

# Lane County Transportation System Plan

Effective June 4, 2004



Lane County Public Works Engineering Division Transportation Planning 3040 N. Delta Highway Eugene, OR 97408

### LANE COUNTY TRANSPORTATION SYSTEM PLAN

Lane County Public Works Engineering Division, Transportation Planning 3040 North Delta Highway Eugene, OR 97408

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### ADOPTION

The Lane County Planning Commission recommended adoption of this document in its present form on October 14, 2003.

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### **CHAPTER I: INTRODUCTION**

### Purpose

The Lane County Transportation System Plan (TSP) updates the first Transportation Plan adopted by the County in 1980. The TSP is a 20-year planning document whose overall purpose is to facilitate orderly and efficient management of the County's transportation system. More specifically, the purpose of adopting a new Transportation System Plan and associated code amendments is to:

- comply with Oregon Revised Statutes (ORS 197.175) and the Transportation Planning Rule (TPR, OAR 660-012), which require the County to adopt an updated TSP to comply with new state requirements and changing circumstances.
- describe the existing transportation system, including the roads system, bicycle and pedestrian facilities, public transportation, rail, air, and water facilities, and pipelines;
- identify present and future transportation needs, and how these needs will be prioritized and paid for given the current and anticipated financial outlook;
- promote coordination between transportation system improvements and land use requirements;
- facilitate the multi-modal transportation needs of County citizens; and
- promote consistency and coordination between agencies with jurisdiction over components of the transportation network.

### Relationship of TSP to County Comprehensive Plan, City TSPs, and State Plans

The County Comprehensive Plan includes all City-adopted comprehensive plans within the County. The County TSP is a Special Purpose Plan that is a component of the Comprehensive Plan (refer to Lane County General Plan Chart, Appendix F).

Each of the twelve incorporated cities within Lane County has its own comprehensive plan, including a transportation element and/or a TSP. These plans are applicable to individual cities and the area outside the city limits and inside the corresponding urban growth boundary (UGB). For the Eugene-Springfield Metropolitan area, *TransPlan* is the adopted Transportation System Plan, and it applies within the adopted Metro Area General Plan boundary. Under the state TPR, TSPs must be consistent with each other and with State Transportation Plan components, including the Oregon Aviation Plan, Oregon Bicycle/Pedestrian Plan, Corridor Plans, Oregon Highway Plan, Oregon Public Transportation Plan, the Rail Freight Plan, and the Rail Passenger Policy and Plan.

While the County TSP looks to City TSPs when decisions are needed regarding transportation facilities within urban growth boundaries, the County TSP must also be consulted regarding County Roads within urban growth boundaries. Similarly, while state highways, and rail, air, port, and pipeline facilities within the County are described in the County TSP and provided for in goals and policies, the managing public or private agency of those facilities, and their applicable plan documents, must also be consulted in making decisions about those facilities.

To date, the following local jurisdictions within Lane County have completed and adopted TSPs:

- City of Coburg (adopted November 1999)
- City of Cottage Grove (adopted September 1998)
- City of Creswell (adopted October 1998)
- Eugene-Springfield (*TransPlan*, adopted October 2001, amended July 2002)
- Junction City (adopted November 2000)
- City of Oakridge (adopted January 2001)
- City of Veneta (adopted December 1998)

It is anticipated that Florence and the County will co-adopt a TSP as part of that City's comprehensive plan in 2003. City TSPs include projects for which Lane County is the lead agency. These projects are therefore also included in the County's project list, Chapter 6.4.

### On the Horizon: A Focus on Multi-Modal Transportation and Energy Conservation

For decades, the combination of thousands of miles of public roads, increasing per capita income, and affordable private vehicles has offered unprecedented freedom to travel. The automobile allowed mobility and choices as to cultural, social, and economic pursuits, including employment, purchasing decisions, and recreation. Undoubtedly the growth and increasing vitality of the United States since the early 1900s can be partially attributed to this unprecedented mobility.

With increased motorized travel comes traffic congestion and air pollution, and concerns about global warming and energy shortages. For many citizens in Lane County, where these problems have had a relatively minor impact on livability compared to other, more intensely urbanized areas, these issues seem distant and even irrelevant. However, initiatives and trends on the national level attest to broad recognition of their reality:

- The Securing America's Future Energy Act of 2002 (H.R. 4), if passed, would (in part) provide incentives for cleaner energy sources and alternative fueled vehicles.
- In the year 2000, Honda and Toyota each released "hybrid" cars that combine electricity and gasoline to obtain significant increases in miles per gallon over conventional cars. Other car manufacturers are following suit. Honda, General Motors, and Daimler Chrysler recently announced plans to market fuel cell cars powered by hydrogen by 2003.<sup>1</sup>
- Although stable, long term funding remains elusive for high-speed rail, support for it continues to grow. The High-Speed Rail Investment Act established 12 high-speed rail corridors around the country, and several regions are moving toward implementation. The Pacific Northwest Corridor between Eugene and Vancouver, B.C. is a first step toward realization of high-speed rail in this area. Virginia, North Carolina, South Carolina and Georgia have joined together and are working with the business communities in each state to implement high-speed rail in the Southeast. Californians are considering a general obligation bond to fund a high-speed train system, to begin construction in 2004. The Midwest High Speed Rail Coalition envisions connecting Wisconsin, Nebraska, Kansas, Illinois, and Ohio.

On a local level, communities are increasingly focusing efforts on transportation demand management concepts, such as Lane Transit District's Commuter Solutions Program and Bus Rapid Transit, and the Portland Metro area's limitation on downtown parking and light rail system, Max. Neotraditional land use planning models have also surged in popularity over the last decade, as communities struggle to deal with growth and sprawl. These models borrow from historical examples of urban development and typically promote mixed uses at a pedestrian scale. A principle goal of such development is to discourage auto trips and encourage trips that can be easily made by biking or walking.

Demographic trends also demand increased attention to alternative transportation modes. As in the nation as a whole, the County's population is aging. By 2020, the percentage of the population aged 65 or older is expected to increase from 12.8% (2000) to 16.4 % of the total population<sup>2</sup>. The 2000 Census indicates that Florence's population is already 38.2% 65 years of age or older, and in Dunes City, 27.3% of the population is also in this category. As people age, driving independently will be eliminated as a mobility option for many of them, yet they will continue to need transportation services.

### Coordination

The variety of transportation needs of County residents requires coordination among all governing agencies, particularly since County Roads are the only transportation mode over which Lane County can exercise direct

<sup>&</sup>lt;sup>1</sup> October 2002, Google World News Listings

<sup>&</sup>lt;sup>2</sup> U.S. Department of Health and Human Services, October 2002

jurisdiction. Coordination is especially important given that the State Constitution requires that highway user fees be used for road-related purposes. Transit facilities and services, for instance, are not a legal use of these funds. However, by participating in multi-jurisdictional planning and development related to diversifying mobility options within and between Eugene-Springfield, Florence, and other cities, the County can contribute to transportation solutions for the citizens of these areas and also mitigate capacity problems and limit costly infrastructure investments. As transportation-related problems increase, the use of more flexible funding sources outside of the Road Fund may become necessary to enable more comprehensive multi-modal transportation investments.

Fostering an expanded multi-modal transportation system is most successful within cities, where bicycle, pedestrian, and transit facilities are most necessary and feasible. Beyond city boundaries, however, the County TSP is an important component of the overall transportation planning framework. The County contributes by:

- Coordinating with state and local agencies that manage the transportation network, and providing policy support for efficient integration. This includes working with Oregon Department of Transportation and City governments within Lane County to ensure intersecting roads in multiple jurisdictions function at optimal levels; coordinating with Lane Transit District in the location of bus stops and development of new routes; and providing policy support for Port of Siuslaw and rail operations.
- Considering the needs of pedestrians and cyclists for all County Road improvement projects through the construction of marked bike lanes and sidewalks in urban areas, and wider shoulders for rural pedestrian and bicycle use.
- Implementing statewide land use goals that limit development in outlying rural areas, thereby reducing vehicle miles traveled for commute trips and delivery of goods and services that would potentially result.
- The County plays a key role in contributing to integration between rail, port, and road facilities for the movement of goods and services. Ensuring the maintenance and operation of the County's road system, and coordinating with ODOT where State and County Roads intersect, is crucial to provide for efficient movement of goods and services within and through the County and between transportation modes.

### **Plan Development and Public Involvement**

The effort to update the County's TSP initially began in the mid-1990's. Several public meetings were held around the County in 1995 to disseminate information about the planning process and to gather feedback about transportation issues. A questionnaire was widely distributed, and 18 responses were submitted. A summary of 1995 public comments is included in Appendix E.2.

Since then, County planning and engineering staff developed a road inventory, a detailed needs assessment, and road design standards. Based upon established engineering practices and County procedures, the standards were fine-tuned for County roadways. In the late 1990s, the TSP effort was delayed due to reallocation of County resources to other projects, including co-adoption of the six small City Transportation System Plans, and adoption of *TransPlan* for the Eugene-Springfield Metropolitan area. Lane County re-energized its efforts to move forward on the TSP adoption effort again during 2001.

This draft represents a culmination of all of these past efforts. As part of an overall package to comply with the TPR the County also developed land use regulations to implement the TSP. In addition, Lane Code and Lane Manual Chapters 15, which contain provisions for roads, are being updated.

Upon completion of the TSP draft, and before beginning a formal hearing and adoption process, a second round of public meetings was held in February 2003 throughout the County. Proposed Lane Code and Lane Manual updates were released for public comment in July 2003. Draft materials were also made available on the internet. In addition, notices of availability of the drafts were mailed to a list of over 500 public and private sector individuals. A copy of the Public Involvement Plan as approved by the Lane County Planning Commission in February 2002 is included in Appendix E.1.

### **CHAPTER 2: DEFINITIONS**

The following definitions shall apply in interpreting and implementing the Lane County Transportation System Plan:

- (1) <u>Access</u>. Subject to adopted policies and standards, the means by which a lot, parcel, area or tract directly obtains safe, adequate and usable ingress and egress.
- (2) <u>Access Management</u>. The regulation of vehicular access to streets, roads and highways from public and private roads and driveways to reduce potential conflicts and promote safety as well as to preserve the capacity, speed, and traffic flow for which the road system was planned for and designed. These measures may include, but are not limited to, policies and spacing standards for access to roadways, and use of physical controls such as channelization and raised medians.
- (3) <u>Approach (Road Approach, Driveway Approach)</u>. The area of intersection of an approaching road or driveway with a road.
- (4) <u>Capacity</u>.
  - (a) The maximum number of vehicles that can reasonably be expected to traverse a point or segment of road under prevailing conditions and during a specified period of time.
  - (b) The structural capacity of a roadway, or the ability of the pavement structure, bridges, or other crosssectional elements to carry loads created by traffic or the dead-load of the elements themselves.
- (5) <u>Capital Improvement Program (CIP)</u>. A short range financial plan that programs construction project funding for the County Road Fund. Lane County maintains an annually updated CIP for transportation improvement projects.
- (6) <u>Demand Management</u>. Actions that are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity. Methods may include but are not limited to the use of alternative modes, ride-sharing and vanpool programs, and tripreduction ordinances.
- (7) <u>Egress</u>. A means or place of leaving a property.
- (8) <u>Final Design</u>. An engineering design which specifies in detail the location and alignment of a planned transportation facility or improvement that has been approved by the County Board of Commissioners. See also Preliminary Design.
- (9) <u>Functional Class</u>. The classification of a road according to its expected level of service and function. The following functional class definitions apply to County Roads as defined under Roads in this section:
  - (a) <u>Principal Arterial</u>. A road which provides for through traffic between major centers of human activity in urban, suburban and rural areas.
  - (b) <u>Minor Arterial</u>. A road which provides for intracommunity traffic flow to principal arterials and within urban areas. In rural areas, minor arterials serve as a direct connection between communities and also bring traffic to principal arterials.
  - (c) <u>Major Collector</u>. A road or street which is used primarily to channel traffic from neighborhoods to arterials, and to commercial or industrial districts in urban areas. In rural areas, major collectors provide connections from outlying areas to the arterial system (primarily state highways).
  - (d) <u>Minor Collector</u>. A road or street which gathers traffic within the neighborhood and directs it to a major collector or arterial.
  - (e) <u>Local Road or Street</u>. A road intended solely for the purpose of providing access to adjacent properties. A local road may terminate in a cul-de-sac or be part of a larger network. Roads

functionally classified as Local Roads are County-maintained roads and do not include Public Roads that have not been accepted by the Board as County Roads, or Local Access Roads.

