance the operations, accessibility and safety for Union's local roadway network. The transportation alternatives are intended to address existing and future deficiencies, preserve state highway facilities, and enhance local community character. A discussion and evaluation of improvement alternatives is described below and depicted in Figure 5.

10th Street Connection: Grande to Oregon — Given the potential for lumber mill site redevelopment and industrial development in the southwest portion of the urban area, along with planned and proposed residential development on the west side of the urban area, a new collector street extension was considered along west 10th Street connecting to Oregon Street and Highway 237. This transportation alternative includes extending and upgrading 10th Street between Oregon Street and Grande Street in Phase I.

If improved then this route would become an important major collector street to collect and distribute industrial truck and automobile traffic and would include a shared roadway for bicycle and pedestrian facilities. The primary purpose of this route would be to collect and distribute local traffic, however, it would likely alleviate some traffic from state Highways 237/203 (Main Street).

North 10th Street Extension — The north extension of 10th Street between Bryan Avenue and Highway 203 was considered because of limited north-south connections and sight-distance constraints at the 1st Street/Highway 237 intersection (see below). This improvement would only be possible if a UGB expansion occurs in the future as existing vacant lots within the urban area develop. With relatively low projected development levels and limited local and state funding, the north extension of 10th Street is not expected to occur within the 20-year planning horizon.

Godley Lane Improvement — Given limited north-south connections between Bryan Avenue and Highway 203 and local funding constraints, improvements to Godley Lane are favored in lieu of the north extension of 10th Street. Improvements to Godley Lane may include roadway reconstruction to County rural arterial standards and should be incorporated into the Union County Transportation System Plan.



City of Union
P.O. Box 529
Union, Oregon 97883

FIGURE 5
TRANSPORTATION SYSTEM PLAN ALTERNATIVES
FUTURE CONDITIONS

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* FUTURE STREET LOCATIONS ARE APPROXIMATE AND SUBJECT TO REFINEMENT

Redirection of Through Traffic on First Street Between Highway 237 and Miller Lane/Bryan Avenue — Concern was expressed during public meetings and workshops over the safety conditions associated with turning movements and sight distance constraints at the First Street/Highway 203 intersection. The project team evaluated making First Street one-way (either southbound or northbound) on the segment between Highway 203 and Bryan Avenue as a means to reduce turning movements at the Highway 203/Bryan intersection. Redirecting traffic was not favored locally given the relatively low amount of vehicle traffic on this segment and no accident history. However, the project team noted that an existing shed located on the southeast corner of the First Street/Highway 203 intersection impairs visibility for vehicles turning onto the highway. It is recommended that this structure be removed or relocated in the future as redevelopment of this parcel occurs.

Arch Street Realignment — Arch Street is a major collector street that provides east-west access to the center of Union between Highway 237 and 10th Street. A "dog-leg" turn near the center of Arch Street was identified as a safety concern from both a vehicular and pedestrian movement perspective. Conceptual realignment alternatives of Arch Street, such as straightening or modifying the dog-leg to improve safety and sight distance, were considered. The project team and community agreed that given the uncertainty of railroad ownership and right-of-way plans, the existing Arch Street alignment is adequate, but signage to warn vehicles of roadway geometry and speed should be better utilized.

3rd Street Collector Reclassification — Planned industrial and residential development in the southwest portion of the urban area is expected to result in increased auto, truck, and pedestrian traffic to/from this area thereby necessitating the upgrade of 3rd Street between Oregon Street and Arch Street.

Proposed Golf Course Area/Fulton Street Collector Classification — A planned golf course development project is proceeding within the southeast portion of the urban area. At this time, specific development plans and public facility extension plans are not known. However, pedestrian and auto traffic along Fulton Street, east of Main Street, is expected to increase, thereby necessitating the upgrade of this segment of Fulton Street.

Local Street Plans — A local street network plan will be adopted as part of the Transportation System Plan as a means to guide future development patterns and public facility extensions. A local street plan map will indicate approximate, desired local street connections as large, undeveloped parcels apply for development approval. The purpose of the local street plan is to ensure that an adequate hierarchy of local, collector, and arterial streets is provided within the urban area in a manner that optimizes the potential number of parcels that may be developed with minimal or no urban growth boundary expansion.

The local street plan will work in conjunction with existing City standards to determine minimum lot size and local/state access management spacing standards. Local streets would be paid for and constructed by private property owners/developers as development is approved and would be maintained by the City through the street maintenance fund. However, interim design standards will be accepted to minimize cost to property owners/developers and to incrementally achieve the local street plan spacing patterns over time as separate property owners consider land for redevelopment.

Marginal Access Lane Design Standards — The City could adopt new street design standards for new development in areas that serve a maximum of five dwellings. The access lane standard would include a minimum 50-foot dedicated public street right-of-way with 24-32 feet of oil mat or better road surface and drainage swales off sides of the roadway. In order to safely accommodate the emergency vehicle access requirement of 20 feet, on-street parking would be prohibited and dwellings would be required to provide at least two off-street parking spaces in private driveways. Given concern over the amount of on-street parking that would likely occur anyway from residents or their visitors, need for adequate snow storage locations, and emergency vehicle access requirements, the meeting attendees are opposed to local access lane classification standards and favor the existing 60-foot local street standards.

Local Street Network Plan Design Standards — The community requested that the future conditions map be built upon Union's existing street grid by extending it to the northwest and northeast where new development is likely to occur. The project team is recommending a local street plan be adopted as part of the Transportation System Plan to maximize and organize new development and ensure local street access.

The City's subdivision ordinance currently provides for alleys, marginal access streets, local streets, collectors, and arterial streets. Union was originally platted with 60-foot standard right-of-way widths for most streets and a 100-foot right-of-way width on Center Street. A local street plan that considers 50-foot right-of-way widths for marginal access streets should only be considered for access to a limited number of parcels and given specific limiting conditions (such as no on-street parking, maximum build-out allowed, and no opportunity for further street expansion).

The community supported a local street plan that included marginal access lanes with a 24-foot wide surface and no on-street parking in a 50-foot right-of-way; used only to access two to five dwellings; and where opportunity for local street expansion is shown not to exist.

Local street plans should be designed to include 12-foot travel lanes, eight-foot parking lanes, a drainageway landscape strip, and adequate width for sidewalks and utilities within a 60-foot right-of-way. The community concluded that a demarcation, such as a minor swale, should be provided between the travel lane and the parking strip.

Wherever possible, local streets should be fully improved at the time of development. One option would be to allow interim improvements, such as a gravel surface, for partitions (no more than three parcels). Full local street improvements would be required for any subdivisions (four or more lots).

Specific Bicycle-Pedestrian Facilities

The specific improvements included in the Union Bicycle-Pedestrian Plan were adopted by the City in 1996 and are incorporated in Section 5 — Recommendations.

Evaluation Criteria

Evaluation of potential transportation improvements was based primarily on the feedback from local community residents, Planning Commission and City Council members, and the Transportation Advisory Committee. Feedback took into account qualitative safety, environmental, socio-economic, and land use impacts, as well as local cost requirements.

A detailed cost estimate was not required at this level of analysis because identified transportation improvements did not include capital-intensive local street projects. Instead, analysis focused on projects that would be funded privately or through state funding programs as private development and state highway reconstruction occurs. The evaluation of the transportation improvements not only resulted in specific improvements to be incorporated into the preferred recommendations, but also included improvement priorities that are discussed in the funding plan section.

Transportation Alternatives Not in Final TSP

Transportation alternatives not included in the future roadway plan and the rationale for elimination include:

- ***North 10th Street Extension*** — This potential local street extension can only be considered concurrent with UGB expansion and if justified by growth in traffic volume and development. Such conditions are not expected within the 20 year planning period.
- ***Redirection of Through Traffic on First Street*** — Turning this segment of First Street between Bryan Avenue and Highway 237 into a one-way couplet (north or south bound) would complicate local traffic patterns and is not supported locally nor justified by accident history.
- ***Arch Street Realignment*** — Due to the potential cost of right-of-way acquisition, residential property impacts, and limited benefits, realignment of Arch Street will not be pursued at this time.
- ***Godley Lane Improvement*** — Because Godley Lane lies outside of Union's Urban Growth Boundary, this improvement will be incorporated into the Union County Transportation System Plan.

This section provides a detailed list of transportation plan improvements that are intended to meet this plan's goals and objectives. This section includes enhancements for all modes of transportation including the roadway network, bicycle and pedestrian facilities, freight, and public transportation. This section also discusses street classification standards and recommends access management standards.

Future Transportation Network

The recommendations are illustrated in Figure 6. The transportation system improvements have been numbered to assist plan users in cross-referencing improvements with costs and priorities. Improvement numbers do not indicate project priority. A summary of roadway projects is listed in Table 6 and bicycle/pedestrian projects are listed in Table 7.

Efficient Land Use Planning

Land use projects being planned include redevelopment of the former lumber mill site (south of Arch Street); residential subdivisions on the west portion of the urban area; and a planned public golf course in the southeast portion of the urban area. The specific code amendments included in Section 8 will ensure that state Transportation Planning Rule policies are met, which will result in efficient land use planning.

Local Street Plan

The purpose of the local street plan (Improvement 1) is to provide a general guide for extending local streets and public facilities (sewer, water, telephone, and electric) into undeveloped areas of the City over time. A local street plan ensures that an adequate local street network will be provided as large parcels subdivide and develop. Local street plans optimize efficient land use and retain community character during growth. The local street plan is also cost-effective to the local jurisdiction because right-of-way and utility improvements are provided or paid for by the property owner/developer; therefore, the need for annexations, Urban Growth Boundary expansions, and public facility extensions are minimized. Examples of local street plan benefits and phasing strategies are presented in Appendix C.

Connectivity Improvements

Connectivity improvements include roadway reclassification, improved pedestrian and bicycle facility connections, and proposed local truck routes to reduce turning movements and safety conflicts. Specific connectivity improvements described in the prior transportation system alternatives analysis and included in the preferred transportation system recommendations include:

- *Hickory Place Local Street Connections* — Project is incorporated into local street plan.
- *Upgrade Fulton Street between Main Street and the cemetery to a Minor Collector Classification (Improvement 2)* — Project may require roadway widening to provide shared travel lanes for bicycles and a continuous sidewalk on the south side of the street.
- *Upgrade 3rd Street between Oregon Street and Arch Street to a Minor Collector Classification (Improvement 3)* — Pavement surface maintenance is a priority along this school access route.

1. Adopt Local Street Plan with Access Lane Classification

2. & 3. Upgrade to Collector Classification

Proposed Golf Course Area

PLATTED TO 5 AC. MINIMUM LOT SIZE

7. Bridge Reconstructions (4 Projects)

Hickory Place Connections

4. & 5. 10th Street Extension/ Classification Upgrade

Mill Site Redevelopment Opportunity

Approved Subdivision

6. Godley Lane Improvements/ Upgrade to County Arterial Classification

LEGEND

- FUTURE LOCAL STREETS*
- FUTURE COLLECTOR STREETS*
- URBAN GROWTH BOUNDARY
- CITY LIMITS (OUTSIDE UGB)

* FUTURE STREET LOCATIONS ARE APPROXIMATE AND SUBJECT TO REFINEMENT

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CITY OF UNION

FIGURE 6
TRANSPORTATION SYSTEM PLAN
FUTURE CONDITIONS

SHEET
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Table 6
City of Union
Transportation System Plan
Proposed Roadway Projects

Project	Improvement	Description	Length (mi)	Cost ($)
Local Street Plans	1	Misc. local street connections: Assumes two 12-foot travel lanes.	8.73	$2,766,000 ($60/ft.)
Fulton Street Classification Upgrade	2	Upgrade to collector classification, and provide a sidewalk on south side of street.	0.35	$46,000 ($25/ft.)
3rd Street Upgrade	3	Upgrade to collector classification, and improve pavement surface.	0.7	$37,000 ($10/ft.)
10th Street Extension: Oregon St. to Grande St.	4	Extend and upgrade to collector classification. Provide two 14-foot travel lanes, 6 ft. paved shoulders.	0.6	$238,000 ($75/ft.)
5th Street Reclassification, Upgrade	5	Upgrade to collector classification, and improve pavement surface.	0.47	$25,000 ($10/ft.)
Godley Road Improvements	6	Consider reclassification and improvement of Godley Rd. to County arterial or major collector standards.	1	*
Misc. Bridge Structure Reconstruction	7	Reconstruct bridge structures over Catherine and Little Creeks (four structures)	N/A	$400,000

* Costs not estimated at this time

1/ Note: planning level capital costs exclude any right-of-way acquisition, environmental mitigation, or special engineering costs.