- (10) <u>Ingress</u>. A means or place of entering a property.
- (11) Land Use Decision. As defined in Lane Code 14.015.
- (12) Land Use Regulation. As defined in Lane Code 14.015.
- (13) <u>Modernization</u>. Road improvement projects to accommodate existing traffic and/or projected traffic growth consistent with adopted state, regional, county, or other local Transportation System Plans. County modernization projects are typically included in the General Construction project list of the County Capital Improvements Program. Modernization projects include, but are not limited to: reconstruction of roads; realignment of roads; addition of paved shoulders, curb and gutter, sidewalks, or other pedestrian and bicycle facilities; reconstruction of slopes, embankments, or ditches to provide improved safety and drainage; addition of travel lanes; widening of bridges; passing and climbing lanes; median turn lanes, acceleration and deceleration lanes, other channelization as defined in this section; new alignments, new safety rest areas, grade separations, intersection improvements, intermodal connectors, high-occupancy vehicle lanes, and off system improvements.
- (14) <u>New Road</u>. Construction of a Public Road or road segment that is not a reconstruction, modification, or realignment of an existing road or road segment.
- (15) Operation, maintenance, and/or repair. Routine activities necessary to operate and maintain the road system. These activities include, but are not limited to, signing, pavement marking, traffic signals, pavement surface maintenance and repair; pothole patching, culvert pipe and ditch grading, maintenance, or repair; dust control, vegetation control, and litter and animal carcass cleanup. These activities and minor transportation system improvements associated with them are not listed as projects in the Transportation System Plan or Capital Improvement Program. These activities provide for increased efficiency and safer traffic operations and reliability. Activities may include some aspects of preservation as defined in this section. Pavement surface maintenance does not include additional pavement structure needed as a result of a change in or intensification of a use of a property.
- (16) <u>Preliminary Design</u>. An engineering design which specifies in detail the proposed location and alignment of a planned transportation facility or improvement. Preliminary design is normally specified as part of the Capital Improvement Program public involvement process when a project is being readied to be sent out to bid for construction. See also Final Design.
- (17) <u>Preservation</u>. Activities that rebuild or extend the service life of existing transportation facilities. Road preservation projects add useful life to the road. Preservation includes but is not limited to reconstruction, pavement rehabilitation, pavement resurfacing, and minor safety and bridge improvements.
- (18) <u>Realignment</u>. Constructing or rebuilding an existing roadway on a new alignment where the new centerline shifts outside of the existing right-of-way, and where the existing road surface is either removed, maintained as an access road, or maintained as a connection between the realigned roadway and a road that intersects the original alignment. The realignment may include channelization, and may increase capacity, but shall maintain the function of the existing road segment being realigned unless specified in adopted state, regional, county, or other local Transportation System Plans.
- (19) <u>Reconstruction or modification</u>. Rebuilding an existing road in the same general location, either within the existing right-of-way or by acquiring new right-of-way. May or may not include realignment and/or the addition of turn lanes or other channelization. Reconstruction or modification may increase capacity.

- (20) <u>Rehabilitation</u>. Road resurfacing, sealing, paving, and restoration, over and above routine maintenance, to repair deteriorating road surfaces and to address safety concerns.
- (21) <u>Right-of-Way (ROW, R/W).</u>
  - (a) Includes the land or any interest in land acquired for public rights of passage, construction of facilities, motorists, cyclists, pedestrians, and utilities.
  - (b) The customary or legal right of a person or vehicle to pass before another.
- (22) <u>Road</u>. The terms road, street, or highway shall be considered synonymous and shall include the entire area and all lawful improvements between the right-of-way lines of any public or private way that is created to provide ingress or egress to land. "Road" includes but is not limited to:
  - (a) Arterials, collectors, and local roads as in the functional classes defined above under Functional Class;
  - (b) Road related structures that are in the right-of-way such as drainage conveyance facilities;
  - (c) Other structures in the right-of-way that provide for the continuity and stability of the right-of-way including tunnels, retaining walls, and bridges;
  - (d) Underground and/or overhead utilities and utility easements that are within the right-of-way.
  - (e) Roads are further defined as follows:
    - (i) <u>County Road</u>. As defined in ORS 368. A Public Road which is part of the County Road system and has been assigned a County Road number pursuant to ORS 368.016. The Department is responsible for maintenance. A description of each County Road is kept in the Master Road Files in the Lane County Surveyor's office. See also Functional Class definitions.
    - (ii) <u>Expressway</u>. Two-lane and multi-lane highways that provide for safe and efficient high speed and high volume traffic movements. Their primary function is to provide for interurban travel and connections to ports and major recreation areas with minimum interruptions. A secondary function is to provide for long distance intra-urban travel in metropolitan areas. In urban areas, speeds are moderate to high. In rural areas, speeds are high. Usually there are no pedestrian facilities and bicycle facilities may be separated from the roadway. Private access is discouraged and Public Road connections are highly controlled.
    - (iii) <u>Freeway</u>. Arterial roadways with full control of access. Preference is given to through traffic by providing access connections with selected public streets only and by prohibiting crossings at grade and direct private driveway connections. They are intended to provide for high levels of service in the movement of large volumes of traffic at high speeds.
    - (iv) <u>Frontage Road</u>. A road that is parallel and adjacent to an arterial or other limited access road or railroad right-of-way and which provides access to abutting properties. The primary purpose of a frontage road is to reduce direct access to an arterial or other limited access road or railway right-of-way.
    - (v) <u>Local Access Road</u>. A Public Road that is not a County Road, state highway, or federal road. Pursuant to ORS 368, the County and its officers, employees and/or agents, is not liable for failure to improve Local Access Roads and is not liable to keep Local Access Roads in repair. The County shall spend County moneys on Local Access Roads only if it determines that the work is an emergency or if:
      - (aa) the Director recommends the expenditure; and
      - (bb) the public use of the road justifies the expenditure proposed; and
      - (cc) the Board enacts an order or resolution authorizing the work and designating the work to be either a single project or a continuing program.
    - (vi) <u>Private Access Easement, Private Road</u>. A private, nonpossessory interest in the land of another which entitles the holder(s) of the interest to use the roadway for access and to pass across another's land. A private road is intended to provide for ingress and egress to land and may include that portion of a panhandle or flag lot or parcel that is used for access purposes or an access road in which the underlying fee belongs to two or more persons, association, corporation, firm, club, partnership or other similar entity having the right of administration and/or ownership thereof.

- (vii) Public Road. A road over which the public has a right of use that is a matter of record. For purposes of the Transportation System Plan, a Public Road is a road that has been dedicated for use by the public for road purposes either by good and sufficient deed presented to and accepted by the Board, or by a partition map and plat or subdivision plat presented to and accepted by the Board. Once accepted and placed on record, Public Roads are held in trust for the public by the County, and shall specifically exclude private roads, private ways, Private Access Easements or agreements, Forest Service roads, Bureau of Land Management roads, any Gateway or Way of Necessity as defined by ORS Chapter 376 and any other road which has nominally or judicially gained a "public character" by prescriptive or adverse use. A Public Road is not normally maintained by the County unless it has been accepted by the Board as a County Road as defined in this section, but the County may regulate its use. Common terms for this type of road are "Dedicated Public Road" and "Local Access Road".
- (viii) <u>Rural Road</u>. A road or portion of a road that is not within an urban growth boundary.
- (ix) <u>Stubbed Road</u>. A road having only one outlet, and which is intended to be extended or continued to serve future development on adjacent lands. A stubbed road that is part of the County Road system is functionally classified as a Local Road. This can include a cul-de-sac or hammerhead turnaround area intended to be extended in the future.
- (x) <u>Turnaround (Cul-de-sac or Hammerhead)</u>. The area located at the terminus of a road and developed to the standards for Turnarounds in Lane Code Chapter 15, the purpose of which is to allow motor vehicles to safely and efficiently reverse direction.
- (xi) <u>Urban Road</u>. A road or portion of a road that is within an urban growth boundary.
- (23) <u>Transportation Facility</u>. A physical system, including any portion thereof, that moves or assists in the transport of people, animals, or goods, including roads, bicycle, pedestrian, and equestrian paths, rail lines, airport facilities, port facilities, and pipelines, and excluding electricity, water and sewerage systems.
- (24) <u>Transportation Project Development</u>. Implementing the Transportation System Plan (TSP) by determining the precise location, alignment, and preliminary design of improvements included in the TSP based on site-specific engineering and environmental studies.

### **CHAPTER 3: GOALS AND POLICIES**

For convenience, all goals and policies found in the remainder of the document are consolidated in this chapter.

Goals are broad statements of philosophy describing a vision for the future. Goals are organized by topic area. Policies are statements that provide a more specific course of action to move toward goals. Policies have the force of law. Transportation improvements, land development, and other actions affecting the County's transportation network must be consistent with adopted policies. Once adopted, the goals and policies will become a part of the County's General Plan.

### **Goals And Policies**

### ROADS

- Goal 1: Maintain the safety, physical integrity and function of the County Road network through the routine maintenance program, the Capital Improvement Program, and the consistent application of road design standards.
  - Policy 1-a: Road operations, maintenance, repair, and preservation activities shall be a priority of the Public Works Operations budget and shall be routinely carried out to protect the public investment in, and to ensure adequate functioning of the County Road network.
  - Policy 1-b: Continue to implement the Capital Improvement Program including yearly adoption to address changing conditions, modified project schedules, the addition of new projects, and project completion.
  - Policy 1-c: Safety shall be the first priority in making decisions for the Capital Improvement Program and for roadway operations, maintenance, and repair.
  - Policy 1-d: The requirements of Lane Code 15 shall be consistently applied to all public and private road improvement projects. In the absence of a County-adopted standard for a particular design element, the edition specified in Lane Manual 15.450 of the following primary documents shall be the basis for road design, construction, signing and marking decisions:
    - (i) The following documents, published by the American Association of State Highway and Transportation Officials (AASHTO):
      - (a) A Policy on Geometric Design of Highways and Streets;
      - (b) *Roadside Design Guide*;
      - (c) Geometric Design of Very Low Volume Local Roads (ADT  $\leq$  400); and
      - (d) *Guide for Design of Pavement Structures.*
    - (ii) The *Manual on Uniform Traffic Control Devices (MUTCD)* published by the Federal Highway Administration.
    - (iii) The following additional documents published by the Oregon Department of Transportation (ODOT) and the American Public Works Association (APWA), Oregon Chapter:
      - (a) Oregon Standard Specifications for Construction (ODOT & APWA);
      - (b) Oregon Standard Drawings (ODOT & APWA);
      - (c) ODOT Highway Design Manual;
      - (d) ODOT *Hydraulics Manual*;
      - (e) ODOT *Hydraulics Manual, Volume 2* (Erosion and Sediment Control);
      - (f) Oregon Bicycle and Pedestrian Plan (ODOT, 1995); and
      - (g) 1999 Oregon Highway Plan (ODOT).
    - (iv) The Highway Capacity Manual 2000 published by the Transportation Research Board.

- (v) The *Trip Generation*, 7<sup>th</sup> *Edition* manual published by the Institute of Traffic Engineers.
- Policy 1-e: Road improvement projects shall consider and, as financially and legally feasible, integrate improvements for alternative transportation modes such as sidewalks, bike lanes, and bus stop turnouts, consistent with adopted road design standards.
- Policy 1-f: Maintain County arterial and collector roads sufficiently for the safe and efficient movement of freight, consistent with applicable traffic impact analysis, design policies and standards and land use regulations.
- Policy 1-g: Maintain and improve roads consistent with their functional classification. Reclassify roads as appropriate to reflect function and use.
- Policy 1-h: City standards shall apply to County Roads functionally classified as local roads within urban growth boundaries. In the absence of City standards, the County's road design standards shall apply.

# Goal 2: Promote a safe and efficient state highway system through the State Transportation Improvement Program and support of ODOT capital improvement projects.

- Policy 2-a: Safe movement of vehicles on the State system and, where allowed, bicyclists and pedestrians shall be a priority. Lane County supports development and implementation of ODOT projects that improve the safety, operation, and structural characteristics of the State highway and bridge system, provided they are consistent with the TSP and applicable federal, state, and local regulations.
- Policy 2-b: The County shall coordinate, as appropriate, with ODOT in:
  - (i) plan development;
  - (ii) managing the existing State system; and
  - (iii) designing and developing facility improvements on the State system in Lane County.
- Policy 2-c: The County supports the preservation of the natural, historic, cultural, and recreational values of federally designated Scenic Byway routes maintained by ODOT.
- Policy 2-d: ODOT safety, preservation and modernization projects on the State system shall be consistent with Policies 2a-c above, and need not be identified in the Lane County TSP 20-year Project List.

#### Goal 3: Promote a safe and efficient road network through access management.

- Policy 3-a: Access decisions will be made in a manner consistent with the functional classification of the roadway.
- Policy 3-b: Access Management policies and spacing standards found herein and in Lane Code 15.130-15.139 shall apply to all new development, changes of use, and road and driveway approach locations within County Road rights-of-way. For State facilities, the Oregon Department of Transportation controls access pursuant to Oregon Administrative Rules 734, Division 51.
- Policy 3-c: Development within a County Road right-of-way, including but not limited to excavation, clearing, grading, utility placement, culvert placement or replacement, other stormwater facilities, and construction or reconstruction of road or driveway approaches, is allowed only upon approval of a facility permit.

- Policy 3-d: Properties adjacent to County Roads shall be granted reasonable access subject to access management and other applicable policies and standards herein and in Lane Code. Where access is available from more than one road, access shall be taken from the road with the lower functional classification as defined in Lane Code 15.020(2), unless otherwise approved by the County Engineer or designee.
- Policy 3-e: Decisions regarding placement, location, relocation, and spacing of traffic control devices, including but not limited to traffic signals, turn lanes, and medians shall be based upon accepted engineering practices as provided for in the edition specified in Lane Manual 15.450 of the following documents: The Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, the *Oregon Standard Drawings* published by the Oregon Department of Transportation (ODOT) and American Public Works Association (APWA), and *A Policy on Geometric Design of Highways and Streets* published by the American Association of State Highway and Transportation Officials (AASHTO).
- Policy 3-f: New development shall accommodate on-site traffic circulation on the site and not by circulating on and off the site through multiple access points using the public road system. "Backing out" maneuvers should be avoided for new driveways on all urban arterials and rural major collectors.

### Goal 4: Maintain acceptable road performance levels.

Policy 4-a: The performance standard on County-maintained roads shall be as represented in the following peak hour volume to capacity ratio (v/c) table from Lane Code 15.696. Given adequate funding for public road improvements and as a secondary priority to safety improvements, this standard should be maintained in making decisions about public road improvement projects or implementation of other programs and strategies that mitigate traffic.

Roadway Category	Location/Speed Limits				
	Inside Urban Growth Boundary			Outside Urban Growth Boundary	
	Eugene-Springfield Metro Area	Outside Eugene- Springfield Metro area where speed limit <45 mph	Outside Eugene- Springfield Metro area where speed ≥ 45 mph	Within Unincorporated Communities	Outside Unincorporated Communities
Freeways and Expressways	0.80	n/a	n/a	n/a	n/a
Other County Roads	0.85	0.85	0.75	0.80	0.70

(Table 6 from Chapter 4.1.): Maximum Volume to Capacity Ratios for Peak Hour Operating Conditions, Lane County Roads

- Policy 4-b: In analyzing arterial or collector streets, peak hour level of service analysis methods may be appropriate. Level of service "D", using the analytical approaches in the Transportation Research Board *Highway Capacity Manual* is the standard of performance to be achieved or maintained, and not exceeded. Not exceeding LOS "D" means achieving or maintaining LOS "A", "B", "C", or "D". When such analysis is required, both the v/c standard in Lane Code 15.696 and LOS D must be met. The standards and procedures to be used in a particular study shall be approved in advance by Lane County Public Works, according to the procedures in the Traffic Impact Analysis Guidelines of the Public Works Engineering Division.
- Policy 4-c: A traffic impact analysis shall be required as part of a complete land use application based upon the requirements of Lane Code 15.697, for any of the following:
  - (i) any development proposal that, if approved, will result in an increase in peak hour traffic flow of 50 or more automobile trips outside an urban growth boundary, or 100 or more automobile trips inside an urban growth boundary. The increase in number of

trips shall be calculated based upon the methodology in the Institute of Traffic Engineers' *Trip Generation* manual for the year of publication specified in Lane Manual Chapter 15.450 and associated handbook and user's guide;

- (ii) development proposals that will affect County Roads where congestion or safety problems have been identified by previous traffic engineering analysis;
- (iii) any plan amendment proposal, unless waived by the County Engineer as specified below;
- (iv) proposed development that will generate or receive traffic by single or combination vehicles with gross weights greater than 26,000 pounds as part of their daily operations.
  "Daily operations" includes delivery to or from the site of materials or products manufactured, processed, or sold by the business on the site. "Daily operations" does not include routine services provided to the site by others, such as mail delivery, solid waste pickup, or bus service.

The County Engineer or designee may waive traffic impact analysis requirements specified above, when:

- (i) Previous analysis has determined that the development proposal will not result in congestion, safety, or pavement structure impacts that exceed the standards of the agency that operates the affected transportation facilities; or
- (ii) In the case of a plan amendment or zone change, the scale and size of the proposal is insignificant, eliminating the need for detailed traffic analysis of the performance of roadway facilities for the 20-year planning horizon. Whether the scale and size of a proposal may be considered insignificant may depend on the existing level of service on affected roadways. Generally, a waiver to Traffic Impact Analysis will be approved when:
  - (a) the plan designation or zoning that results will be entirely a resource designation; or
  - (b) the plan designation or zoning that results will be entirely residential and the allowed density is not likely to result in creation of more than 50 lots; and
  - (c) there is adequate information for the County Engineer or designee to determine that a transportation facility is not significantly affected as defined in Policy 20-d.

### Policy 4-d: When a traffic impact analysis is required,

- (i) it shall evaluate all affected County Road facilities where direct access is proposed, including proposed access points and nearby intersections.
- (ii) it shall be prepared by an Oregon-certified engineer with expertise in traffic and road construction engineering.
- (iii) it shall document compliance with the Road Design Standards in Lane Code 15.700-15.708.
- (iv) it shall document compliance with the goals and policies of the applicable Transportation System Plan.
- (v) the County Engineer may alter the study requirements based upon the anticipated impact of the proposal. For example, a queue length analysis (based upon 95% probability) may be required.
- (vi) the traffic impact analysis requirements shall be coordinated with other affected jurisdictions and agencies, such as the Oregon Department of Transportation or a city.
- (vii) traffic engineers preparing traffic impact analyses shall request approval of the scope of the analysis before proceeding with the analysis, as specified in the Traffic Impact Analysis Guidelines of the Public Works Engineering Division.
- Policy 4-e: When a traffic impact analysis is required,
  - (i) for plan amendments, it shall demonstrate that the performance standard in Policy 4-b for the affected County Road will not be exceeded within 20 years from the date the

analysis is completed as a result of approval of the plan amendment or zone change. If the performance standards are already exceeded at a location affected by the plan amendment, the standard shall be to avoid further degradation of conditions;

- (ii) for other proposed land use development, it shall demonstrate that the performance standard in Lane Code 15.696 for the affected County Road will not be exceeded immediately and for the next five years.
- (iii) if the analysis must include an evaluation of the impacts of heavy vehicles pursuant to Policy 4-c (iv), it shall be based upon the procedures for pavement structure analysis in Lane Code 15.707.
- (iv) Traffic impact analyses, and mitigation for traffic impacts on transportation facilities shall comply with adopted plans and codes of the agency with jurisdiction for the affected facility.
- (v) If the performance standard in Policy 4-b cannot be achieved or maintained as specified in (i) or (ii) above, the traffic impact analysis shall propose road dedications and improvements for capacity increases, implementation of demand management strategies, or other mitigation measures. The proposal shall include a description of how and when the improvements or measures will be implemented. Any proposed road improvements shall be consistent with applicable state and local policies and standards. Examples of mitigation actions are in Chapter 4.1 in the *Level of Service and System Performance* subsection. Conditions may be assigned to ensure such improvements or measures will be implemented.

Any requirements by the County resulting from an approved traffic impact analysis shall be the responsibility of the applicant unless otherwise approved by the County.

- Policy 4-f: The Transportation Research Board's *Highway Capacity Manual*, for the year of publication specified in LM 15.450, is the standard of practice for traffic impact analyses. The Highway Capacity Software (HCS) published by McTrans Center for Microcomputers in Transportation, or other approved software, may also be used. SIGCAP published by ODOT, or other ODOT-approved software is acceptable when analysis of both State and County facilities is required.
- Policy 4-g: ODOT policies and mobility standards shall be applied to decisions affecting State highways in Lane County. Applicable standards from City Transportation System Plans (TSPs) shall be applied to decisions about City streets.
- Policy 4-h: Traffic impact analyses shall be based on proposed access points consistent with County access management policies and standards specified herein and in Lane Code 15.130-15.139. Traffic impact analyses shall also consider the safe operation of affected driveways and public street intersections. Proposals requiring traffic impact analysis shall include a review of consistency with Access Management policies and standards as part of the approval of the scope of the analysis.
- Policy 4-i: When analyzing signalized intersections, locations where signal warrants may be met, or intersections with all-way stop control (AWSC), the primary objective is to maintain the performance of the overall intersection. The overall intersection v/c ratio must meet the applicable standard. If level of service analysis is required, the level of service standard must also be met. At unsignalized intersections and road approaches with two-way stop control (TWSC), the object is to achieve or maintain the v/c ratios specified in Policy 4-a for the approaches that are not stopped. Approaches at which traffic must stop, or otherwise yield the right of way, shall be operated to maintain safe operation of the intersection and all its approaches and shall not exceed a v/c ratio of 0.95 within urban growth boundaries and a v/c ratio of 0.80 outside of urban growth boundaries. If public side streets or private driveways are predicted to exceed the standards, mitigation measures shall be recommended. If side

street or driveway performance is predicted to exceed standards in order to maintain flow on the major street, adequate space for vehicle queuing (based upon 95% probability) must be maintained on the side street or driveway. At the intersection of a County Road and a State highway, State highway standards must be maintained for the State highway.

#### Goal 5: Promote a safe, functional, and well-maintained bridge network in Lane County.

Policy 5-a:	Conduct bridge inspections in compliance with Federal Highway Administration and Oregon Department of Transportation requirements.
Policy 5-b	Maintain an inventory of all County structures including inspection records showing load ratings, general condition, and sufficiency ratings.
Policy 5-c:	Consider the inclusion of bridges in the Capital Improvement Program if they are structurally or functionally deficient based upon bridge general condition ratings, roadway width, bike/pedestrian passage, load capacity, safety, and operating conditions.
Policy 5-d:	Conduct routine maintenance and repair to ensure bridge integrity over the duration of its design life.
Policy 5-e:	Consider the needs of the trucking industry when maintaining, building, or reconstructing bridges.
Policy 5-f:	Maintain and restore Lane County covered bridges for their historic, aesthetic and cultural value as feasible, through budget allocations to the Capital Improvement Program or other funding sources.