- *Upgrade/Extend 10th Street Between Grande Street and Oregon Street (Improvement 4)* — Project includes new minor collector street extension with two 14-foot travel lanes, paved 6-foot shoulders for shared bikeways;
- *Upgrade 5th Street between Bryan Avenue and Arch Street to a minor collector classification (Improvement 5)* — Project includes pavement surface improvement.
- *Godley Lane Improvements (Improvement 6)* — This includes reclassification to a County rural arterial or major collector standard during adoption of the Union County Transportation System Plan. This reclassification should increase priority preference for reconstruction of Godley Lane to help serve as an adequate north-south roadway alternative for traffic accessing Highway 237. This improvement would help reduce local turning movements at the intersection of Bryan Avenue/Main Street (Highway 237) and 1st Street/Highway 237.
- *Bridge Structure Reconstructions (Improvement 7)* — There are four existing bridge crossings that are expected to be replaced during the next 20 years. These structures include three Little Creek crossings (on College Street, First Street, and East Bryan Street) and the structure that crosses Catherine Creek at 5th Street, south of Chestnut Street.

Bicycle and Pedestrian System Plan

The detailed bicycle and pedestrian system plan is summarized in the Union Bicycle-Pedestrian Plan, adopted in September, 1996. The plan includes specific recommendations for enhancing pedestrian and bicycle facilities which are listed in Table 7 and illustrated in Figures 7 and 8.

Public Transportation and Transportation Demand Management Plan

Existing public transportation service is limited to one stop per week by one Community Connections of Northeast Oregon shuttle van. Future plans to augment Union County Transportation Coalition public transit service are now being considered. Such service could provide demand responsive transit service to Union residents or may include limited fixed-route service options. In addition to public transit, public support and educational programs targeted at telecommuting should be encouraged throughout the county.

Telecommuting and flexible work schedules, when used in conjunction with employer-based programs, can provide employees the capability to perform their work at home instead of traveling to a distant work place. Telecommuting is expected to increase throughout Oregon over the next 20 years. Technology and communication improvements will likely support continued growth and development in rural communities such as Union.

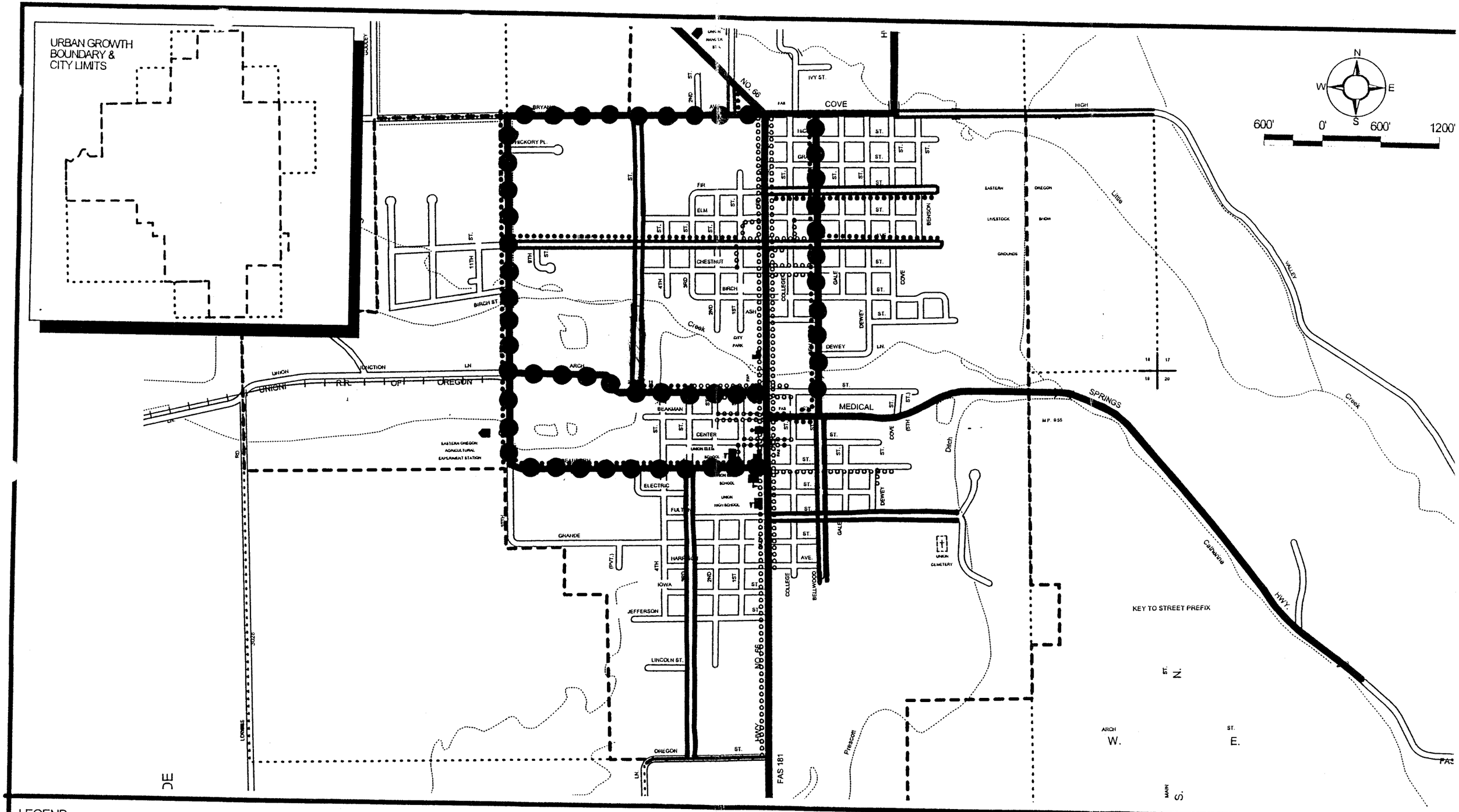
Future public transportation and transportation demand management improvements in this TSP include:

- Service extension from an eight-hour day to a 12- to 16-hour day;
- Increased use of May Lane as an alternative to Island Avenue, which is presently the primary route to Cove, with connections to Union and North Powder via Highway 237; and
- Collaboration with large employers in the county to establish a park-and-ride system with contract commitments for service.

Table 7
City of Union
Transportation System Plan
Proposed Bicycle and Pedestrian Projects

Location	Project Description	Length (mi.)	Priority	Cost ($)
Hwy. 203				
Main St. - Bellwood	Re-condition pavement from Main to Bellwood. Paint shared travel lanes and parking lanes. Replace north sidewalk.	0.95 mi.	High	$11,000
College - Bellwood	Reconstruct the pavement and install curb and gutter. Paint shared travel lanes and parking lanes. Install two sidewalks.	0.95 mi.	High	$27,000
Main - College	Pavement re-condition and sidewalk construction.	0.95 mi.	High	$12,000
Bellwood - East City Limits	Improve bike and pedestrian safety by widening pavement to provide two shared travel lanes and two paved shoulders.	0.32 mi.	High	$32,000
Arch Street				
10th - Main St.	Widen paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.29 mi.	High	$56,000
Bellwood Street				
Cove Hwy. - Medical Springs Hwy.	Widen paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.57 mi.	High	$110,000
Bryan Avenue				
Main St. - 10th St.	Maintain paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.29 mi.	Medium	$36,000
Main St. - East city limits	Widen paved road surface to provide travel lanes with two paved shoulder bikeways.	0.29 mi.	High	$29,000
10th Street				
Bryan Ave - Dearborn St.	Widen paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.66 mi.	High	$127,000
Dearborn Street				
Main St. - 10th St.	Widen paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.29 mi.	Low	$56,000
Delta Ave				
10th St. - Livestock Grounds	Widen paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.83 mi.	Medium	$160,000
Fir Street				
Main St. - Livestock Grounds	Widen paved road surface to provide two shared travel lanes. Install continuous sidewalk with permeable strip.	0.33 mi.	Medium	$64,000
1st Street				
Bryan Ave - La Grande\Baker Hwy.	Widen roadway to provide travel lanes for shared automobile and bike use. Install sidewalk with permeable strip.	0.57 mi.	High	$11,000

Source: Union Bicycle - Pedestrian Plan, 1995
Note: costs are in 1997 dollar amounts



LEGEND

- URBAN GROWTH BOUNDARY
- CITY LIMITS (OUTSIDE UGB)
- SIDEWALKS
- FUTURE SIDEWALKS

City of Union

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FIGURE 7
PEDESTRIAN NETWORK
FUTURE CONDITIONS

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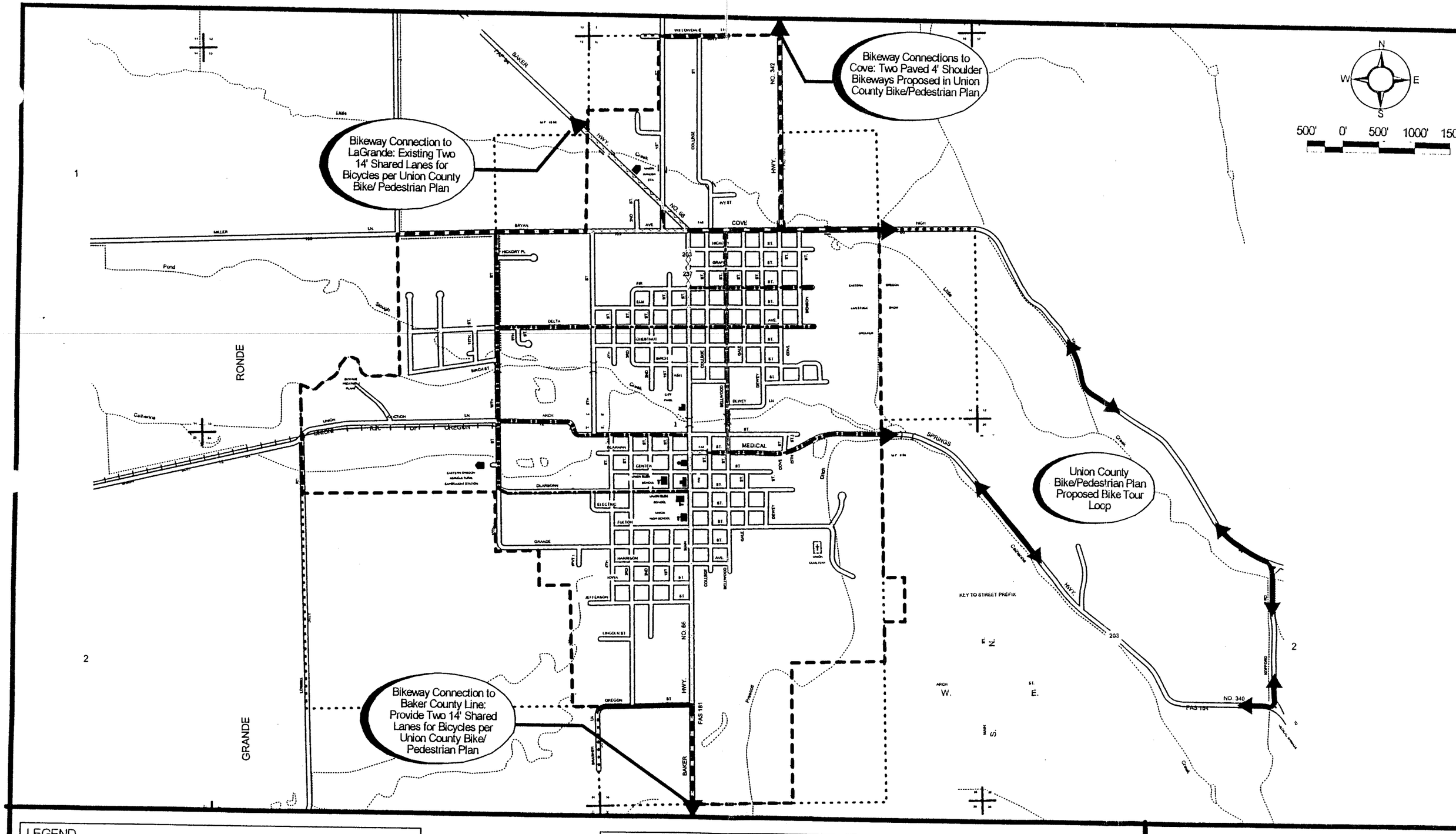

LEGEND

- 14 FOOT SHARED LANES FOR BICYCLES
- SHOULDER BIKEWAYS
- BICYCLE LANES
- CITY LIMITS (OUTSIDE UGB)
- URBAN GROWTH BOUNDARY

City of Union

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Union, Oregon 97883

FIGURE 8
BICYCLE NETWORK

FUTURE CONDITIONS

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Rail Service Plan

There are currently no plans to replace Amtrak passenger rail service on the former Pioneer route. Preservation and reuse of the former Union railroad spur is supported by the TSP. Redevelopment of the former Western Timber Mill site is expected to occur and its industrial zoning classification should be retained to encourage intermodal rail/truck development.