### **BICYCLE AND PEDESTRIAN FACILITIES**

# Goal 6: Provide safe and convenient opportunities for bicycle and pedestrian travel throughout Lane County.

- Policy 6-a: Marked bicycle lanes are required on urban arterial and collector streets when those streets are newly constructed, are reconstructed to urban standards, or are widened to provide additional vehicular capacity.
- Policy 6-b: Sidewalks or paved pathways accompanying public streets and roads are necessary wherever significant conflicts with motor vehicle traffic jeopardize the health, safety and welfare of pedestrians and bicyclists.
  - (i) Generally, sidewalks are not provided along rural County Roads (outside of urban growth boundaries) although they may be provided where there is a demonstrated need in unincorporated communities and in other areas of concentrated commercial, industrial, residential, or institutional development. This will be determined on a case by case basis.
  - (ii) County arterial and collector roads within urban growth boundaries shall include sidewalks and the cost shall be assessed to the abutting property owners, unless the assessment is waived by the Board of County Commissioners.
  - (iii) Sidewalks on new or reconstructed County Roads functionally classified as local roads within urban growth boundaries shall be required as provided for in City development standards. In the absence of City standards, sidewalks are required for new roads or reconstructed roads with existing sidewalks. Sidewalks shall also be required for reconstructed urban local roads without existing sidewalks, except if the cost would be excessively disproportionate to the need or probable use, or if sparsity of population, other available ways or other factors indicate an absence of any need

for sidewalks. Sidewalks shall be constructed at the expense of the developer or adjacent property owners.

- (iv) Roads which do not have curbs and gutters and which are not scheduled to be rebuilt, but which do have a significant need for sidewalks, may be provided with temporary asphalt walkways.
- Policy 6-c: Public Works staff should work with school district personnel to establish school route plans. Based on these plans, Lane County will install appropriate traffic control devices, such as signs, crosswalks or other markings, or other devices as approved by the Traffic Engineer.
- Policy 6-d: New development subject to Site Review and Land Division requirements shall provide adequately for safe bicycle and pedestrian on-site circulation and off-site transportation connections. Development shall provide for safe and convenient on-site circulation with respect to the location and dimensions of vehicular, bicycle, and pedestrian entrances, exits, drives, and walkways in relation to each other and to buildings and other facilities. Consideration shall be given to the need for lighting, sidewalks, widening and improving abutting streets, bus stop access, and bicycle lane and pedestrian path connections, consistent with adopted access management, road and driveway spacing standards, road design standards, and other requirements in Lane Code 15.
- Policy 6-e: All new development within urban growth boundaries, when adjacent to County-maintained road rights-of-way, shall include bicycle and pedestrian facilities as specified in the Road Design Standards for Urban Roads in Lane Code 15.
- Policy 6-f: The County generally will support State projects that include bicycle and pedestrian facilities.

# Goal 7: Promote logical and efficient bicycle and pedestrian connections within the Lane County transportation system and between the County's and other jurisdictions' transportation systems.

- Policy 7-a: In planning and implementing transportation system improvements, Lane County will coordinate with other affected jurisdictions to maximize bicycle and pedestrian route connectivity.
- Policy 7-b: The County will look for opportunities to partner with ODOT and City agencies on bicycle and pedestrian facilities when roads of different jurisdictions intersect, in order to provide adequately for bicycle and pedestrians travel to local destinations.

#### Goal 8: Promote connectivity between non-motorized and other transportation modes.

Policy 8-a: In the design and construction of transportation facilities, barriers to foot and bicycle travel should be avoided.

# Goal 9: Encourage and support the development of recreational bicycling and hiking facilities, recognizing these activities as important to community livability and to the tourism sector of the local and state economy.

- Policy 9-a: Road maintenance decisions will strive to balance the need for controlling long term pavement maintenance costs with consideration for providing improved road surfaces for cycling.
- Policy 9-b: Road improvement projects identified on the TSP Project List shall incorporate shoulders and sidewalks adequate for pedestrian use, consistent with other TSP policies and with road design standards to be adopted concurrently with the TSP.

- Policy 9-c: Within statutory road fund limitations, the County will consider opportunities to participate in off-road bicycle trail and footpath development and promotion, when there is adequate demand and as economically feasible.
- Policy 9-d: On a case-by-case basis, and within statutory road fund limitations, the County will consider the feasibility of establishing or maintaining access ways, paths, or trails prior to the vacation of any public easement or right-of-way.

### **PUBLIC TRANSPORTATION**

Goal 10: Support and encourage improved public transportation services and alternatives to single occupancy vehicle travel between the Eugene-Springfield Metropolitan Area and outlying communities.

- Policy 10-a: Continue to assist in coordinating public transportation and multi-modal transportation initiatives by providing technical support and otherwise participating in technical advisory committees, task forces and working groups, such as the regional Commuter Solutions (Transportation Demand Management) program.
- Policy 10-b: County Road construction and reconstruction projects shall include consultation with LTD and shall, as feasible, accommodate transit stops, bus pullouts and shelters along existing or planned bus routes as permitted under statutory requirements for road fund expenditures. Unless otherwise authorized by the Board of County Commissioners, transit stop amenities with the exception of bus pullouts will typically be funded by LTD or other non-County sources.
- Policy 10-c: The County will support efforts to develop public transit facilities such as park-n-ride lots and shelters in rural areas when they are consistent with land use, zoning, and other applicable regulations.
- Policy 10-d: The County will investigate the possibility of providing free or discounted bus transportation services for County employees as part of LTD's Group Pass Program.

### Goal 11: Support efforts to maintain rail transportation and to promote high speed rail development.

- Policy 11-a: As feasible, Lane County will participate in efforts to plan, develop, and maintain rail-related infrastructure improvements for high-speed and other passenger rail service.
- Policy 11-b: Lane County will coordinate with and support State efforts to comply with federal and state rail transportation requirements by consulting adopted versions of the Oregon Transportation Plan and Rail Plan when making transportation or land use decisions involving rail facilities.
- Goal 12: Support initiatives to develop improved transportation services for County citizens with special needs.
  - Policy 12-a: As feasible and as opportunities arise, Lane County will support public and private efforts to meet special transportation service needs for County residents, giving priority to rural residents.

### RAIL TRANSPORTATION

Goal 13: Promote railway and highway safety at and near road and railway intersections.

- Policy 13-a: Lane County's Engineering Division shall notify railroad companies of all road improvement projects within 500 feet of railways.
- Policy 13-b: Road improvement projects will give consideration to upgrading existing railroad crossings and protective devices, grade-separated crossings, elimination of existing railroad crossings, and to the extent possible, will minimize new railroad crossings.

### AIR TRANSPORTATION

#### Goal 14: Coordinate transportation system improvement decisions with airport facility needs.

- Policy 14-a: Road improvements on major airport access routes shall be consistent with the Eugene Airport Master Plan and with other Airport Plans adopted by cities where airports are located.
- Policy 14-b: Consistent with the 2000 Eugene Airport Master Plan, Lane County Public Works Engineering will coordinate with the Eugene Airport Authority to improve ground access to the airport. As opportunities arise, transportation system projects will incorporate improvements to access routes to other public airports in the County.
- Policy 14-c: Road improvement design decisions affecting access routes serving public airports in the County will consider the needs of motor vehicles associated with existing and contemplated air freight and air passenger businesses serving the airports.
- Policy 14-d: All County Road improvements near airports will be coordinated with federal, state, and local agencies responsible for airport air space.

#### Goal 15: Coordinate land use decisions with airport facility needs.

- Policy 15-a: Lane County shall review all proposed airport expansion plans and provide comment as appropriate regarding land use compatibility, consistency with zoning, and impacts on the County's transportation system.
- Policy 15-b: Lane County shall review all proposed land use outside urban growth boundaries and in the vicinity of an airport regarding compatibility with the airport. Airport airspace shall be protected from inappropriate development through the implementation of land use and zoning regulations.

#### Goal 16: Support multi-modal transportation services to and from the airport.

Policy 16-a: As possible, Lane County shall participate in planning and other efforts to improve public as well as private, multi-occupancy vehicle transportation services to and from the Eugene Airport.

### WATER TRANSPORTATION

## Goal 17: Support Port of Siuslaw development efforts and recognize the Port as important to the state and local economy.

Policy 17-a: Road improvement projects affecting facilities that support or are operated by the Port of Siuslaw shall be coordinated with the Port and with the Oregon Department of Transportation. Lane County will seek concurrence for all development in the Siuslaw River and adjacent to the navigable waterway.

- Policy 17-b: Lane County shall review proposed Port of Siuslaw expansion plans when they involve lands and/or roads in the County's jurisdiction, and provide comment as appropriate regarding land use compatibility, consistency with zoning, and impacts on the County's transportation system.
- Policy 17-c: Lane County shall support Port of Siuslaw in its efforts to improve navigability of the river and promotion of the local fishing industry, consistent with state and local land use and zoning laws.

#### Goal 18: Protect the long term ecological health of the Siuslaw River.

Policy 18-a: Development in and near the Siuslaw River in areas of County land use jurisdiction shall comply with the Lane County Coastal Resources Management Plan and with federal and state regulations.

### **PIPELINES**

### Goal 19: Protect pipelines as conveyances and for public safety.

- Policy 19-a: Lane County shall coordinate with pipeline providers on matters of mutual concern, such as road maintenance activities and road improvement projects to protect public safety and maintain the viability of both modes of transportation.
- Policy 19-b: Lane County shall review all proposed pipeline expansion plans and provide comment as appropriate regarding land use compatibility, consistency with zoning, and impacts on the County's transportation system.

### TRANSPORTATION AND LAND USE

# Goal 20: Ensure that transportation projects comply with state land use requirements regarding urban and rural land uses, and other federal, state, and local land use requirements.

Policy 20-a: Transportation projects, facilities, services and improvements as identified in Oregon Administrative Rules 660-012-0065 and as implemented in Lane Code may be permitted on rural lands consistent with statewide land use Goals 3, 4, 11, and 14 without a goal exception.

# Policy 20-b: The following transportation facility improvements do not require an amendment to the TSP unless an exception to state land use laws or a TSP amendment is otherwise required.

- (i) Channelization
- (ii) Operation, maintenance, and repair
- (iii) Preservation
- (iv) Reconstruction
- (v) Rehabilitation
- (vi) Intersection improvements
- (vii) Realignment
- (viii) Modernization
- (ix) Transportation facilities, services and improvements serving local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.

- Policy 20-c: Plan amendments, zone changes, and other land use decisions shall consider impacts on the County transportation system, including Federal, State, County, and other local roads; bicycle and pedestrian paths; public transit facilities; and air, rail, port, and pipeline facilities.
- Policy 20-d: Amendments to the comprehensive plan or any of its adopted components and sub-plans, which significantly affect a transportation facility, shall ensure that allowed land uses are consistent with road function, capacity, level of service, and other adopted performance standards. This may be accomplished by:
  - (i) limiting land uses to the existing road capacity or level of service;
  - (ii) amending the TSP pursuant to Lane Code 16.400(9), to provide adequate facilities;
  - (iii) altering the land use designation, densities, or design requirements to reduce demand for auto travel and meeting travel needs through other modes, or
  - (iv) amend the TSP, pursuant to LC 16.400(9), to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided. If a TSP amendment is required, it shall not be initiated unless the requirements of LC 16.400(9) have been met.

A plan or land use regulation amendment significantly affects a transportation facility, if it:

- (i) Changes the functional class of an existing or planned facility, or will result in the roadway facility no longer meeting the functional class definition;
- (ii) Changes standards that implement the functional class, except that approval of an exception or variance to standards does not in itself significantly affect a transportation facility;
- (iii) Allows types or levels of land uses that would result in levels of travel or access that are inconsistent with the functional class; or
- (iv) Would reduce the performance standards of the facility below the minimum acceptable level identified in the TSP.

Determinations under this policy shall be coordinated with affected transportation facility and service providers and other affected local governments.

- Policy 20-e: The presence of a transportation facility or improvement shall not be a basis for an exception under OAR 660-012, OAR 660-004-0022 or OAR 660-004-0028, to allow residential, commercial, institutional or industrial development on rural lands.
- Policy 20-f: When an exception to statewide land use goals and/or a plan amendment is required for a transportation facility, the approval process should be consolidated with other public hearings and approvals required for the project before the Roads Advisory Committee, the Planning Commission, and the County Board of Commissioners.
- Policy 20-g: Amendments to the County Transportation System Plan shall be processed according to applicable state law requirements, the provisions set forth in Lane Code Chapter 12, and Lane Code 16.400.
- Policy 20-h: Road improvement projects shall comply with federal, state, and local land use regulations.

#### Goal 21: Provide for coordinated land use review when making decisions about transportation facilities.

Policy 21-a: It is the County's intent that the Transportation System Plan be consistent with state Transportation System Plans, with *TransPlan* (the Eugene-Springfield Transportation System Plan applicable inside the Eugene-Springfield Metropolitan Area General Plan boundary), and with the Transportation System Plans of other cities within the County.

- Policy 21-b: County TSP goals and policies apply to:
  - (i) all roads in the County that have been dedicated to and formally accepted by the Board of County Commissioners, unless and until such roads are subsequently accepted or annexed by an incorporated community; and
  - (ii) all other transportation facilities and services, including road, air, rail, pipeline and port facilities, located outside of urban growth boundaries or outside of the Eugene-Springfield Metropolitan Area General Plan boundary.
- Policy 21-c: Where inconsistencies exist between the County TSP and other TSPs applicable within the County, or between road design standards of the County and other jurisdictions within the County, the following guidelines shall be used in making decisions about road improvements and services. If the inconsistency involves:
  - (i) a state highway, state transportation system plans and design standards shall prevail;
  - (ii) a public or private road outside of an urban growth boundary, the County TSP and road design standards shall prevail;
  - (iii) a public or private road functionally classified as a local road within an urban growth boundary, the City TSP and applicable road design standards shall prevail;
  - (iv) a road defined as a County Road pursuant to Lane Code 15.010 and functionally classified as a collector or arterial road, the County TSP and road design standards shall prevail;
  - (v) a public or private road functionally classified as a local road or primarily used to provide local access to abutting properties within the Eugene-Springfield Metropolitan Area General Plan boundary, *TransPlan* and the respective applicable Eugene or Springfield road design standards shall prevail within the urban growth boundary and the applicable County Road design standards shall apply outside the urban growth boundary;
  - (vi) an intersection or roads in more than one jurisdiction's ownership or control, the TSP goals and road design standards of the agency having ultimate maintenance responsibility shall prevail.

Decisions about road improvements may follow different guidelines than those above upon agreement of the elected officials of the involved jurisdictions or their designees, or if other recorded inter-jurisdictional agreements exist that supersede the above guidelines.

### Goal 22: Encourage adequate road improvements for new development.

Policy 22-a:	The dedication of adequate right-of-way and construction of road improvements may be required to serve traffic that will be generated due to the development.
Policy 22-b:	The County will consider opportunities to purchase land for extensions of right-of-way where connectivity between collector and arterial roads is needed to promote efficient traffic flow.
Policy 22-c:	The County encourages and will facilitate the formation of Local Improvement (special assessment) Districts to address road improvement needs on sub-standards roads.
Policy 22-d:	Road vacations proposed as part of lot or parcel reconfigurations or property line adjustments, that will result in loss of connectivity between Public and/or County Roads as defined in LC 15.010(35) shall require approval of a replat of all subdivision lots and partition parcels adjacent to the road to be vacated. As part of the replat process, the County may require dedication of right-of-way or the creation of private easements, and road improvements, to ensure previously existing connectivity between Public or County Roads is maintained.

Policy 22-e: Roads that were dedicated to the County but were never accepted shall be subject to goals, policies, and standards applicable to private roads and easements, unless otherwise specified.

### FINANCING AND RECOMMENDED IMPROVEMENTS

# Goal 23: Maintain long-term County Road Fund stability by making annual budget adjustments and following adopted priorities.

- Policy 23-a: Adjust operating and capital expenditures through the annual budget process to maintain long term County Road Fund viability. Maintain a "prudent person" County Road Fund reserve. An appropriate "prudent person" reserve is generally considered to be 10% to 15% of gross receipts.
- Policy 23-b: Identify and consider additional potential funding sources and strategies, such as a local option gas tax or vehicle registration fee, in the event of loss or reduction of existing funding sources.

# Goal 24: Use the County Road Fund effectively by following the priorities established in the 1991 Road Fund Financial Plan (updated 1995).

- Policy 24-a: As a first priority (Core Program), maintain and preserve the County Road and bridge system.
- Policy 24-b: As a first priority (Core Program), provide a safe roadside environment for the traveling public on the County Road System.
- Policy 24-c: As a second priority (Enhanced Program) and as funding allows, improve the County Road System to meet modern County design and safety standards.
- Policy 24-d: As a second priority (Enhanced Program) and as funding allows, share timber receipt payments from the County Road Fund with Cities for general street purposes and maintenance of City street systems.
- Policy 24-e: As a third priority (Assistance Program) and as funding allows, provide economic development road infrastructure financing to assist in economic development.
- Policy 24-f: As a third priority (Assistance Program) and as funding allows, share timber receipt payments from the County Road Fund, through the CIP process, with cities and ODOT for City or ODOT roadway projects of mutual interest.

# Goal 25: Maintain effective partnering relationships with cities and the Oregon Department of Transportation (ODOT).

- Policy 25-a: Review annually County-City road partnership agreements to maintain road fund viability and to assist cities in providing road services to urban residents in Lane County.
- Policy 25-b: Evaluate existing road project funding agreements with incorporated cities, and make necessary amendments to allocate an appropriate share of system development charges (SDCs) to the County to cover the cost of improvements on County Roads generated by new development.
- Policy 25-c: Engage ODOT in continuing discussions regarding jurisdiction of roadways; partnerships in funding programs; response to ODOT policy initiatives; and partnerships for a seamless service delivery system through sharing of resources, collocation of facilities, or consolidation of functions.

### **CHAPTER 4: TRANSPORTATION SYSTEM FACILITIES**

### 4.1. ROADS

### **Description Of The Road Network**

The principal and most extensive component of the County's transportation infrastructure is the road system. Within Lane County there are a number of different agencies responsible for roads. They include the Oregon Department of Transportation, Lane County, incorporated cities, the U.S. Forest Service, and U.S. Bureau of Land Management.

While the automobile is clearly the predominant mode of transportation served by the County Road system, the road right-of-way accommodates multiple modes of transportation, including freight, cars, buses, bicyclists, and pedestrians. As appropriate, and when legally and financially feasible, County Road improvement projects facilitate alternative modes with sidewalks, marked bike lanes, wider shoulders, and bus stop turn-outs.

This chapter describes County-maintained roads, state highways, and roads other than City streets in Lane County. City street networks are discussed in City Transportation System Plans. Following the road network descriptions are sections regarding Access Management, Level of Service and Roadway Performance, Design Standards, and associated goals and policies.

### **County Roads**

County Roads are those that are maintained by the County after undergoing a formal process of dedication and acceptance by the County Board of Commissioners. There are approximately 1,436 miles of roadway maintained in the County Road system. The County rarely accepts new roads into the County Road system unless there is a clear public benefit and justification for expenditures on maintenance. Decisions about road acceptance are intended to protect the public investment already made in the road system and to make optimum use of available road revenues for the maintenance and improvement of the system. Lane Manual Chapter 15 specifies road dedication and acceptance requirements. New roads must also comply with state land use goals.

The County Road Management Information System (RMIS) provides a variety of data about County Roads, including length, beginning and ending mileposts, status (existing, constructed, or proposed), jurisdiction, agency responsible for maintenance, functional class and maintenance zones. A complete inventory of the County Road system is in Appendix B.

### **Functional Classifications**

Functional classification provides an organizational mechanism for developing roadway design standards, establishing traffic speeds, controlling access, designing intersections, and allocating monies for maintenance and improvements. Roads are categorized in a functional class hierarchy based upon the character and level of service they contribute to the overall transportation system. The hierarchy consists of many smaller roads feeding into a fewer number of major roads. Arterials are major roads designed to move large amounts of traffic at high speeds, with minimal interruption from intersecting roads. Collector roads "collect" traffic from local road systems and connect to the arterial network. Smaller, local roads feed into the collectors and arterials, and are designed to provide access to individual properties, such as private residences, and to discourage through traffic use. A road cannot function on opposite ends of the hierarchy (that is, high volumes and speeds with many intersecting roads and access points) without severely comprising safety and efficiency.

Lane County has established a system of functional classifications for the County Road system. Arterial and collector classifications are identified in Lane Code 15.020. In addition, the County maintains a complete roadway functional classifications inventory.

Lane Code 15.010 defines the various functional classifications as follows:

- Principal Arterials provide for through traffic between major centers of human activity in urban, suburban and rural areas.
- Minor Arterials provide for intra-community traffic flow to principal arterials and within urban areas. In rural areas, minor arterials serve as a direct connection between communities and also bring traffic to principal arterials.
- Major Collectors are used primarily to channel traffic from neighborhoods to arterials, and to commercial or industrial districts in urban areas. In rural areas, major collectors provide connections from outlying areas to the arterial system (primarily state highways).
- Minor Collectors gather traffic within the neighborhood and direct it to major collectors or arterials.
- Local Roads are intended solely for the purpose of providing access to adjacent properties. They may terminate in a cul-de-sac or be part of a larger network.

**Table 1: County Functional Classes Functional Class** Miles 1 - Rural Local 569 2 - Rural Minor Collector 349 3 - Rural Major Collector 152 4 - Rural Major Collector (Federal Aid) 211 5 - Rural Minor Arterial 0 6 - Urban Local 104 7 - Urban Minor Collector 15 19 8 - Urban Minor Arterial 7 9 – Urban Principal Arterial 10 – Urban Major Collector 20 Total 1.446

Table 1 shows the number of miles for each functional class of road maintained by the County:

[Note: adoption of the TSP will result in mileage changes for each functional class for the following reasons. (1) Some roads were incorrectly classified as urban or rural. Corrections have been made so that roads within urban growth boundaries are designated as urban, and all those outside of urban growth boundaries are rural. (2) In addition, some roadways are proposed for changes in functional classification, including the addition of a new functional class – Rural Minor Arterial. See Functional Class maps for proposed changes.]

### Bridges

Lane County has numerous lakes, rivers, creeks and other water bodies. As a result the Lane County Road network includes 413 County-maintained bridges. Lane County has made substantial investment in this system over the past several decades to modernize the system. The Capital Improvement Program has focused on the replacement of structures with wood components. Typically, these wood component bridges were built during the 1960's and 1970's, although some are much older. Replacement of these wooden structures is nearing completion, so that currently approximately 95% of Lane County's bridges are either all concrete or concrete and steel. All concrete means that both the bridge superstructure and substructure are steel-reinforced concrete. Concrete and steel usually means that the bridge superstructure is steel-reinforced concrete and the substructure is, at least in part, steel piling and/or pile caps.

Generally speaking, Lane County bridges are in good condition at this time. 91% of the system is rated in fair or better condition. With an adequate schedule of preventive maintenance, all should have many years of remaining life. Fifty years is the commonly accepted standard for the life of a concrete or concrete and steel bridge. Table 2 below shows the number and construction type of County bridges, including those with posted load limitations.

Bridge Construction Type	Quantity	Percent of System	Structures requiring posted load limits	Percent of System
All Concrete or Concrete/Steel	391	94.7%	1	0.2%
All Timber	2	0.5%	2	0.5%
Concrete/Wood	17	4.1%	9	2.2%
Steel/Wood	1	0.2%		
Steel/Wood/Concrete	2	0.5%		
Totals	413	100.0%	12	2.9%

Table 2: Bridge Statistics

### **Overview of Bridge Investment Issues**

There are several issues that Lane County will have to address over the life of the TSP that will be summarized here. More detail is available in the bridge section of the Needs Assessment in Chapter 6.3.

The Oregon Department of Transportation (ODOT) along with local agencies has been developing a seismic vulnerability inventory and retrofit prioritization program. Recent seismic activity has confirmed that there is a real risk for earthquakes in Oregon. The forces expected now are greater than previously thought. Hence, design codes have been modified to account for the greater forces expected during an earthquake in Oregon. However, many of the bridges currently in service were not designed with the more recent specifications. Retrofitting many of the smaller bridges on the Lane County system will probably be done over time as a major maintenance and preservation activity. Investments in some of the larger structures in Lane County may be required through the Capital Improvement Program (CIP).

Recent inspections have noted two other bridge condition problems that may require substantial capital investment as well. Twenty-four bridges, mostly constructed in the 1950's and 1960's and built with "poured-in-place" reinforced concrete girders, have recently been identified as having a potential for cracking problems. The extent of this cracking and the extent to which it reduces the structural capacity of the bridges is currently under discussion. Recent inspections have also identified a potential problem with steel piling. Some of these pilings have experienced corrosion near the contact point with streams, or "section loss", which reduces load carrying capacity. This may require major maintenance or it may lead to increased investment through the CIP.