Air Service Plan

The nearest aviation facilities are located within Union County near La Grande. The airport does not provide commercial air service but charter flights are available. The airport also provides life flight, fueling, and private landing strips. The nearest commercial airport is in Pendleton. Any recommendations to these commercial and municipal airport facilities are not within the scope of the Transportation System Plan.

The Airport Master Plan was last updated and adopted in 1989. A master plan update has been initiated to recognize several significant changes which have occurred since 1989, including:

- A 1995 runway extension to meet FHWA standards.
- A 1995/96 zone change to light industrial use for a portion of airport land owned by the county
- Future runway extension(s).

The revised Airport Master Plan will support the pursuit of a commercial air carrier.

Public Facility Plans for Sewer, Water, Electric and Pipelines

The local street plan identified on the Transportation System Plan map provides an approximate location for the extension of local roads and other public facilities such as sewer, water, telephone, and electric utilities. Appendix F provides existing and planned sewer and water facilities maps that were considered in the TSP's local street plan. However, precise locations for streets and other public facilities are subject to refinement as described in Section 8 — Implementation. The recommended street standards include adequate right-of-way widths for provision of public utilities.

Future connections with the Chevron or Northwest Natural Gas pipelines will be provided on a user-needed basis.

To meet the requirements of the Transportation Planning Rule, the Union Transportation System Plan (TSP) must have a transportation financing program that includes the following:

- A list of planned transportation facilities and major improvements
- A general estimate of the priority or timing of planned facilities and improvements
- Determination of rough conceptual capital cost estimates
- A discussion of existing and potential financing sources

The preliminary capital cost estimates identified in this section are for planning level analysis only. The costs were derived assuming unit price factors for each improvement. All costs exclude land acquisition or special environmental impact mitigation requirements and are stated in 1997 dollars.

Planned Facilities and Improvements

Previous analysis of existing transportation conditions, land use/development projections, and future transportation/traffic conditions were used to identify specific roadway, intersection, and pedestrian/bikeway projects that would address congestion and safety issues within the Urban Growth Boundary.

Project priorities have been identified in two categories. "High Priority" projects include the highest priority improvements and are assumed to occur within the next 10 years. This includes projects that occur in conjunction with private development projects. "Low Priority" includes projects to be constructed in years 10-20 of plan implementation.

Table 8 summarizes the roadway, bicycle, and pedestrian capital improvements identified in the TSP. The list includes project priorities, capital cost estimates, and potential funding sources, such as state, city, or private funding responsibilities. For the purpose of this funding plan, state funding sources include capital improvement program funds, annual grant funding programs (e.g., bicycle-pedestrian program), and Immediate Opportunity Funds. Local private funding and public funding sources are discussed below.

While all of the roadway improvements on major collector and arterial streets would be designed to accommodate pedestrians and bicycles, detailed plans for pedestrian and bikeway facilities are incorporated into the Union Bicycle-Pedestrian Plan. The ability to fund local pedestrian and bicycle projects will depend greatly on the city's ability to obtain special state grants and local property owners' support for improvements through funding contributions (i.e., local improvement districts) or special voter approved levies.

The state is expected to play a role in funding major improvements along Highway 237 (Main Street) and Highway 203. The state's involvement in funding all facility improvements will depend on planned economic development projects (such as mill site redevelopment) that generate local job creation; availability of pedestrian/bicycle facilities grants; and the ability for investments to improve circulation and safety on state Highways 237 and 203.

Table 8
City of Union
Transportation Funding Plan
Proposed Street, Bicycle, and Pedestrian Projects

					Funding Allocation		
Project	**Description**	**Length (mi)**	**Priority**	**Cost ($)**	**Local Private**	**Local Public**	**State**
Local Street Plans	Misc. local street connections: Assumes two 12-foot travel lanes.	**8.73**	HIGH	**$2,766,000**	100%	0%	0%
Fulton Street Classification Upgrade	Upgrade to minor collector classification.	0.35	HIGH	$46,000	-	80%	20%
Hwy. 203 Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	1.3	HIGH	$181,000	-	-	100%
Arch Street Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.29	HIGH	$56,000	-	50%	50%
Bellwood Street Classification Upgrade & Bike/Ped	Street reclassification and miscellaneous bicycle and pedestrian enhancements	.57	HIGH	$110,000	-	50%	50%
10th Street Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.66	HIGH	$127,000	-	50%	50%
1st Street Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.57	HIGH	$110,000	-	50%	50%
10th Street Extension: Oregon St. to Grande St.	Extend and upgrade to collector classification. Provide two 14-foot travel lanes, 6 ft. paved bikeway shoulders.	0.6	LOW	$269,000	-	50%	50%
Godley Lane Improvement	Consider reclassification and improvement of Godley Rd. to county arterial or major collector standards.	1	LOW	*	-	*	*
Bryan Avenue Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.29	MEDIUM	$65,000	-	50%	50%
Delta Avenue Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.83	MEDIUM	$160,000	-	50%	50%
Fir Street Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.33	MEDIUM	$64,000	-	50%	50%
Misc. Bridge Structure Reconstruction	Reconstruct bridge structures over Catherine and Little Creeks (four structures)	N/A	MEDIUM	$400,000	-	50%	50%
3rd Street Classification Upgrade	Upgrade to collector classification.	0.7	LOW	$37,000	-	80%	20%
5th Street Classification Upgrade	Upgrade to collector classification	0.47	LOW	$25,000	-	80%	20%
Dearborn Street Bike/Ped	Miscellaneous bicycle and pedestrian enhancements	0.29	LOW	$56,000	-	50%	50%
Total for HIGH Priority Projects				$3,396,000	$2,766,000	$238,300	$391,700
Total for MEDIUM Projects				$689,000	N/A	$344,500	$344,500
Total for LOW Priority Projects				$387,000	N/A	$212,100	$174,900

* Costs and funding allocation not estimated.
1/ Note: planning level capital costs exclude any right-of-way acquisition, environmental mitigation, or special engineering costs.
2/ State funding share is conceptual and not presently committed.

Transportation Financing and Funding Overview

Funding describes methods that generate revenue for transportation projects. Financing refers to how projects are paid for over time. Transportation projects are often paid for using a combination of funding and financing.

Funding for transportation improvement projects is typically derived from three sources: federal, state, and local governments. A description of the funding sources from each of these three categories follows. In some cases, funds may come from one level of government (such as ODOT or OEDD) to be spent by another level of government (i.e., City of Union or Union County).

For each of the funding alternatives listed below there is a brief description, a listing of the existing application (i.e., who is presently using this method), and a short discussion of the potential for implementing the alternative. No effort has been made to screen alternatives according to their political or legal feasibility. The intent is to provide an overview of a number of alternative revenue sources. The decision on how the funds are spent is ultimately a policy issue to be decided by the City Council and/or local constituency.

Federal Funding Options

Intermodal Surface Transportation Efficiency Act (ISTEA)

Description: In 1991, Congress passed, and the President signed, the Intermodal Surface Transportation Efficiency Act (ISTEA). The act, which is now being redrafted by Congress, emphasizes flexibility in funding transportation solutions and establishes a series of funding categories for implementation. Funding through ISTEA is targeted at improvement to all modes of transportation that demonstrate benefits which enhance the multi-modal nature of the transportation system and meet local land use, economic, and environmental goals.

Existing Application: Transportation improvement projects within Union are potentially eligible for funding through a number of categories under ISTEA. These categories include:

- National Highway System (NHS): Highways in this category include all interstate routes and major urban and rural principal arterials. I-84 is a route on the National Highway System.
- Surface Transportation Program (STP): Funding through this category may be used on roads that are not functionally classified as local collectors or rural minor collectors. These roads are now collectively referred to as federal-aid routes.
- Special Enhancement Program: Funding through this category may be used for providing pedestrian, bicycle and transit facilities, and improvements or programs that enhance scenic or historic resources. Local jurisdictions need to coordinate with ODOT Region 5 to receive ISTEA funding.

Community Development Block Grants (CDBG)

The Federal Department of Housing and Urban Development offers a Community Development Block Grant Program (CDBG). To receive CDBG funds, cities must compete for grants based upon a formula that includes their size and other factors such as rural/urban status, demographics,

local funding match, and potential benefits to low-to-moderate income residents, including new job creation. CDBG funds can also be used for emerging public works needs.

Potential: In small rural communities this program has limited application but may be a source of street funds for roads serving new developments that support job creation or multi-family housing. CDBG funding requests should be coordinated through Union County.

Federal Economic Development Administration (EDA)
The Federal Economic Development Administration provides annual grant funding on a competitive basis for public works improvements that directly generate or retain jobs in local communities. These funds can be used for local utilities and transportation facilities that serve new development sites.

Potential: EDA funds are difficult to obtain but could be considered for targeted improvements, like mill site redevelopment or local industry expansion. Funding requests for EDA grants should be coordinated with Union County and the OEDD Region 13 office in La Grande.

State Funding Options

State Motor Vehicle Fund
Description: The State of Oregon currently collects the following fuel and vehicle fees for the State Motor Vehicle Fund:

- State Gas Tax $0.24 per gallon
- Vehicle Registration Fee $15.00 per year

In addition, a weight-mile tax is assessed on freight carriers to reflect their use of state highways. The revenue from this funding source is used by ODOT and distributed to cities and counties throughout the state. Each city's distribution is based on a city's share of statewide population while the county distribution is based on a county's share of statewide vehicle registration.

Existing Application: ODOT Region 5, Union County, and the City of Union receive funds from the State Motor Vehicle Fund. ODOT uses their allocation from the State Motor Vehicle Fund for maintenance and capital purposes. The State Transportation Improvement Program (STIP) describes the capital projects to be funded by ODOT. Union County and the City of Union typically use their funding allocation for street maintenance, snow removal, and related maintenance areas.

The state distributes 15.57 percent of the State Motor Vehicle Fund to cities and 24.38 percent to counties based on a per capita rate (cities) and vehicle registration shares (counties). The remaining amount in the State Motor Vehicle Fund is used to maintain and enhance the state highway system. The state operates a grant program available to cities for bicycle-related transportation system improvements and one percent of the fuel tax returned to cities and counties is designated for on-system bike paths and lanes.

Potential: In fiscal year 1996/97 Union received $20,000 from this funding source. As population increases, and the number of registered vehicles and fuel sales increase, the total revenue from the State Motor Vehicle Fund will rise. However, if the fees (tax per gallon) stay at current levels then there will be a reduction in buying power due to inflation. Passage of an increased transportation funding package would result in increases in both the state gas tax and vehicle registration fees, and ultimately, local revenues.

Special Public Works Funds (SPWF) and Immediate Opportunity Funds (IOF) — Lottery Program

Description: The State of Oregon, through the Economic Development Department, provides grants and loans to local governments to construct, improve, and repair public infrastructure in order to support local economic development and create new jobs.

Existing Application: SPWF and IOF funds have been used in a number of cities for the construction of water, sewer, and limited street improvements.

Potential: These funds are limited to situations where it can be documented how a project will contribute to economic development and family-wage job creation. These programs most likely apply to mill site redevelopment and new freeway commercial development projects proposed by private developers. Funding applications should be coordinated with Union County, OEDD, and ODOT.

Special City Allotment

Description: SCA funding is available to incorporated cities with a population of less than 5,000 people. This funding comes from state gas tax funds and provides grants to selected cities of up to $25,000. Cities are annually asked by ODOT to submit local street system projects. Cities can apply only if previous SCA Grants are complete and paid for. ODOT regions evaluate project proposals from each city and rank each proposal.