There are other reasons for bridge modernization. As traffic demand increases, it becomes necessary to replace one-way bridges with wider structures that can accommodate two-way traffic, bicycles and pedestrians. Newer roadway design standards may call for increased roadway and shoulder width. In that case, it may become necessary to modernize some bridges to meet the new design standards. Bridge replacement or modernization typically addresses safety issues for all modes of transportation. Newer structures are designed with adequate width to accommodate vehicular traffic, bicycles and pedestrians. Greater clearance for sight distance at overpasses and underpasses is also provided. Guardrail flares are tapered to reduce the severity of collisions with the structure. Adequate drainage is also a consideration in bridge design.

### **Covered Bridges**

There are 20 covered bridges in Lane County, giving the County the distinction of having more covered bridges than any other county west of the Mississippi. Fourteen of these bridges are maintained by Lane County, and with the exception of the Lake Creek Bridge, thirteen of these are listed on the National Register of Historic Places. Covered bridges are similar in design to steel truss bridges, however, the shortage of steel during World War I contributed to the use of wood as bridge building material, which allowed for their unique design. Covered bridges were constructed of high quality timber, to withstand heavy rains and salty sea air. House-type structures over the bridges protect the wood trusses and floor planking from the elements and more than double their life expectancy. As early as 1918, plans for covered bridges had become standardized to include open windows for light and ventilation together with such features as laminated floors and interior whitewashing. The covered bridges still standing represent many hours of skilled hand labor.

Over time, some of Lane County's covered bridges have become inadequate for modern traffic levels and commercial loads. In some cases, new bridges have been built adjacent to existing covered bridges to accommodate modern traffic needs. At the same time, this historical and cultural resource is a priority, and a Covered Bridge Fund is included as an item in the Capital Improvement Program in order to preserve this important contribution to Lane County's heritage.

There are fourteen covered bridges on County-maintained roads that still serve vehicular traffic. These bridges and the year they were constructed follow.

Belknap Bridge (1966)	Coyote Creek Bridge (1922)
Deadwood Bridge (1932)	Dorena Bridge (1949)
Earnest Bridge (1938)	Goodpasture Bridge (1938)
Lake Creek Bridge (1945)	Mosby Creek Bridge (1920)
Office Bridge (1944)	Parvin Bridge (1921)
Pengra Bridge (1938)	Unity Bridge (1936)
Wendling Bridge (1938)	Wildcat Bridge (1925)

The remaining six bridges are either under City jurisdiction or are no longer in use. Their status is as follows:

Cannon Street Bridge (1988, not in service, City of Lowell) Centennial Bridge (1987, bikes and pedestrians only, City of Cottage Grove) Chambers Bridge (1925, former railroad bridge not in service, City of Cottage Grove) Currin Bridge (1925, not in service, Lane County) Lowell Bridge (1928, not in service, Lane County) Stewart Bridge (1930, bikes and pedestrians only, Lane County)

### **Operations, Maintenance, and Safety on the County Road System**

The Public Works Operations budget provides for County Road operational maintenance, including repairs, lightduty rehabilitation, and minor improvements. Operations, maintenance, and preservation are routine activities that are generally not listed as individual projects. Examples of operations and maintenance activities are surface and shoulder maintenance, drainage work, vegetation control, guardrail repair, signing, striping, pavement marking, and signal maintenance. Preservation activities include pavement overlays or chip seals (a less expensive surface treatment than pavement overlay) to extend the useful life of the road. Major pavement preservation work (pavement overlay or reconstruction) is contracted out and is funded through the Public Works Capital Improvement Program (CIP).

### Lane County Capital Improvement Program (CIP)

The Capital Improvement Program (CIP) is the planning, funding, and implementation mechanism through which the County improves the County Road network, usually through private sector contracts, for major maintenance and modernization. The CIP is updated and adopted each year. The overall purpose of the CIP is to improve and maintain the County Road network by increasing its safety, utility, and efficiency; to accommodate growth in traffic volumes; reduce maintenance costs, conserve fuel, accommodate alternative transportation modes; and promote community economic development.

Capital improvements are individually listed modernization projects that include such activities as adding capacity, intersection upgrades, bringing roads and bridges up to standards, adding shoulders, and paving gravel roads. The most recently adopted CIP, as well as previous year versions, is available from the Lane County Public Works Department. The CIP publication includes a project list, an explanation of revenues and costs, and a description of the process for annual adoption. Projects in the CIP will be derived from the TSP Project List.

### **Relationship of the CIP to the TSP**

The Transportation Planning Rule (TPR) differentiates between planning and project development. It states that "Transportation system planning establishes land use controls and a network of facilities and services to meet overall transportation needs," while "Transportation project development implements the TSP by determining the precise location, alignment, and preliminary design of improvements included in the TSP."<sup>3</sup>

The TSP provides the overall planning framework for a 20-year horizon. It promotes the coordination of all transportation facilities within the County, including those managed by other jurisdictions and agencies. County Road improvement projects are placed on the TSP 20-year project list based upon the needs assessment criteria described in Chapter 6.3. The TSP project list provides the long range planning foundation for updates to the CIP.

Once a road improvement project is included in the CIP, the project advances to construction through "project development" as defined in the TPR, using the process outlined in Lane Manual Chapter 15.575-15.580.

Not all road improvements under County jurisdiction are identified as part of the Chapter 6.3 Needs Assessment and listed as individual projects on the 20-year project list in the TSP or in the CIP 5-year list. Minor pavement repairs and intersection improvements such as turn lanes, turning radius improvements, and embankment and slide repairs are typically performed by County forces on an as needed basis, and are not usually identified as individual projects. In addition, some projects may be listed in the CIP without being included on the TSP project list. For example, pavement rehabilitation and reconstruction work, and traffic signal installation work, is usually consolidated by geographic area, then contracted out to the private sector through the Pavement Fund or Safety Improvements Fund. Moreover, analysis of County bridges was not part of the TSP Needs Assessment and therefore not included in the project list. The TSP relies on the Bridge Inspection and Load Rating Report and other sources as the assessment tools for bridge project identification and incorporation in the CIP. All of the above projects may proceed as long as they are otherwise consistent with federal, state, and local law, including the TSP and statewide planning goal requirements.

### **Other Roads**

In addition to County-maintained roads there are numerous other public roads in the County under other jurisdictions, and still others that are not maintained or regulated. The following is a general description of these roads.

### **Federal Roads**

There are many miles of federal roads generally constructed for resource management purposes (such as timber production) that are regulated by the U.S. Forest Service and Bureau of Land Management. In addition, Interstate 5 and Highway 101 travel through multiple states. While these highways are part of the national road network, they are managed by ODOT within the boundaries of Oregon.

### **Other Public Roads**

Public roads that are not maintained by the County, and are not Federal, State, or City roads/streets, are usually older roads that were constructed by private individuals for access to property. In many cases, these roads were created before the establishment of state land division laws, or before road improvements became a standard requirement for land divisions. Such roads were dedicated to the County, although many were never formally accepted. They are commonly known as "local access roads", which is defined under ORS 368 as "a public road that is not a county road, state highway or federal road." State law restricts the expenditure of County moneys and also limits the County's liability for these roads.

<sup>&</sup>lt;sup>3</sup> Oregon Administrative Rules 660-012-0010(1)

### **Private Roads**

Private roads are easements over private land, constructed for private access purposes. New roads created within land divisions are generally required to be private, unless there is a clear need for their acceptance into the County Road system.

### **State Facilities**

The State highway classification system, signifying level of importance, consists of interstate, statewide, regional, and district highways. Interstate Highways and Statewide Highways are part of the National Highway System (NHS). In Lane County, there are 438 miles of State-maintained highways of local, regional, and national significance, as shown in Table 3. The corresponding functional classification is also shown. While there is no solid rule for determining functional class based on the State classification, this column indicates the general relationship between the two classification systems.

Name	State Highway Classification	Corresponding Functional Classification	Miles
Interstate 5	Interstate	Interstate	36
I-105 Eugene-Springfield	Interstate	Interstate	2.5
OR 126 Eugene-Springfield	Statewide, Expressway	Principal Arterial	10
OR 69 Beltline Highway	Statewide	Principal Arterial	13
OR 58 Willamette Highway	Statewide	Principal Arterial	62
OR 126 Florence-Eugene	Statewide	Principal Arterial	53
OR 126 McKenzie Highway	Statewide	Principal Arterial	76
OR 126 Clear Lake-Belknap	Statewide	Principal Arterial	7
Springs			
US 101 Oregon Coast Highway	Statewide	Principal Arterial	31
OR 99W Pacific Highway West	Statewide, Regional	Principal Arterial,	22
		Minor Arterial	
OR 99E Albany-Junction City	Regional	Minor Arterial	3
McVay Highway	District	Minor Arterial or	3
		Major/Minor Collector	
OR 99 Goshen-Divide	District	Minor Arterial or	20
		Major/Minor Collector	
OR 36 Mapleton-Junction City	District	Minor Arterial or	50
		Major/Minor Collector	
Springfield-Creswell Highway	District	Minor Arterial or	11
		Major/Minor Collector	
Springfield Highway	District	Minor Arterial or	1
		Major/Minor Collector	
Territorial Highway	District	Minor Arterial or	40
		Major/Minor Collector	

Table 3:	State Highway	Facilities and	Miles in Lar	ne County
	State regimes		1.1100 111 1101	

These highways accommodate freight and other higher-speed, higher-volume travel, and interface with many County-maintained roads. They are used for daily commutes and local trips as well as cross-state movements.

The Oregon Department of Transportation (ODOT) has operation, maintenance, and planning jurisdiction over state and interstate highways. Facility improvements are administered through the Statewide Transportation Improvement Program (STIP), and planning for the state system includes both modal and area-specific planning analysis. Modal plans address automobiles, trucks, freight rail, aviation, bicycles and pedestrians, and intermodal facilities, in addition to a transportation safety action plan. Together, modal and area plans provide the basis for update of the STIP and the prioritization of state project development and resources.

### **Freight Routes**

As noted in the *1999 Oregon Highway Plan*, a primary function of state highways, and in particular the National Highway System, is to support economic development by linking producers, shippers, markets, and transportation

facilities. While County arterial and collector roads regularly serve freight transportation, the National Highway System is particularly important for providing intermodal freight access, such as to airports with freight service and to the Port of Siuslaw. And while freight moves via many transportation modes, trucks handle the bulk of freight movements in Oregon.

### **Scenic Routes**

Under the National Scenic Byways Program, the U.S. Secretary of Transportation recognizes certain roads based on their archaeological, cultural, historic, natural, recreational and scenic qualities. The program was established in Oregon in 1989 by a multi-agency committee, and is administered by the Department of Transportation.

Three Scenic Byways over four state highways extend into Lane County:

- The Pacific Coast National Scenic Byway, along Highway 101 on the Oregon coast, also designated as an All-American Road;
- The McKenzie Pass-Santiam Pass Scenic Byway beginning on the McKenzie Highway (Highway 126) near the McKenzie Bridge Ranger Station, extending east along Highway 242 to Sisters and looping back along Highway 20/126; and
- Aufderheide Drive, a U.S. Forest Service road extending north from Westfir to just east of Blue River, forming a part of the West Cascades Scenic Byway that travels north to Estacada.

Additional information regarding long range state highway planning is included in the TSP Needs Assessment section.

### Access Management Spacing Of Intersections And Driveways On County Roads

Access management generally means managing the location and number of access points on County Roads. It involves the appropriate location, design, and number of road and driveway intersections to allow connectivity between major and minor roads and to allow access to private property, while promoting safety and efficiency in the overall road network.

Any intersection introduces a number of potentially conflicting vehicular movements. Effective access management limits where and how often these conflicts occur. Generally, a higher level of access management is appropriate on collector and arterial roads, where there are higher traffic volumes and speeds. Implementation of access management techniques produces a more constant traffic flow, helping to improve safety, while reducing congestion, fuel consumption and air pollution. As a method for protecting the performance of existing facilities, access management helps to stabilize capacity-related public expenditures for roads and highways.