Application: ODOT Region 5 is usually allocated eight grants per year for small cities.

State Bicycle-Pedestrian Grants

Description: Cities and counties can apply annually for bicycle facility or sidewalk grants for projects they have selected. Grants for projects on local street systems have a match of 20 percent while projects next to state highways have no match. Each bicycle-pedestrian grant cannot exceed $100,000 in state bike funds. Project evaluation and selection statewide is made annually by the Statewide Bicycle/Pedestrian Committee.

Application: Communities throughout Union County have successfully received these grants for bicycle and sidewalk improvements.

Oregon Infrastructure Bank
Description: In 1996, Oregon became part of a 10-state national pilot program intended to provide innovative funding for a variety of highway and transit capital projects. The OIB helps fund needed infrastructure by making revolving loans to communities throughout Oregon. The important advantages of the OIB include providing low, tax-exempt interest rate loans, quick processing of loan applications, and administrative simplicity.

Application: The first round of loans from the OIB totaled $5.8 million including funding from state highway money and federal matching funds. Representative projects include transit facilities in Hood River, Marion County, and Washington County; planning for the Newberg-Dundee Bypass and the Tualatin-Sherwood Highway; and a statewide rideshare vanpool program. Momentum appears to be building in support of this program as the U.S. Congress considers authorizing state infrastructure banks to use federal funds for other modes.

Potential: This may become a viable alternative to local bond levies, especially for innovative or multi-modal projects.

Local Funding Options

The following programs are used by cities for the funding of transportation improvements:

General Obligation Bonds (G.O. Bonds)
Description: Bonds are often sold by a municipal government to fund transportation (or other types) of improvements and are repaid with property tax revenue generated by that local government. Under Measure 50, voters must approve G.O. Bond sales with at least a 50 percent voter turnout.

Existing Application: Cities all over the state use this method to finance the construction of transportation improvements. For smaller jurisdictions, the cost of issuing bonds vs. the amount that they can reasonably issue creates a problem. Underwriting costs can become a high percentage of the total cost for smaller issues. According to a League of Oregon Cities representative, the state is considering developing a "Bond Pool" for smaller jurisdictions. By pooling together several small bond issues, they will be able to achieve an economy of scale and lower costs.

Potential: Within the limitations outlined above, G.O. bonding can be a viable alternative for funding transportation improvements when focused on specific projects, such as Center Street reconstruction.

Serial Levy/Property Taxes within the Limits of Ballot Measure 50
Description: Local property tax revenue (city or county) could be used to fund transportation improvements through a serial bond levy.

Existing Application: Revenue from property taxes are deposited in a local government general fund where it is spent on a variety of uses. Transportation capital improvements are frequently funded by property tax revenue. However, with Measure 50 limitations, use of property taxes for transportation capital improvement projects will continue to compete with other general government services. Limitations are set at the 3 percent assessed value increase allowed by Measure 50; and the local tax limits of $15 per $1,000 of assessed value established under Measure 5. Under Measure 50, however, there is no limit on assessed value generated by new construction.

Potential: Because the potential for increased funding from property tax revenue is limited by Ballot Measures 5 and 50 and by competition from other general fund services, it is only a practical source for financing major local street improvements when long term contributions can accumulate.

Revenue Bonds

Description: Revenue Bonds are those bonds sold by a city and repaid from an enterprise fund with a steady revenue stream such as a water or sewer fund. The bonds are typically sold to fund improvements on the system producing the revenue.

Existing Application: Revenue bonds are a common means to fund large, high-cost capital improvements that have a long, useful life. A water or sewage treatment plant is a good example where the high construction cost over a short period makes it difficult to pay for construction from operating funds, yet a long-term revenue stream from sewer revenues makes the sale of bonds a viable alternative; spreading the cost of the facility improvement over a long period of time. Innovative applications include the City of Independence where local fuel tax revenue was pledged to finance revenue bonds to fund street improvements.

Potential: Revenue bonds are not a likely local funding source for roads or other transportation in small jurisdictions.

Transportation System Development Charges (SDC)

Description: A transportation system development charge (SDC) or traffic impact fee is a fee charged to new development to pay for infrastructure improvements needed as a result of development.

Existing Application: Cities now use transportation SDCs (or traffic impact fees) to assist in funding traffic improvements attributed to new development (e.g., Harris-Pine Mill site redevelopment in Pendleton).

Potential: This is not expected to be a likely source of local funding.

Local Vehicle Fuel Tax
Description: Local jurisdictions can implement a local gas tax that would be in addition to the state gas tax it currently receives.

Existing Application: Five jurisdictions in Oregon have a local gas tax — Woodburn ($0.01/gallon), Washington Co. ($0.01/gallon), Tillamook ($0.015/gallon), The Dalles ($0.01/gallon), and Multnomah Co. ($0.03/gallon). The local gas taxes have raised the following amounts:

Woodburn	$ 115,000	(1995/96)
Tillamook	$ 106,000	(1995/96)
The Dalles	$ 329,000	(1995/96)
Multnomah County	$6,925,000	(1995/96)
Washington County	$1,660,095	(1995/96)

Potential: Although there is some potential if considered county-wide rather than by small cities, this tax is unlikely to be seriously considered if a statewide transportation funding package is approved.

Local Vehicle Registration Fee
Description: Like a local fuel tax, local jurisdictions can implement a local vehicle registration fee. This would operate similarly to the existing statewide vehicle registration fee.

Existing Application: Presently, no cities or counties in Oregon charge a local registration fee.

Potential: Same as local fuel tax.

Local Street Utility/User Fee
Description: This fee is based on the fact that streets are utilities used by citizens and businesses just like a public water or sewer system. Fees are typically assessed by usage (e.g., average number of vehicle trips per development type).

Existing Application: This fee is now being used in La Grande where it is raising approximately $70,000 dollars a year through a $4.00 monthly fee charged on residential water meter bills. The revenue generated by this fee is used for operations and maintenance of the street system.

Potential: This funding source has low potential for capital projects but could be considered to supplement local road maintenance funds.

Local Improvement District (LID)
Description: Through a local improvement district (LID), a street or other transportation improvement is built and the adjacent properties that benefit are assessed a fee to pay for the improvement.

Existing Application: The City of Union used an LID to fund new sidewalks on both sides of Main Street over six blocks in downtown in 1994. LID programs have wide application for funding new or reconstructed streets, sidewalks, water/sewer, or other public works projects. The LID method is used primarily for local or collector roads though arterials have been built using LID funds in certain jurisdictions. In Pendleton, LIDs have leveraged up to $200,000 in annual sidewalk improvements by using $25,000 set aside for use as a financial incentive to encourage property owners to construct/replace sidewalks adjacent to their property.

Potential: LIDs continue to offer a good mechanism for funding projects such as new sidewalks and street surface upgrades.

Developer Dedications of Right-of-Way and Local Street Improvements
Description: New local streets required to serve new areas of development are provided at the developer's expense in accordance with the tentative and final plan approvals granted by the City Council.

Existing Application: Current City ordinances require local streets and utilities to be provided in accordance with the adopted Union Land Use Plan and the zoning and subdivision ordinances. This includes dedication of street/utility rights-of-way and construction of streets, pedestrian/bicycle facilities, and utilities to City design standards.

Potential: Private developer street dedications are an excellent means of funding new local street/utility extensions and are most effective if guided by a local roadway network plan. This funding mechanism can apply to all new local street extensions in Union within the 20-year planning period.

Funding Plan

Any attempt to fund local improvements with federal or state funding sources requires coordination with Union County and state agencies. This transportation plan assumes any maintenance and preservation along Highway 237 (Main Street) and Highway 203 will be funded by ODOT. ODOT can also play a role in the provision of Immediate Opportunity Funds for future 10th Street or 3rd Street upgrades if such improvements benefit state facilities (Highways 237/203). Other important ODOT funding sources include pedestrian and bicycle facilities funded with local matches and other annual grant programs.

ODOT's current funding position defines the context in which the bulk of federal and state funding would apply to local projects. Barring dramatic changes in the price of fuel, significant changes in transportation policy are not expected. Findings include:

- As federal funding for new transportation construction declines, and motor vehicle fuel tax receipts are eroded by inflation, ODOT anticipates its role will shift away from project construction to preservation and maintenance of the state and federal highway system.

- ODOT estimates that only one large construction project (greater than $5 million) and five small projects ($1 million or less) will occur in ODOT Region 5 every five years.
- No major reconstruction activities along Highway 237 (Main Street) or Highway 203 are planned by ODOT.

Future funding sources within the City include the existing revenue sources indicated in the annual budget. During fiscal 1996/1997, Union allocated approximately $188,000 to its Street Fund Budget for payroll/labor, street maintenance, and materials/supplies. The local street fund accounts for about 15 percent of Union's total annual expense budget. Major capital outlays in 1996-1997 included sidewalk replacement ($51,072), street renovation ($25,000), street lighting ($18,500), chip seal ($15,000), bridge and road repairs ($11,000), dust abatement ($8,838), and other miscellaneous expenses.

Revenue for this fund is currently derived from County highway tax (state fuel tax) transfers, available cash on hand, ODOT special city allotment grants, and a local improvement district sidewalk assessment. No new construction activities are currently provided within the local street fund.

Potential new funding resources such as street utility fees, local improvement districts, and others have surfaced as possible means to generate revenue over and above traditional funding sources or pay-as-you-go general fund appropriations. The local application of these, and other funding options, are preliminarily evaluated above and have been discussed with the Transportation System Plan Technical Advisory Committee and City Council.

To implement this transportation plan, the local funding options needed most likely include:

- County/State Highway fuel tax transfer payments;
- Private developer street dedications;
- Local Improvement District(s) for street and pedestrian facilities;
- General Fund cash carryover to a street and/or pedestrian facility capital account;
- The funding plan assumes a mix of local public/private funds are available to match state bicycle-pedestrian grants for specific bicycle-pedestrian improvements; and
- Other local funding options, such as local bond levies or general fund set-asides to match state funding sources, may also be considered.

A preliminary list of potential local and state funding responsibilities for implementation of this transportation plan is provided in Table 9. The TSP capital improvement program should be coordinated with each update of the Union Capital Improvement Plan and Statewide Transportation Improvement Program.

TSP implementation includes (1) updating local street standards; (2) new access management guidelines; and (3) new plan and ordinance amendments.

This will ensure TSP implementation through coordination and development review proceedings. Adoption of this TSP by the City Council will enable Union to address existing and emerging transportation issues in an efficient and cost-effective manner.

Recommended Street Standards

Recommended roadway design standards are shown in Table 9 and typical cross-sections are shown in Figures 9A and 9B. The recommended standards utilize design requirements for base depth and materials, leveling, gradient, and overlay materials that are similar to those described in the existing roadway standards. Recommended standards also assume that curbs and gutters will be provided on arterial streets but not required on collector streets, local streets, marginal access streets, or alleys.

The recommended street standards accommodate bicycle and pedestrian travel on dedicated walkways; sidewalks along arterial and collector streets; bike lanes along arterials; and shared roadways for bicycles along collector and local streets. Sidewalks are not required on local or marginal access streets unless called for in the TSP.

Minimum standards are consistent with emergency vehicle access requirements for at least a 20-foot unobstructed right-of-way width. As such, a distinction has been made between the travel surface width and the parking strip width on a roadway. The additional width required for bicycle and sidewalk facilities, shoulder drainage utilities, and landscaping is also described in the recommended street standards.

The minimum standard right-of-way width for marginal access lanes is recommended at 40 to 50 feet, which is lower than the current minimum right-of-way width for marginal access lanes. This minimum width would only be appropriate if no on-street parking is allowed and only in cases with very limited traffic volumes and direct driveway access for no more than three to five dwelling units at build-out.

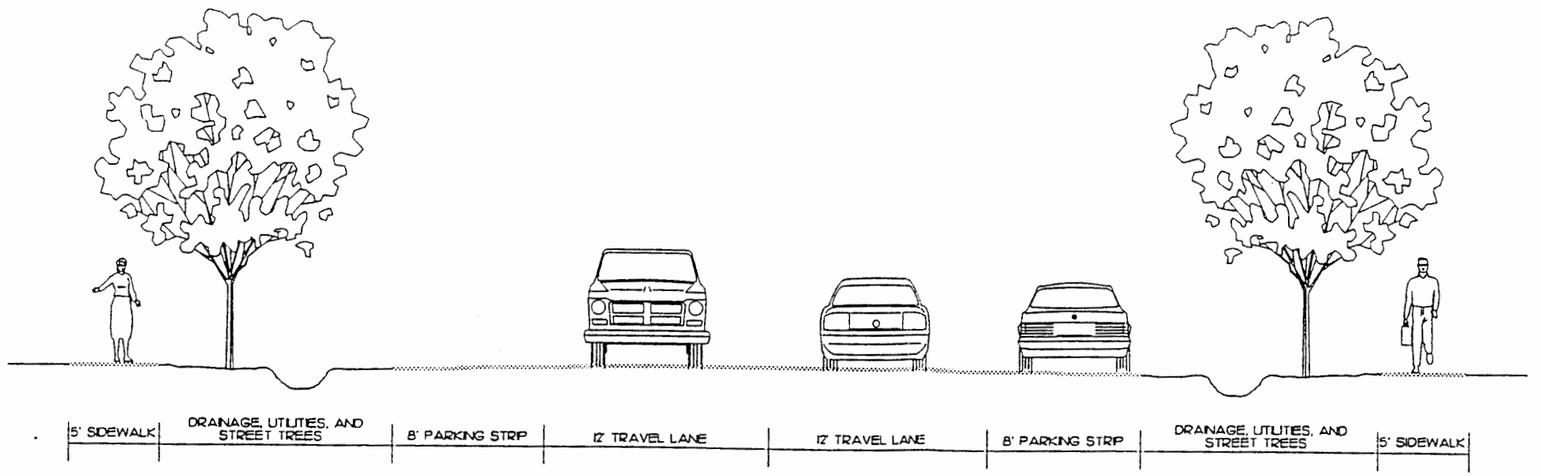
Upgrade Local Gravel Streets

The City of Union has many unpaved gravel streets within the City's Urban Growth Boundary. Please see Appendix B for an existing conditions inventory of pavement status. The City plans to upgrade all local streets in the residential grid to a chipseal pavement surface status over the next 20 years. Exceptions would be long streets with few, if any, residences such as N. First Street, N. College Street (north of Little Creek), S. Tenth Street (south of Dearborn), and the west end of Oregon Street. However, prioritization for upgrading substandard streets will depend on other transportation alternatives implemented over time, and local funding resources.

Table 9
Recommended Street Standards

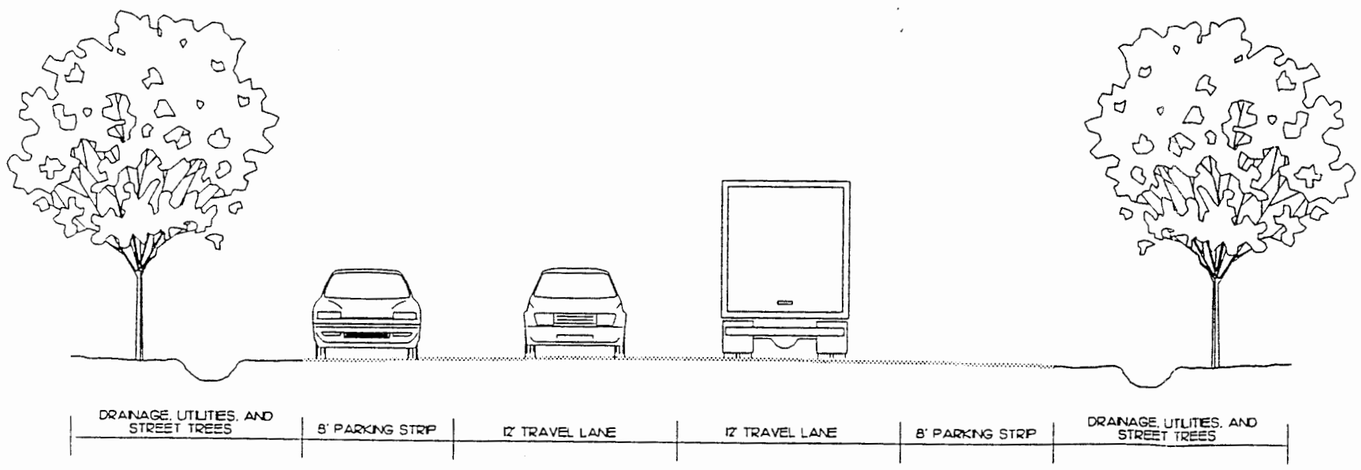
Street Classification	Travel Surface Width	Parking Strip Width	Bicycle Lane Width	Sidewalk Width	Shoulder Width (drainage, utilities, and street trees)	Total ROW Width	Posted Speed	Base		Leveling Course		Overlay Material
								Depth	Aggregate Size	Depth	Aggregate Size	
Arterial	24 ft.	8 ft.	4 ft. w/o curb 6 ft. w/curb	5 ft.	5-11 ft.	60-80 ft.	25-45 mph	8"	1 1/2-3"	4"	3/4-1 1/2"	2" asphalt-concrete pavement
Minor Collector	24 ft.	8 ft.	shared roadway	5 ft.*	5 ft.	60 ft.	25 mph	8"	1 1/2-3"	4"	3/4-1 1/2"	2" asphalt-concrete pavement
Local	24 ft.	8 ft.	shared roadway	(where required)	5-10 ft.	60 ft.	25 mph	8"	1 1/2-3"	4"	3/4-1 1/2"	2" pavement or chip seal
Marginal Access	24 ft.	0-8 ft.	None	None	5 ft.	50 ft.	15 mph	8"	1 1/2-3"	4"	3/4-1 1/2"	2" pavement or chip seal
Alleys	10-12 ft.	None	None	None	3-4 ft.	16-20 ft.	5 mph	8"	1 1/2-3"	4"	3/4-1 1/2"	2" pavement or chip seal

* For collector streets, sidewalks may be approved on one side only.
• Asphalt-concrete pavement is required for arterials and collectors.
* Chipseal is acceptable on streets not designated as arterials or collectors.



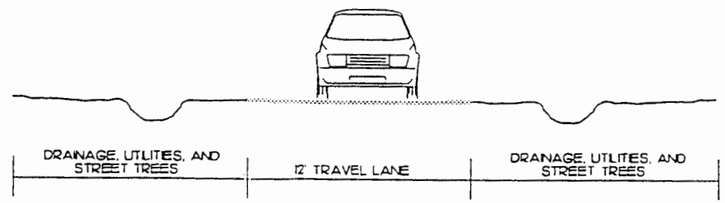
60' TOTAL ROW WIDTH

TYPICAL LOCAL STREET CROSS SECTION



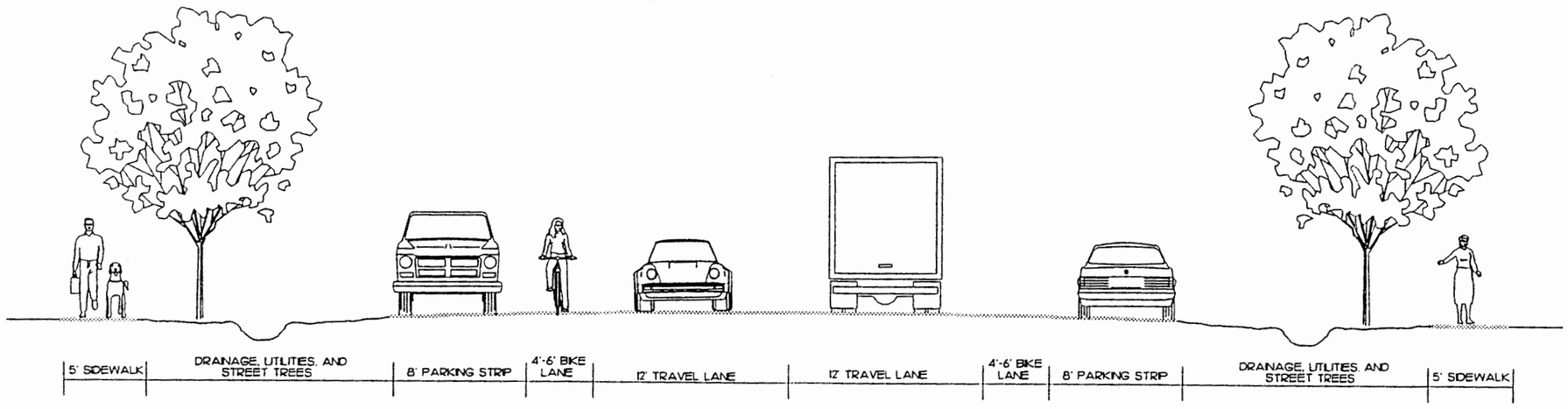
40'-50' TOTAL ROW WIDTH

TYPICAL MARGINAL ACCESS STREET CROSS SECTION



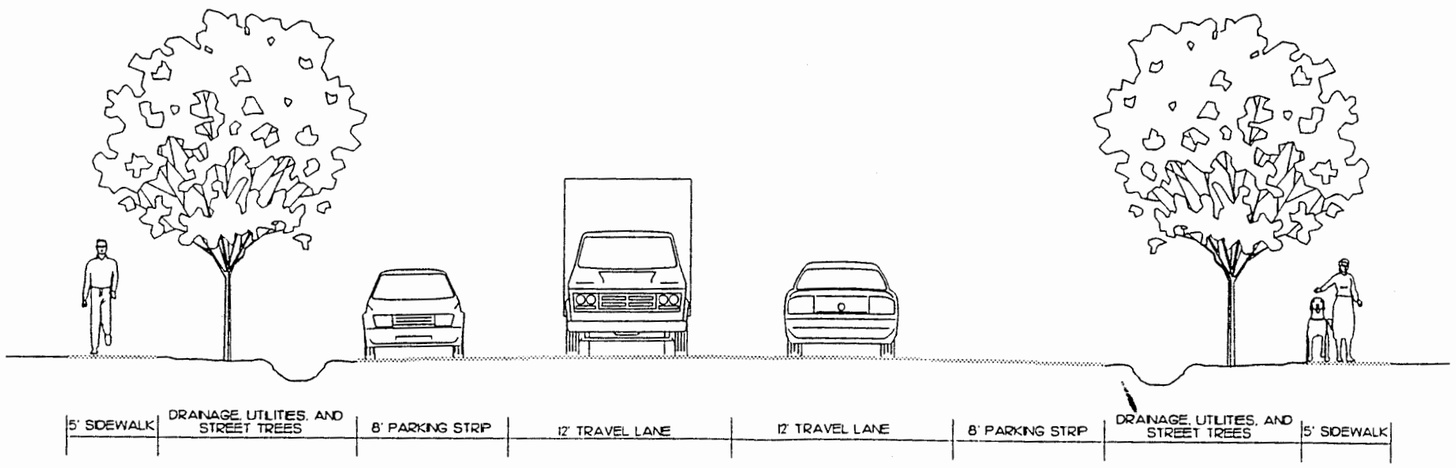
16'-20' TOTAL ROW WIDTH

TYPICAL ALLEY CROSS SECTION



60'-80' TOTAL ROW WIDTH

TYPICAL ARTERIAL STREET CROSS SECTION



60' TOTAL ROW WIDTH

TYPICAL COLLECTOR STREET CROSS SECTION

The priority given to the upgrade of existing local streets will be based on classification. A higher priority will be placed on upgrading arterials and major collectors, medium priority on minor collectors, and lowest priority on minor local streets and marginal access lanes. New local streets that are extended into undeveloped portions of the urban area shall be initially paved as project development occurs.

Access Management Standards

The Transportation System Plan for Union needs to support an access management plan for Highway 237 and Highway 203. The purpose of the plan is to establish access management categories and a management process to ensure that the plan is administered over time. An access management plan is a very important element for maintaining and preserving the transportation system. Effective access management improves transportation system safety, maintains reasonable levels of service, and reduces the need for major future transportation improvements (i.e., road widening).

Access management directly addresses safety and helps maintain or preserve transportation efficiency and scenic resources. Within urban areas, an unlimited number of driveways and other access points along an arterial or collector street can create travel delay and safety conflicts. Vehicle turning movements create conflicts with oncoming vehicles, pedestrians and bicycles. Access management is considered a more cost-effective approach then roadway widening and can be achieved incrementally over time.

This access management plan is consistent with the following documents:

- 1991 Oregon Highway Plan, June 1991
- Oregon Transportation Plan

The Oregon Highway Plan specifies access management classification standards for all state highway facilities. The Highway Plan includes ways to determine highway system needs and establishes design parameters to build and maintain quality highways and bridges in a safe, cost-effective manner.