Access management includes decisions about design elements such as the location of turn lanes, medians, and traffic control devices such as signals and signs. A variety of factors contribute to these decisions. For example, turn lanes may or may not be continuous, and medians may or may not be provided, depending on the functional class of the road, the level of traffic and speed, as well as state land use restrictions and neighborhood preferences. Ultimately, balancing these factors should err on the side of public safety.

Lane County manages access to County Roads through the review of land divisions and other proposed development, and through the issuance of "facility permits", which are required for any construction (such as a new road intersection or driveway approach) within a County Road right-of-way. Access to state highways is governed by Oregon Administrative Rules (OAR) 734, Division 51. Construction within state rights-of-way requires a road approach permit from the Department of Transportation. Cities have authority to manage access to City roads and streets. Since these different systems connect to one another, access management often requires coordination and agreement between transportation agencies. In addition to access management goals and policies included in this chapter, Road and Driveway Spacing Standards in Lane Code Chapter 15.138 regulate access onto the County Road system.

### Level Of Service And System Performance

Roadway performance in Oregon is typically measured using "level of service" (LOS) or "volume to capacity (v/c) ratio" analysis. Level of service (LOS), or mobility<sup>4</sup> is a transportation engineering concept used to evaluate traffic flow (congestion) and to describe the quality of the operating conditions of a roadway. Each road segment has a capacity, or the number of vehicles it can serve over a designated period of time. As traffic volumes approach the road's capacity limit, drivers begin to experience congestion. This results in increased travel time, pollution, and driver aggravation. Various analytical methods are used to evaluate this dynamic to help determine whether roadway improvements or other strategies are needed to achieve or maintain the performance standard adopted by the agency. The analysis may be part of an overall needs assessment for public road improvements, or may be required as part of a traffic impact analysis for a land use development proposal that is expected to result in significant additional traffic.

The *Highway Capacity Manual*, produced by the Transportation Research Board of the National Research Council, Washington, D.C., provides internationally recognized methods for evaluating the performance of various road types. Such analyses may be highly complicated because of the multiple factors that contribute to a road's performance. This section provides a general, simplified overview of approaches used by the State and Lane County.

The Oregon Department of Transportation (ODOT) measures state highway performance based upon the "volume to capacity ratio" (v/c). The v/c ratio is the peak hour traffic volume (vehicles/hour) on a highway section divided by the maximum volume that the highway section can handle (*1999 Oregon Highway Plan*, page 72). A v/c ratio of 1 or more indicates the road segment is at or above capacity.

ODOT standards must be applied to decisions involving state highways in Lane County. Currently, the maximum acceptable v/c ratio for state highways varies between 0.70 and 0.95, as shown in the following table taken from the *1999 Oregon Highway Plan*. Users of the County TSP should check with ODOT to obtain the most current ODOT standards.

nor izon for bu	ite ingliway sections located outside the Forthand metropolitaria area di ban growth boundary					
Highway Category		Land Use Type/Speed Limits				
		Inside U	rban Growth Boundary	ý	Outside Urban Growth Boundary	
	STAs	МРО	Non-MPO outside of STAs where non-freeway speed limit <45 mph	Non-MPO where non-freeway speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	N/A	0.80	0.70	0.70	0.70	0.70
Statewide (NHS) Freight Routes	0.85	0.80	0.75	0.70	0.70	0.70
Statewide (NHS) Non-Freight Routes and Regional or District Expressways	0.90	0.85	0.80	0.75	0.75	0.70
Regional Highways	0.95	0.85	0.80	0.75	0.75	0.70
District/Local Interest Roads	0.95	0.90	0.85	0.80	0.80	0.75

Table 4: Maximum volume to capacity ratios for peak hour operating conditions through a planning	5
horizon for state highway sections located outside the Portland metropolitan area urban growth bounda	ary

Notes:

• Interstates and Expressways shall not be identified as Special Transportation Areas (STAs).

• For the purposes of this policy, the peak hour shall be the 30<sup>th</sup> highest annual hour. This approximates weekday peak hour traffic in larger urban areas.

<sup>&</sup>lt;sup>4</sup> The TSP uses the traditional "Level-of-Service" terminology because of broad familiarity with the term. The *Oregon Highway Plan* uses the more recent term "Mobility". Their meaning is the same and may be used interchangeably.

 The MPO category includes areas within the planning boundaries of the Eugene/Springfield, Medford and Salem/Keizer Metropolitan Planning Organizations, and any other MPO areas that are designated after the adoption of this plan.
 Source: 1999 Oregon Highway Plan, page 80 (see the Oregon Highway Plan for additional explanation of this table)

Level of service is expressed as a letter grade. The Transportation Research Board provides the industry's standard definitions for each letter grade, as in Table 5.

Tuble et Berer er Ser fier Better Orades und Bestimptons				
Level of Service General character of traffic flow conditions				
А	Free flow			
В	Stable flow			
С	Stable flow with more restrictions on maneuverability			
D	High density and marginally unstable flow			
E	Operating conditions at or near capacity			
F	Conditions beyond capacity with poor mobility and congestion			

Table 5: Level of Service Letter Grades and Descriptions
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Source: *Highway Capacity Manual*, Transportation Research Board, National Research Council (2000)

The *Highway Capacity Manual* provides detailed, technical guidance for determining level of service letter grades and for other road performance analyses. Some of the methods for measuring level of service in the *Highway Capacity Manual* are based upon v/c ratios, and some use other measures. Level of service in a given area should include nearby intersections (signalized and unsignalized), road approaches, and/or highway ramps.

Lane County completed a performance assessment for its rural road system in 1997. Levels of service were calculated for two-lane rural collector segments based upon methodology in the 1994 *Highway Capacity Manual*. An overview of the results is presented in the Needs Assessment chapter, and a detailed explanation of the methodology is in Appendix D. Performance of the urban system is addressed in individual City TSPs.

Lane Code 15.696 provides peak hour performance standards, and Lane Code 15.697 provides traffic impact analysis requirements. Traffic impact analyses, when required for proposed plan amendments, zone changes, or land developments, must demonstrate that the maximum volume to capacity ratios specified in Lane Code 15.696 will not be exceeded. Level of service calculations may also be useful in completing the analysis, and may be required by the County. The minimum peak hour level of service standard for Lane County is "LOS D." Where level of service analysis is required, both the v/c ratio standard and LOS D must be achieved or maintained. Achieving or maintaining the v/c standard means the v/c ratio is numerically equal to or less than the v/c ratio in the table in Lane Code (see below). Achieving or maintaining LOS D means the level of service is "D" or better, i.e. "A","B","C", or "D". Failure to meet the standard, or "exceedence" of the standard means that the predicted level of service is "E" or "F". The v/c ratio standards shown below are taken from Lane Code 15.696 and are provided for informational purposes only.

Roadway Category	Location/Speed Limits				
	Inside Urban Growth Boundary			Outside Urban Growth Boundary	
	Eugene-Springfield Metro Area	Outside Eugene- Springfield Metro area where speed limit <45 mph	Outside Eugene- Springfield Metro area where speed ≥45 mph	Within Unincorporated Communities	Outside Unincorporated Communities
Freeways and Expressways	0.80	N/a	N/a	n/a	n/a
Other County Roads	0.85	0.85	0.75	0.80	0.70

Table 6.	Movimum	Volumo to	Consoity	Dation fo	r Dool Hour	Onorating	Conditions on	I one Coun	ty Dood
I able v.	WIAAIIIIUIII	volume to	Capacity	Natios Iu	11 I Cak 110ui	Operating	Conditions on	Lane Coun	ty Kuau

As mentioned above, other analytical methods are sometimes appropriate as part of a traffic impact analysis (TIA). For example, in analyzing urban arterial or collector streets where congestion is more likely to occur, "delay-based" or "queue length" analysis methods may be appropriate. The standards allow for alternative approaches to be used for County facilities, as long as they are approved in advance by Lane County.

While analysis of roadway performance assists in identifying roadway system deficiencies, it does not determine what actions should be taken to address the deficiencies. Examples of actions that might improve performance include the following:

- a. Reconfigure roadway and side-street accesses to minimize traffic conflicts at intersections;
- b. Limit parking near signalized intersections to increase intersection capacity;
- c. Coordinate and operate traffic signals to improve traffic progression;
- d. Relocate driveways and improve local road connections to direct traffic away from overburdened intersections and intersections where side-street capacity is limited in order to optimize traffic progression on the County Road;
- e. Improve turning-radii at intersections that are heavily used by trucks to avoid lane blockages;
- f. Install raised medians to reduce traffic conflicts;
- g. Improve accesses so that traffic can enter or exit the roadway with minimal disruptions of flow;
- h. Implement other transportation demand management or transportation system management measures to use existing capacity of the roadway more efficiently.

### **Design Standards**

New road design standards are being adopted to implement the TSP and to update County Road standards in compliance with the Transportation Planning Rule. The new standards, found in Lane Code Chapter 15.700, will guide the design of County Road improvement projects, as well as road improvements constructed to serve private development. The standards apply to all County-maintained roads, all other public roads that are not Federal, State, or City roads/streets, and private roads. The exception is that City standards may apply to County Roads classified as local roads within urban growth boundaries, such as for subdivisions that will later be annexed.

The new Lane County standards are derived from the following publications:

Publications of the American Association of State Highway and Transportation Officials (AASHTO):

- the 2001 Fourth Edition A Policy on Geometric Design of Highways and Streets;
- *Roadside Design Guide;* and
- 2001 Geometric Design of Very Low Volume Local Roads (ADT < 400)

Oregon Department of Transportation (ODOT) documents:

- The Oregon Bicycle and Pedestrian Plan (1995)
- The 1999 Oregon Highway Plan
- The 1998 Highway Design Manual

The *Eugene Arterial and Collector Street Plan* (November 1999) was also used in developing the design standards.

The following documents will primarily continue to guide engineering decisions for County Roads in the absence of specific design policies and standards:

- A Policy on Geometric Design of Highways and Streets, the Road Design Guide, and the Geometric Design of Very Low Volume Local Roads (ADT < 400) published by AASHTO will continue to be the guide for design elements that are not specified in adopted County standards.
- Decisions about traffic control devices, including traffic signals, pavement markings, signing, and crosswalk marking, will be guided by the Federal Highway Administration's *Manual on Uniform Traffic Control Devices*.
- The Oregon Standard Specifications for Construction provides construction specifications standard for Lane County. Oregon Standard Drawings provides standard drawings to accompany the specifications. These publications were jointly developed and adopted by ODOT and the American Public Works Association (APWA), Oregon Chapter.

• AASHTO's *Guide for Design of Pavement Structures* provide Lane County's standards and procedures for pavement structure analysis and pavement structure design.

The edition and publication year of all documents is cited in Lane Manual Chapter 15.450.

The treatment of roundabouts deserves discussion in this section. Several of the documents above discuss the design and marking of roundabouts. Roundabouts are one possible way to design intersections and control traffic movements at intersections. The construction and use of roundabouts as an intersection control is a relatively new strategy in Oregon and Lane County. There are a few locations where roundabouts are currently in use. Lane County will consider their use on a case-by-case basis where appropriate. If a decision is made to construct a roundabout, it will be designed in accordance with the best current information available regarding the design and application of roundabout concepts. The Federal Highway Administration currently provides guidance in *Roundabouts: An Informational Guide (FHWA-RD-00-067).* Roundabouts, when used, will be signed and marked in accordance with the *Manual on Uniform Traffic Control Devices.* 

The design standards are organized by functional classification, and then according to urban or rural road locations. Urban roads serving denser populations and land uses incorporate provisions for multiple transportation modes, including sidewalks and marked bike lanes. Curbs and gutters are required to handle relatively larger quantities of storm drainage, and to provide space for sidewalk construction and landscaping.

Rural roads with relatively low average daily traffic counts (ADTs) are less likely to serve as commuting routes for walkers and bicyclists, but recreational bicycling is an increasingly popular use of these roads. On these roads the design standards accommodate biking and walking via striped and paved shoulder areas or shared roadways. Ditches adjacent to rural roads provide for drainage and are required to be included in the road right-of-way area.