The Highway Plan's level of importance (LOI) policy provides a system to identify each highway's level of importance in order to allow highway improvement needs and operational objectives to be prioritized throughout the state. The Highway Plan's policy provides framework for making access decisions consistent with the function and operating levels identified in the LOI policy. This policy is to be used by the Oregon Department of Transportation (ODOT) to carry out its responsibilities for managing access on state facilities under the statutes and administrative rules. It is also to be used by ODOT to guide the design of highways and coordinate with local comprehensive planning processes.

The recommended access management standards that are listed in Table 10 were developed to assist ODOT in achieving effective access management. They are to be applied to all sections of the state highway system in accordance with the procedures outlined below.

Staged Implementation — Existing local street connections to a state highway and the historical grid pattern of 200 linear feet between public streets will not be affected by spacing standards in the TSP. If there is a change in use, existing permitted driveway connections will be subject to review by the City of Union, in coordination with ODOT and property owner(s), for safety and congestion issues. If, during the review of the change in use, an existing driveway is identified to degrade safety or increase congestion, then alternative access points will be identified in accordance with TSP policies (see Table 12).

Minimum Access Standards — The access management standards described in Table 10 represent minimums for each access. More stringent levels of access management may be necessary based on specific circumstances.

Flexibility in Access Management Standards — Local governments, in cooperation with ODOT, may enact standards to achieve, over time, the particular function of the level of importance classification.

New vs. Existing Access to Highway Segments — While the access management policy tends to focus on growth areas, it is also meant to encourage retrofitting problem areas on existing highway sections. The ability to retrofit problem areas is accomplished through cooperation among ODOT, local governments, and private property owners. All existing access points to a state highway that are not public use streets, such as driveways and curb cuts, are subject to review by the City of Union, in coordination with ODOT and property owner(s) at the time of development or redevelopment. The Local Street Plan identifies existing driveways and curb cuts that have a high hazard risk with public streets that should be replaced at the time of redevelopment. New local street connections to a state highway within the urban area will be based on the historical grid pattern of 200 linear feet. New collector street connections to a state highway within the urbanizable area will be based on the Local Street Plan in the TSP.

Conditional Access Permits — A permit may be issued for a single connection to a property that cannot be accessed in a manner that is consistent with the spacing standards and either has no reasonable access or cannot obtain reasonable alternative access to the public road system. The permit should carry a condition that the access may be closed at such time that reasonable access becomes available to a local public street. In addition, approval of a conditional permit might require ODOT-approved turning movement design standards to ensure safety and managed access. Under special circumstances, ODOT may be required to purchase property in order to prevent safety conflicts.

Single Ownership Properties — Properties with single ownership fronting state highway systems may not be permitted the total number of highway connections possible based on the spacing standards. The total number of connections permitted may be the minimum necessary to provide reasonable access on the basis of operational, safety, and functional considerations for the highway.

Safe, Efficient, and Cost Effective Design — The connections permitted in the access management policy shall be designed and managed in a manner that is consistent with the function and purpose of the Oregon Highway Plan policies and other policies that apply to the highway corridor.

Below Standard Access Spacing — Driveway and road approach spacing less than the distances shown on Table 10 and other than those identified in the Local Street Plan will only be considered where safety and operational efficiencies can be retained or improved based on clear traffic analysis evidence. The traffic analysis must include compliance with criteria for progression speed, efficiency of signal progression, traffic volumes, and cycle length passing for the roadway classification. Such assessments must be made for long-term future performance.

Access Management Categories

The Oregon Highway Plan identifies six highway categories that range in access treatment from full control (freeways) in Category 1 to partial control (district highways) in Category 6. Oregon Highways 237 and 203 are currently designated as highways of District LOI.

The LOI policy is intended to generally correspond to the access management category and its corresponding standards. Access management Category 6 should be considered for the urbanizable portions of Highway 237 and Highway 203.

Table 10 Access Management Standards
For Oregon Highways 237 and 203 in the Union Urbanizable Area

Category	Access Treatment	LOI (1)	Urban/ Rural	Intersection				Signal Spacing	Median Control
				Public Road (3)		Private Drive			
				Type (2)	Spacing	Type	Spacing		
6	Partial Control	District	U	At grade	500' or LSP	L/R Turns	150' or LSP	1/4 Mi.	None

Source: Oregon Highway Plan, 1991.
Notes:

1) The Level of Importance (LOI) to which the Access Category will generally correspond.
2) The basic intersection design options are as listed. The decision on design should be based on function of the highway, traffic engineering, cost-effectiveness, and the need to protect the highway.
3) LSP-Local Street Plan.

Access Management Category 6 (applies to Highway 237 and Highway 203)
These highway segments provide for efficient slower to medium speed and low to high volume traffic movements on intra-city and inter-community routes. This category is assigned only where there is little value in providing for high speed travel. Providing for reasonable and safe access to abutting property is the major purpose for this access category.

Access management category 6 can achieve the access management standards over time using the following techniques:

- Restricting spacing between driveways and roads approaching the state highway based upon roadway function, safety, and user criteria;
- Encouraging the shared use of access points between adjacent properties;
- Encouraging access to the state highway system via public local streets;
- Constructing secondary roadways according to spacing standards to separate local traffic from through traffic;
- Providing service driveways and appropriate parking to prevent spillover of vehicles onto adjoining streets;
- Providing acceleration/deceleration lanes and right turn only lanes in compliance with ODOT design standards;
- Offsetting driveways and adequate spacing of driveways to produce "T" intersections to minimize the number of safety conflict points between traffic using the driveways and through traffic; and
- Reducing the number of access points to the highway by encouraging access enhancements and curb cuts along arterial fronting properties. Where necessary, establish objectives and strategies for reducing access points in areas with safety issues.

Access Management Plan Implementation

Access management assignments will be consistent with the terms and standards outlined in the Oregon Highway Plan, and with the classification of the highway existing conditions and adopted Local Street Plan. Determinations will be based on projected cumulative effects of highway access considering future traffic volumes and the amounts of development authorized by the local comprehensive plan. Other factors will also be considered in ODOT's review of road approach permits, project design, and other requests for access to/from the state highway system:

- Existing and proposed roadside development patterns;
- Regional and local transportation system plans, comprehensive plans, and special traffic refinement plans;
- The potential for increasing the use of local roads to provide property access and local circulation;
- Topography, drainage, or other land characteristics; and
- Existing access agreements between ODOT and local jurisdictions and other access operational aspects.

The Oregon Department of Transportation will follow the procedures established in the state agency coordination program for coordinating facility planning to ensure that access management

categories are assigned and attained in a manner comparable with affected local comprehensive plans.

Ordinance Amendments

This section outlines Transportation Planning Rule (TPR) requirements, Union's current code structure, and recommends local ordinance amendments to comply with the TPR.

Oregon Transportation Planning Rule Requirements

The TPR requires counties with populations of 25,000 or more to adopt Transportation System Plans (TSPs) with land use ordinances and facility plans to meet overall transportation needs. A comprehensive excerpt of TPR components applicable to small jurisdictions is provided in Appendix E.

Applicable Local Plans and Codes

Portions of existing comprehensive plans or ordinances, or combinations of plans that meet all or some of the requirements of the TPR may be incorporated by reference into a local transportation system plan.

Road Network and Connectivity

The TSP shall include a road plan for a network of arterials and collectors, and standards for the layout of local streets and other important non-collector street connections. The standards for the layout of local streets shall address: extension of existing streets; connection to existing or planned streets, including arterials and collectors; and connection to neighborhood destinations.

The TSP must also include a bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area.

Land Use Regulations

The TSP must include amendments to land use regulations to implement the TPR. Exceptions to code regulated uses include:

- Minor transportation facility improvements with no significant impact on land use;
- Operation, maintenance, and repair of existing transportation facilities identified in the transportation system plan;
- Dedication of right-of-way, authorization, and construction of facilities and improvements;
- Farm and forest uses permitted outright; and
- Changes in the frequency of transit, rail, and airport services.

The TPR requires adoption of land use or subdivision ordinance regulations, including:

- Access control measures for state highway facilities;
- Standards to protect the future operation of state highway facilities;
- Measures to protect public use airports;
- A process for coordinated review of land use actions with ODOT;
- A process to apply conditions to development approvals;

- Regulations to provide notice to public agencies;
- Land use applications that require public hearings;
- Subdivision and partition applications;
- Other applications that affect private access to roads; and
- Regulations ensuring that amendments to land use designations and densities are consistent with the function, capacity, and facility levels of service identified in the TSP.

Specific ordinance regulations must require:

- Bicycle parking facilities as part of new multifamily residential development;
- On-site facilities to accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to adjacent residential areas;
- Sidewalks along arterials and collectors in urban areas, except for freeways;
- Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes of the TPR.

Local governments must establish their own standards or criteria for providing streets and accessways. Such measures may include standards for street or accessway spacing, while avoiding excessive out-of-direction travel. Streets and accessways need not be required where one or more of the following conditions exist:

- Physical or topographic conditions make a street or accessway connection impracticable;
- Buildings or other existing development on adjacent lands physically preclude a connection;
- Where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements; or
- Where off-site road improvements are otherwise required as a condition of development approval.

Local governments must establish standards for local streets and accessways that minimize pavement width and total right-of-way. Local street standards adopted to meet this requirement need not be adopted as land use regulations.

The TPR defines safe and convenient access for bicycle and pedestrian routes; hazard-free facilities and improvements; reasonably direct routes of travel; and the TPR meets travel needs of cyclists and pedestrians considering destination and/or trip length.

The deadline for preparation of local TSPs and implementing measures was May 8, 1997. Current compliance for Union is pending adoption of this TSP.

Union's Current Code Structure

The City of Union currently manages land use and transportation through four plans and ordinances, including: 1) Land Use (Comprehensive) Plan, 1984; 2) Zoning Ordinance, 1979; 3) Subdivision Ordinance, 1990; and 4) Bicycle-Pedestrian Plan, 1995.

The Bicycle-Pedestrian Plan brings Union into compliance with the TPR with respect to non-motorized connectivity and Bicycle-Pedestrian Plan provisions. Therefore, the following ordinance recommendations include amendments to the local comprehensive plan and implementing ordinances that are not addressed by the Bicycle-Pedestrian Plan to ensure TPR compliance. The TPR was amended in April, 1995 to require local street standards as part of the TSP. In light of this amendment and the recently adopted Union Bicycle-Pedestrian Plan, the following ordinance amendments focus on development of a roadway network plan and associated local street standards.

Specific Ordinance Amendments

The following tables describe specific changes to Union's Comprehensive Plan and implementing ordinances under the following categories:

- Agency Coordination and Review (Table 11);
- Access Management (Table 12);
- Protection of Transportation Facilities (Table 13);
- Implementation (Table 14);
- Bicycles and Pedestrians (Table 15);
- Permitted and Conditional Transportation Improvements (Table 16); and
- Street Standards (Table 17).

Implementation Plan

The Transportation Planning Rule (TPR) sets forth requirements to ensure that local transportation system plans are implemented at the local level. To comply with ORS 197.015 Statewide Planning Goal 12: Transportation, and OAR Chapter 660, Division 12, The Transportation Planning Rule (as amended), the following steps must be taken, as outlined in ORS 660-12-045.

Step 1. Adopt Final Transportation System Plan

Following public review and comment on the draft TSP and with input provided by the City Council, a final TSP shall be created for subsequent adoption by the City. Implementing land use ordinances may be extracted from the final TSP and adopted at a later date during steps two and three.

Note: Steps 2-6 will not be needed if these items are incorporated into the final TSP and adopted in Step 1.

Table 11
City of Union
TPR Code Compliance

Coordination and Review

Transportation Planning Rule Requirements	*Current Code Compliance Yes/No*	*Current Union Plan/Code Provision(s)*	*Recommended Plan/Code Language*	*Additional Code Consideration(s)*
OAR 660-12-045(2) Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics: 660-12-045(2)(d) coordinated review of land use decisions potentially affecting transportation facilities. 660-12-045(2)(f) regulations to provide notice to public agencies providing transportation facilities and services of land use applications that potentially affect transportation facilities.	NO	Goal 12 of the Land Use Plan, Recommendation 5 suggests that "the city cooperate with other local, state, and federal agencies to help provide an efficient and economical transportation system." The Subdivision Ordinance Section VI(3) contains a requirement that "a tentative plan and at least ten copies for distribution to other departments and agencies shall be submitted..."	*Proposed new ordinance language given in* [**bold**] *text.* **Land Use Plan** Move Goal 12 Recommendation 5 to Policy 9, and amend as follows: "The city **will** cooperate **and notify all appropriate** local, state, and federal agencies **and transportation interest groups when a land use application is submitted and whether application potentially impacts a transportation facility. Transportation interest groups must request notice in writing and may be subject to a fee. Notification will help to identify agency standards, and** provide an efficient and economical transportation system." **Zoning Ordinance** Amend Section 6.035 as follows: "6.035 Notice to the Oregon Departments of Land Conservation and Development (DLCD) **and the Department of Transportation (ODOT)**. A proposal to amend the Land Use Plan, Zoning Ordinance, Partition and Subdivision Ordinance or to change or adopt a new land use regulation shall be submitted to the Director of the **DLCD and the ODOT District Manager** at least 45 days before the final City Council hearing on adoption. The proposed submittal shall contain...." **Subdivision Ordinance** Add subsection to VI (3.) Tentative Plan as follows: **A) "All plans that include road and street improvements shall provide the nature and findings regarding the desired improvement in a notice to each transportation facility provider.** **1. Notice will be provided to ODOT regarding any land use action on or adjacent to a State facility** **2. All actions potentially affecting a jurisdiction's road/street should require notice to that jurisdiction's public works department.** 3. **Provide notice to providers of public transit and special interest transportation groups such as railroad, bicyclists, pedestrians, and the disabled information on any roadway or other transportation project. Transportation interest groups must request notice in writing and may be subject to a fee."**	

Table 12
City of Union
TPR Code Compliance

Access Management

Transportation Planning Rule Requirements	Current Code Compliance Yes/No	Current Union Plan/Code Provision(s)	Recommended Plan/Code Language
OAR 660-12-045(2) Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics: 660-12-045(2)(a) access management and control	NO	Goal 12 of the Land Use Plan, Policy 3 refers to maintaining road or street rights of way, and Policy 4 promoted connectivity, but the plan does not contain policies that specify access management as a City transportation goal. The Zoning Ordinance does not contain language that references or ensures access management related policies. The Subdivision Ordinance does have policy language that serves to protect the existing transportation system and encourages connectivity and access between land uses. However, the ordinance does not specify access management standards.	*Proposed new ordinance language given in* [**bold**] *text.* **Land Use Plan** Goal 12, Policies: Revise Policy 3: **3. The function of existing and planned roadways as identified in the adopted Transportation System Plan shall be protected through the application of appropriate access control measures. The function of existing or planned roadways or roadway corridors shall be protected through the application of appropriate land use regulations; for example, new development in the urbanizable area shall conform to the Local Street Plan. The potential to establish or maintain accessways, paths, or trails shall be considered prior to the vacation of any public easement or right-of-way.** Road or street rights-of-way will not generally be vacated but will be considered for other possible public uses. **Right-of-way for planned transportation facilities shall be preserved through all practical means. This will include exactions, voluntary dedication, setbacks, or other appropriate means.** **Zoning Ordinance** Add to Section 1.030, Definitions: **60) Urban TSP Area. The platted and developed portions within Union's Urban Growth Boundary where existing driveways onto the state highway system are conforming features until redevelopment, at which time the driveway will be evaluated by the City of Union and ODOT in order to preserve safety.** **61) Urbanizable TSP Area. The sparsely developed portion of land between the urban area and the Urban Growth Boundary where new public streets accessing the state highway system are based on the adopted Local Street Plan and new driveways accessing the state highway system are at least 150 feet apart.** Add to Section 3.000, Conditions applying to all zones: **If any parcel of land abuts Oregon State Highway 203 and/or 237 then the applicant shall notify ODOT prior to submitting any land use application. The purpose for this contact is to involve ODOT at the beginning of the application process so that the property owner/developer has the benefit of ODOT comments prior to submitting a site plan, conditional use application, or tentative plat map. For proposed Urban TSP Area development or redevelopment of properties accessing a state highway, the developer/owner shall, prior to making application, notify and coordinate with the City of Union and the ODOT District Manager to ensure safety of the access and potentially combine driveways if safety is compromised. For proposed Urbanizable TSP Area development or redevelopment of properties accessing a state highway, new public streets shall be based on the adopted Local Street Plan and new driveways shall be at least 150 feet apart. Land development affecting State Highway 203 and/or 237 will address safety, capacity, functional classification, and level of service. Access management policies for the City of Union set forth in the Transportation System Plan will be observed.** **Subdivision Ordinance** Add to Section II, Purposes, "*In pursuit of these purposes....*" to read: **8. Land development with access to State Highway 203 and/or 237 will address safety, capacity, functional classification, and level of service.** Add to Section III, Definitions: **32) Urban TSP Area. The platted and developed portions within Union's Urban Growth Boundary where existing driveways onto the state highway system are conforming features until redevelopment, at which time the driveway will be evaluated by the City of Union and ODOT in order to preserve safety.**

			33) Urbanizable TSP Area. The sparsely developed portion of land between the urban area and the Urban Growth Boundary where new public streets accessing the state highway system are based on the adopted Local Street Plan and new driveways accessing the state highway system are at least 150 feet apart. Add to Section VI, Application Procedure, (1): 1. Preliminary Review. Prior to creating any new lots or parcels the developer should obtain the checklist for partition or subdivision requirements, and discuss his intent with the Planning Administrator. It is desirable to prepare sketch maps, and assemble other information as needed to discuss the proposal. **If any parcel of land abuts Oregon State Highway 203 and/or 237 then the applicant shall notify and coordinate with the City of Union and the ODOT District Manager prior to submitting any land use application. The purpose for this contact is to involve ODOT at the beginning of the application process so that the property owner/developer has the benefit of ODOT comments prior to submitting a site plan, conditional use application, or tentative plat map.** Add to Section VIII (7)(A): Proposed street designations, e.g., arterial, collector, etc., and approximate center line profiles with extensions for a reasonable distance beyond the limits of the proposed partition or subdivision showing the approximate grade of streets and the nature and extent of street construction. **If direct access to a state highway is proposed, access must be provided in a manner consistent with the access management provisions and the Local Street Plan in the Transportation System Plan.** Add to Section VIII (9)(C): **4. Each lot or parcel shall abut a public or private street for the required minimum lot or parcel frontage.** **5. If any lot or parcel abuts a street right-of-way that does not conform to the design specifications of this Code, the owner may be required to dedicate from one-half to all of the right-of-way width necessary to meet minimum design requirements.** Add the following subsections to Section XI: **(S) Joint and Cross Access** **1. Adjacent commercial or office properties classified as major traffic generators (i.e., shopping plazas, office parks), shall provide a cross access drive and pedestrian access to allow circulation between sites.** **2. Shared parking areas shall be permitted a reduction in required parking spaces if peak demands do not occur at the same time periods.** **(T) Access Connection and Driveway Design** **1. Driveway width shall meet the following guidelines:** **a) If the driveway is a one way in or one way out drive, then the driveway shall be a minimum width of 10 feet and shall have appropriate signage designating the driveway as a one way connection.** **b) For two-way access, each lane shall have a minimum width of 10 feet and a maximum of four lanes shall be allowed. Whenever more than two lanes are proposed, a median should be considered to divide the entrance and exit lanes.** **2. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers shall be avoided due to the potential for vehicular weaving conflicts.** **3. The length of driveways shall be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation.** **(U) Existing Access Features** **1. Permitted driveway connections and curb cuts on a state highway in place as of adoption of the TSP that do not conform with the standards of the Transportation System Plan shall be designated as conforming features and will be reconsidered only if there is a change in use. At the time of redevelopment the City of Union, in coordination with ODOT and property owner(s) will evaluate the existing access for safety. If safety is compromised by the existing driveway location or by the change in use, then priority shall be placed on providing access to property abutting a state highway from City streets, combining driveways, or providing an access point in the middle of the block.** 2. **All existing local street connections to a state highway and the historical grid pattern of 200 linear feet shall not be affected by the spacing standards in the Transportation System Plan.**

			(V) New Access Features 1. New City street connections to a state highway within the urbanizable portion of town shall be based on the existing street grid, Local Street Plan and TSP policies. 2. Each new urban area driveway access to a state highway will be individually reviewed by the City of Union with local notice provided to ODOT. New urbanizable area driveway connections to a state highway shall be at least 150 feet apart. The highest priority shall be placed on providing access to property abutting a state highway from City streets, combining driveways, or providing an access point in the middle of the block. (W) Shared Access Proposed subdivisions with frontage on a state highway system shall be designed to share access points from the highway. If access from a City street is possible, then access should not be allowed onto a state highway. If access from a City street becomes available, then conversion to that access in encouraged, along with closing the state highway access. (X) Connectivity 1. The street system of a proposed subdivision shall be designed to coordinate with existing, proposed, and planned streets outside of the subdivision as provided in this section. 2. Wherever a proposed development abuts unplatted land or a future development phase of the same development, street stubs shall be dedicated to provide access to abutting properties or to logically extend the street system into the surrounding area. All street stubs shall be dedicated with a temporary turn-around unless specifically exempted by the City of Union, and the restoration and extension of the street shall be the responsibility of any future developer of the abutting land. 3. Minor collector and local residential access streets shall connect with surrounding streets to permit the convenient movement of traffic between residential neighborhoods or facilitate emergency access and evacuation. Connections shall be designed to avoid or minimize through traffic on local streets. Appropriate design and traffic control such as four-way stops and traffic calming measures are the preferred means of discouraging through traffic.

Table 13
City of Union
TPR Code Compliance

Protection of Transportation Facilities

Transportation Planning Rule Requirements	Current Code Compliance Yes/No	Current Union Plan/Code Provision(s)	*Recommended Plan/Code Language*	Additional Code Consideration(s)
OAR 660-12-045(2) Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics: 660-12-045(2)(e) conditions to minimize development impacts on transportation facilities. 660-12-045(2)(g) regulations assuring that amendments to land use designations, densities, and design standards are consistent with the TSP.	NO	The Land Use Plan does not contain policy language or regulations to minimize development impacts on the transportation system. The Zoning Ordinance does not contain language that requires an amendment to the Land Use Plan or Zoning Ordinance to be reviewed in terms of the potential for impact on the transportation system. The Subdivision Ordinance Section VI(1) contains provisions that require a land use application to be submitted for technical review, to determine compliance with existing ordinances and regulations. However, the Ordinance does not set forth specific review criteria for transportation projects.	**Land Use Plan** Add a Goal 12, Policy 8: **"Land use proposals be reviewed with criteria that minimize impacts which have an adverse effect on safety or mobility on transportation facilities."** **Zoning Ordinance** Add Section 6.040(4): **"All Land Use Plan amendments, Zone District changes, and development proposals shall conform with the adopted Transportation System Plan.** **Subdivision Ordinance** Add to Section II Purposes, sub section (1) under "factors" **"Compatible land use plan and zoning provisions, and compliance with the adopted Transportation System Plan."** Add Section VI (1)(G): **"Consistency with the Transportation System Plan."** Add a Section VIII (7)(G): **"Submit a traffic impact study when the proposal affects a transportation facility; if it: 1) changes the functional classification of an existing or planned transportation facility; 2) changes standards implementing a functional classification system; 3) allows types or levels of land use that would result in levels of travel or access that are inconsistent with the functional classification or a transportation facility; or 4) would reduce the level of service of the facility below the minimum acceptable level identified in the Transportation System Plan. The scope of the required traffic study shall consider:** A) **That the proposed use shall impose an undue burden on the public transportation system. For developments that are likely to generate more than 400 average daily motor vehicle trips (ADTs), the applicant shall provide adequate information, such as a traffic impact study or traffic counts, to demonstrate the level of impact to the surrounding street system. Standards by which to gauge 400 ADT include: 10 trips per day per single family household which would equal 40 homes; 5 trips per day per apartment which would equal a complex of 80 apartments; and 30 trips per day per 1,000 square feet of gross floor area which would equal a supermarket or other retail development. The developer shall be required to mitigate adverse impacts attributable to the project.** B) **That the determination of impact or effect, and the scope of the impact study, should be coordinated with the provider of the affected transportation facility."** Amend Section VIII (9)(C)(1) to read: "The streets and roads are laid out so as to conform **with the standards set forth in Section XI and the Transportation System Plan."**	

Table 14
City of Union
TPR Code Compliance

Implementation

Transportation Planning Rule Requirements	Current Code Compliance Yes/No	Current Union Plan/Code Provision(s)	Recommended Plan/Code Language	Additional Code Consideration(s)
OAR 660-12-045(1) Amend land use regulations to implement TSP	NO	The 1984 Land Use Plan recommends that the city adopt a Transportation Plan to guide development of the transportation system, but does not contemplate implementation of the 1991 Transportation Planning Rule which requires local Transportation System Plans.	*Proposed new ordinance language given in* [**bold**] *text.* **Land Use Plan** Move Goal 12 Background section 9, to policy section and renumber as Policy 6: "Conform with local and regional comprehensive land use plans — Street planning decisions will be in accord with the area Land Use Plan, Zoning Maps, **and the Union Transportation System Plan (TSP). The Future Roadway Network Plan within the Transportation System Plan identifies conceptual connections for future streets. Final street alignments will be refined through the development review process.** The Union Land Use Plan **and Transportation System Plan** have been prepared in cooperation with Union County." **Zoning Ordinance** Section (3.00) . Add **Section 3.001"Transportation Improvements"** to Conditions applying to all zones: **1. "Changes in the specific alignment of proposed public road and highway projects shall be permitted without plan amendment if the new alignment falls within a transportation corridor identified in the Transportation System Plan.** **2. Transportation projects involving the operation, maintenance, repair, and preservation of existing facilities that are consistent with the Transportation System Plan, the classification of that roadway and approved road standards shall be allowed, except where specifically regulated (i.e., within a floodplain).** **3. Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, where the improvements are consistent with the Transportation System Plan, the classification of the roadway and approved road standards shall be allowed.** **4. For State projects that require an Environmental Impact Study (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review, if local review is required.**	Consider policy language in the Land Use Plan which establishes the need to seek out transportation system funding sources.

Table 15
City of Union
TPR Code Compliance

Bicycles and Pedestrians

Transportation Planning Rule Requirements	Current Code Compliance Yes/No	Current Union Plan/Code Provision(s)	Recommended Plan/Code Language	**Additional Code Consideration(s)**
OAR 660-12-045(3) Adopt land use or subdivision regulations for urban areas and rural communities to provide safe and convenient pedestrian and bicycle circulation and bicycle parking, and to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel.	NO	The Bicycle/Pedestrian Plan provides many specific bicycle and pedestrian planning guidelines and standards that implement the TPR. The Land Use Plan does not contain policies or recommendations that encourage bicycle and pedestrian system retainment or development. The Zoning Ordinance does not contain language that specifically requires new development to provide bicycle and pedestrian system improvements. The Subdivision Ordinance Section XI(10) contains suggestive language that allows the Commission to require provision of bicycle and pedestrian improvements, but no specific policy(s) or guideline(s) to direct this type of system improvement.	*Proposed new ordinance language given in* [**bold**] *text.* **Land Use Plan, Goal 12** Add a Policy 10: **" It is the policy of the city to develop a network of streets, accessways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within the community."** **Zoning Ordinance** Add a Definition to Section 1.030 to read: **"Traffic Circulation. A general term denoting provisions to accommodate or encourage all modes of travel and movement which include but are not limited to: motor vehicle, pedestrian, and bicycle.** **Subdivision Ordinance** Amend Section XI (10) to read: "Sidewalk and Bicycle Trail Improvements. Curbs and sidewalk improvements **will** be required by the Commission and Council to be provided in a design and location consistent with **the Transportation System Plan**. These improvements may be considered by the Commission to meet park and recreation area requirements. Add a Section IX (1)(K): **"The location and design of all pedestrian and bicycle facilities, including access corridors."** Add a Policy to Section VIII (7)(G) to read: **"A plan for bicycle and pedestrian facilities and improvements within the subdivision, including accessways as necessary to provide more direct connections through the subdivision. The tentative plan shall demonstrate how the subdivision's internal pedestrian and bikeway system provides safe and convenient connections to the surrounding transportation system."**	

Table 16
City of Union
TPR Code Compliance

Permitted and Conditional Transportation Improvements

Transportation Planning Rule Requirements	Current Code Compliance Yes/No	Current Union Plan/Code Provision(s)	Recommended Plan/Code Language	Additional Code Consideration(s)
OAR 660-12-045(1)(a) Identify which transportation facilities, services, and improvements are allowed outright, conditionally permitted, and permitted through other procedures	NO	The Zoning Ordinance does not indicate what types of site/zone specific transportation improvements or standards are allowed outright, or are conditionally allowed to conform with and implement the TSP.	*Proposed new ordinance language given in* [**bold**] *text.* **Land Use Plan** Goal 12, Policies section: Add a policy 7: **"A list of allowed, conditionally allowed, and permitted transportation system improvements will be detailed in the Zoning Ordinance to implement the TSP."** **Zoning Ordinance** Add a new Section: **3.010 Standards for Transportation Projects** **3.012 Uses Permitted Outright** **A. Normal operation, maintenance, repair, and preservation activities associated with transportation facilities.** **B. Installation of culverts, pathways, fencing, guardrails, lighting, and similar types of improvements that take place within the existing right-of-way.** **C. Projects specifically identified in the Transportation System Plan as not requiring further land use regulation.** **D. Landscaping as part of a transportation facility.** **E. Emergency measures as necessary for the safety and protection of property.** **F. Acquisition of right-of-way for public roads, highways, and other transportation projects identified in the Transportation System Plan are permitted outright, except for those that are located in exclusive farm use or forest zones."** **3.014 Conditional Uses Permitted** **A. Construction, reconstruction, or widening of highways, roads, bridges, or other transportation projects that are: (1) not specifically identified in the Transportation System Plan or (2) not designed and constructed as part of a subdivision or planned development subject to site plan and/or conditional use review, shall comply with the Transportation System Plan and applicable standards, ands shall address the following criteria. For State projects that require an EIS or EA, the draft EIS or EA shall be reviewed and used as the basis for findings to comply with the following criteria:** **1. The project is designed to be compatible with existing land use and social patterns, including noise generation, safety, and zoning.** **2. The project is designed to minimize avoidable environmental impacts, to identified wetlands, wildlife habitat, air and water quality, and cultural resources.** **3. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.** **4. The project includes provision for bicycle and pedestrian circulation as consistent with the comprehensive plan and other requirements of this ordinance.** **B. Construction of rest areas, weigh stations, and temporary storage and processing sites.** **C. If review under this Section indicates that the use or activity is inconsistent with the Transportation System Plan, the procedure for a plan amendment, including any necessary goal exceptions, shall be undertaken prior to or in conjunction with the conditional permit review."**	

Table 17
City of Union
TPR Code Compliance

Street Standards

Transportation Planning Rule Requirements	Current Code Compliance Yes/No	Current Union Plan/Code Provision(s)	Recommended Plan/Code Language	Additional Code Consideration(s)
OAR 660-12-045(7) Establish street standards that minimize pavement width and total right-of-way.	YES	The Subdivision Ordinance and Bicycle/Pedestrian Plan contain street standards, language, and guidelines.	*Proposed new ordinance language given in* [**bold**] *text.* **Land Use Plan** Add a Policy 11: **"All transportation facilities will conform with the Transportation System Plan street standards."** **Zoning Ordinance** Add a Policy 3.015 to read: **"All transportation facilities will conform with the Transportation System Plan city street standards."** (See Table 9 and Figure 9) **Subdivision Ordinance** Amend Section XI (1)(H) as follows: **"Incorporate Table 9, Street Standards into the Union Subdivision Ordinance by reference to the Transportation System Plan for dimensional street standards for arterial, collector, local and marginal access streets."** Add a provision under Section XI (1)(H)(3) to read: **"Marginal Access streets may be permitted for 2 to 5 dwellings, only where local street connectivity is not practical due to topographic constraints or existing development patterns preclude a through route extension."**	

Step 2. Amend City Land Use Regulations

In general, Union's existing land use plan and ordinances and Bicycle-Pedestrian Plan contain TPR-supportive policies and regulations. However, some new policies and amendments are required to support transportation-efficient development. The City, in conjunction with Union County, should review and update its Comprehensive Plan and Land Use Ordinance to comply with the TPR. The prior tables outline areas of TPR compliance and adequacy of the plan and ordinances in meeting the rule.

The prior tables are designed to give the City detailed direction for the required code update and should be used by the City to formulate specific land use regulation language. To assure appropriate land use review standards, the City will need to conduct a public hearing process and customize new local regulations that work for Union.

The TPR outlines the following possible exceptions for certain activities that will not necessarily be subject to new land use regulations:

- Operation, maintenance, and repair of existing transportation facilities identified in the Transportation System Plan;
- Dedication of right-of-way, and construction of facilities and improvements that are consistent with clear and objective dimensional standards;
- Resource Uses (i.e., forest and active farming) permitted outright under ORS 215.213(1)(m) through (p) and ORS 215.283(1)(k) through (n); and
- Changes in the frequency of transit, rail, and airport services.

Step 3. Adopt Land Use Regulations that Protect Transportation Facilities

The TPR requires that land use and subdivision regulations be consistent with federal and state requirements in order to protect transportation facilities for their identified function. Potential ordinance language has been developed in this plan that address the following TPR-required regulations:

- Access control measures;
- Standards to protect future operation of roads, transit ways, and corridors;
- ODOT notification and coordinated review of land uses that may impact transportation facilities;
- A process for applying conditions to proposals in order to minimize impacts to transportation facilities; and
- Regulations to ensure that changes to codes, densities, and design standards are consistent with the functions, capacities, and levels of service for those facilities identified within the Transportation System Plan.

Step 4. Encourage Use of Alternative Modes of Transportation

The TPR requires that new development standards be adopted to encourage bicycle and pedestrian travel. The existing Bicycle-Pedestrian Plan satisfies the requirements of the TPR for the following elements:

- Bicycle parking facilities for new multi-family residences of four or more units;

- Convenient bicycle and pedestrian access from shopping, planned developments, subdivisions, and industrial areas to adjacent neighborhoods;
- Sidewalks along arterial and collector streets, except for freeways;
- Bicycle and pedestrian programs to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas; and
- Ensure more direct, convenient, and safe bicycle and pedestrian access (i.e. walkways between cul-de-sacs, walkways between buildings, and direct access between adjacent uses).

Step 5. Adopt Local Roadway Network Plan

Local governments must develop their own standards for the creation of streets and accessways that are consistent with TPR objectives. Standards may control the spacing of streets or accessways and may limit excessive out-of-direction travel. This Transportation System Plan provides recommended ordinance language that will assist the City in refining local street standards and identifying local roadway networks. Streets and accessways need not be required under one of the following conditions:

- Physical or topographic conditions make a street or accessway impracticable;
- Redevelopment to accommodate a street or accessway now or in the future is precluded by existing buildings or other development;
- Where the street or accessway would violate the provisions of an easement, lease, covenant, restriction or other agreement existing as of May 1, 1995 which precludes the street or accessway connection; and
- Where conditions of development approval require off-site improvements, the improvements shall include facilities that accommodate pedestrian and bicycle travel.

The recommended roadway standards identify measures, such as access lane standards, that minimize street and accessway pavement widths and total rights-of-way.

Step 6. Identify Local Funding Options

The Transportation System Plan identifies local transportation facility improvements, costs, and general timing/priorities over the 20-year planning horizon. With the level of federal, state, and local funding for transportation improvements decreasing, local governments must strive to create a cost-efficient transportation system. Compliance with the TPR and implementation of the Transportation System Plan is intended to result in an affordable and efficient transportation network. The City of Union will need to work closely with Union County to establish local revenue sources to maintain and enhance the transportation network within the urban area. This Transportation System Plan identifies potential funding options to maintain the transportation network as the City and County develop.

Step 7. Monitor and Measure Transportation System Plan Implementation Effectiveness

The City, in conjunction with Union County Planning Department, should monitor its progress in meeting TPR objectives using benchmarks that are relatively easy to measure and update. Selected benchmarks should be identified with emphasis on readily available secondary data (i.e., U.S. Census) and/or primary data (i.e., resident opinion surveys). Typical benchmarks include: modal

share of commute trips by alternative modes; safety; and resident opinions regarding general livability and accessibility within the UGB.

Step 8. Update the Transportation System Plan during each Periodic Review
Following initial compliance, the Transportation System Plan must be updated during each scheduled periodic review.