The County's topography ranges from level to mountainous, and the population varies from an assortment of urban densities in small cities and the Eugene-Springfield area, to relatively sparse settlements in outlying, rural communities. It is typical to find a number of combinations of terrain and ADT on County Roads, and the design standards attempt to address these variations. For example, road width standards on mountainous roads are narrower than those on level terrain because the amount of traffic served is usually less and the costs and environmental impacts of construction are typically higher in these areas.

There are large variations in traffic volume on the County Road system. The design standards take this into account by specifying wider shoulders on higher volume roads while low volume roads have lower minimum width requirements. ADT variations are taken into account in width standards for rural collectors and arterials, as well as urban and rural local roads.

While ADT counts provide information about the amount of traffic on a road segment, they do not indicate the type of traffic. Some roads receive a large amount of heavy truck traffic, which can hasten the breakdown of the road structure. Pavement structure requirements must therefore consider truck traffic as a percentage of total ADT, as well as soil types. Minimum pavement structure standards are designed to take these factors into consideration to preserve the long-term structural integrity of County Roadways.

Finally, unique circumstances may arise making it difficult or impossible to meet a given design requirement. As such, Design Standard provisions include procedures to request approval to deviate from the standards. It is important to note that the review of requests for deviations to the standards does not apply to land use decisions as defined in Lane Code chapter 14.015 or ORS 197.015.

### **Goals And Policies: Roads**

Goal 1: Maintain the safety, physical integrity and function of the County Road network through the routine maintenance program, the Capital Improvement Program, and the consistent application of road design standards.
- Policy 1-a: Road operations, maintenance, repair, and preservation activities shall be a priority of the Public Works Operations budget and shall be routinely carried out to protect the public investment in, and to ensure adequate functioning of the County Road network.
- Policy 1-b: Continue to implement the Capital Improvement Program including yearly adoption to address changing conditions, modified project schedules, the addition of new projects, and project completion.
- Policy 1-c: Safety shall be the first priority in making decisions for the Capital Improvement Program and for roadway operations, maintenance, and repair.
- Policy 1-d: The requirements of Lane Code 15 shall be consistently applied to all public and private road improvement projects. In the absence of a County-adopted standard for a particular design element, the edition specified in Lane Manual 15.450 [\*\*]of the following primary documents shall be the basis for road design, construction, signing and marking decisions:
  - (i) The following documents, published by the American Association of State Highway and Transportation Officials (AASHTO):
    - (a) A Policy on Geometric Design of Highways and Streets;
    - (b) *Roadside Design Guide*;
    - (c) Geometric Design of Very Low Volume Local Roads (ADT  $\leq$  400); and
    - (d) *Guide for Design of Pavement Structures.*
  - (ii) The *Manual on Uniform Traffic Control Devices (MUTCD)* published by the Federal Highway Administration.
  - (iii) The following additional documents published by the Oregon Department of Transportation (ODOT) and the American Public Works Association (APWA), Oregon Chapter:
    - (a) Oregon Standard Specifications for Construction (ODOT & APWA);
    - (b) Oregon Standard Drawings (ODOT & APWA);
    - (c) ODOT Highway Design Manual;
    - (d) ODOT *Hydraulics Manual*;
    - (e) ODOT *Hydraulics Manual, Volume 2* (Erosion and Sediment Control);
    - (f) Oregon Bicycle and Pedestrian Plan (ODOT, 1995); and
    - (g) 1999 Oregon Highway Plan (ODOT).
  - (iv) The Highway Capacity Manual 2000 published by the Transportation Research Board.
  - (v) The *Trip Generation*, 7<sup>th</sup> *Edition* manual published by the Institute of Traffic Engineers.
- Policy 1-e: Road improvement projects shall consider and, as financially and legally feasible, integrate improvements for alternative transportation modes such as sidewalks, bike lanes, and bus stop turnouts, consistent with adopted road design standards.
- Policy 1-f: Maintain County arterial and collector roads sufficiently for the safe and efficient movement of freight, consistent with applicable traffic impact analysis, design policies and standards and land use regulations.
- Policy 1-g: Maintain and improve roads consistent with their functional classification. Reclassify roads as appropriate to reflect function and use.
- Policy 1-h: City standards shall apply to County Roads functionally classified as local roads within urban growth boundaries. In the absence of City standards, the County's road design standards shall apply.

## Goal 2: Promote a safe and efficient state highway system through the State Transportation Improvement Program and support of ODOT capital improvement projects.

- Policy 2-a: Safe movement of vehicles on the state system and, where allowed, bicyclists and pedestrians shall be a priority. Lane County supports development and implementation of ODOT projects that improve the safety, operation, and structural characteristics of the state highway and bridge system, provided they are consistent with the TSP and applicable federal, state, and local regulations.
- Policy 2-b: The County shall coordinate, as appropriate, with ODOT in:
  - plan development;
  - managing the existing state system; and
  - designing and developing facility improvements on the state system in Lane County.
- Policy 2-c: The County supports the preservation of the natural, historic, cultural, and recreational values of federally designated Scenic Byway routes maintained by ODOT.
- Policy 2-d: ODOT safety, preservation and modernization projects on the state system shall be consistent with Policies 2a-c above, and need not be identified in the Lane County TSP 20-year Project List.

#### Goal 3: Promote a safe and efficient road network through access management.

- Policy 3-a: Access decisions will be made in a manner consistent with the functional classification of the roadway.
- Policy 3-b: Access Management policies and spacing standards found herein and in Lane Code 15.130 shall apply to all new development, changes of use, and road and driveway approach locations within County Road rights-of-way. For state facilities, the Oregon Department of Transportation controls access pursuant to Oregon Administrative Rules 734, Division 51.
- Policy 3-c: Development within a County Road right-of-way, including but not limited to excavation, clearing, grading, utility placement, culvert placement or replacement, other stormwater facilities, and construction or reconstruction of road or driveway approaches, is allowed only upon approval of a facility permit.
- Policy 3-d: Properties adjacent to County Roads shall be granted reasonable access subject to access management and other applicable policies and standards herein and in Lane Code. Where access is available from more than one road, access shall be taken from the road with the lower functional classification as defined in Lane Code 15.020(2), unless otherwise approved by the County Engineer or designee.
- Policy 3-e: Decisions regarding placement, location, relocation, and spacing of traffic control devices, including but not limited to traffic signals, turn lanes, and medians shall be based upon accepted engineering practices as provided for in the edition specified in Lane Manual 15.450 of the following documents: The Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, the *Oregon Standard Drawings* published by the Oregon Department of Transportation (ODOT) and American Public Works Association (APWA), and *A Policy on Geometric Design of Highways and Streets* published by the American Association of State Highway and Transportation Officials (AASHTO).
- Policy 3-f: New development shall accommodate on-site traffic circulation on the site and not by circulating on and off the site through multiple access points using the public road system.

"Backing out" maneuvers should be avoided for new driveways on all urban arterials and rural major collectors.

#### Goal 4: Maintain acceptable road performance levels.

Policy 4-a: The performance standard on County-maintained roads shall be as represented in the following peak hour volume to capacity ratio (v/c) table from Lane Code 15.696. Given adequate funding for public road improvements and as a secondary priority to safety improvements, this standard should be maintained in making decisions about public road improvement projects or implementation of other programs and strategies that mitigate traffic.

Tuble 77 islusinian volume to suparty station for Featuring containing on Easter County Routes									
Roadway Category	Location/Speed Limits								
	Insi	de Urban Growth Bound	ary	Outside Urban Growth Boundary					
	Eugene-Springfield Metro Area	Outside Eugene- Springfield Metro area where speed limit <45 mph	Outside Eugene- Springfield Metro area where speed ≥ 45 mph	Within Unincorporated Communities	Outside Unincorporated Communities				
Freeways and Expressways	0.80	n/a	n/a	n/a	n/a				
Other County Roads	0.85	0.85	0.75	0.80	0.70				

Table 7: Maximum Volume to Capacity Ratios for Peak Hour Operating Conditions on Lane County Roads

Policy 4-b: In analyzing arterial or collector streets, peak hour level of service analysis methods may be appropriate. Level of service "D", using the analytical approaches in the Transportation Research Board *Highway Capacity Manual* is the standard of performance to be achieved or maintained, and not exceeded. Not exceeding LOS "D" means achieving or maintaining LOS "A", "B", "C", or "D". When such analysis is required, both the v/c standard in Lane Code 15.696 and LOS D must be met. The standards and procedures to be used in a particular study shall be approved in advance by Lane County Public Works according to the procedures in the Traffic Impact Analysis Guidelines of the Public Works Engineering Division.

## Policy 4-c: A traffic impact analysis shall be required as part of a complete land use application based upon the requirements of Lane Code 15.697, for any of the following:

- (i) any development proposal that, if approved, will result in an increase in peak hour traffic flow of 50 or more automobile trips outside an urban growth boundary, or 100 or more automobile trips inside an urban growth boundary. The increase in number of trips shall be calculated based upon the methodology in the Institute of Traffic Engineers' *Trip Generation* manual for the year of publication specified in Lane Manual Chapter 15.450 and associated handbook and user's guide;
- (ii) development proposals that will affect County Roads where congestion or safety problems have been identified by previous traffic engineering analysis;
- (iii) any plan amendment proposal, unless waived by the County Engineer as specified below;
- (iv) proposed development that will generate or receive traffic by single or combination vehicles with gross weights greater than 26,000 pounds as part of their daily operations.
   "Daily operations" includes delivery to or from the site of materials or products manufactured, processed, or sold by the business on the site. "Daily operations" does not include routine services provided to the site by others, such as mail delivery, solid waste pickup, or bus service.

The County Engineer or designee may waive traffic impact analysis requirements specified above, when:

- (i) Previous analysis has determined that the development proposal will not result in congestion, safety, or pavement structure impacts that exceed the standards of the agency that operates the affected transportation facilities; or
- (ii) In the case of a plan amendment or zone change, the scale and size of the proposal is insignificant, eliminating the need for detailed traffic analysis of the performance of roadway facilities for the 20-year planning horizon. Whether the scale and size of a proposal may be considered insignificant may depend on the existing level of service on affected roadways. Generally, a waiver to Traffic Impact Analysis will be approved when:
  - (a) the plan designation or zoning that results will be entirely a resource designation; or
  - (b) the plan designation or zoning that results will be entirely residential and the allowed density is not likely to result in creation of more than 50 lots; and
  - (c) there is adequate information for the County Engineer or designee to determine that a transportation facility is not significantly affected as defined in Policy 20-d.
- Policy 4-d: When a traffic impact analysis is required,
  - (i) it shall evaluate all affected County Road facilities where direct access is proposed, including proposed access points and nearby intersections.
  - (ii) it shall be prepared by an Oregon-certified engineer with expertise in traffic and road construction engineering.
  - (iii) it shall document compliance with the Road Design Standards in Lane Code 15.700-15.708.
  - (iv) it shall document compliance with the goals and policies of the applicable Transportation System Plan.
  - (v) the County Engineer may alter the study requirements based upon the anticipated impact of the proposal. For example, a queue length analysis (based upon 95% probability) may be required.
  - (vi) the traffic impact analysis requirements shall be coordinated with other affected jurisdictions and agencies, such as the Oregon Department of Transportation or a City.
  - (vii) traffic engineers preparing traffic impact analyses shall request approval of the scope of the analysis before proceeding with the analysis, as specified in the Traffic Impact Analysis Guidelines of the Public Works Engineering Division.

Policy 4-e: When a traffic impact analysis is required,

- (i) for plan amendments, it shall demonstrate that the performance standard in Policy 4-b for the affected County Road will not be exceeded within 20 years from the date the analysis is completed as a result of approval of the plan amendment or zone change. If the performance standards are already exceeded at a location affected by the plan amendment, the standard shall be to avoid further degradation of conditions;
- (ii) for other proposed land use development, it shall demonstrate that the performance standard in Lane Code 15.696 for the affected County Road will not be exceeded immediately and for the next five years.
- (iii) if the analysis must include an evaluation of the impacts of heavy vehicles pursuant to Policy 4-c (iv), it shall be based upon the procedures for pavement structure analysis in Lane Code 15.707.
- (iv) Traffic impact analyses, and mitigation for traffic impacts on transportation facilities shall comply with adopted plans and codes of the agency with jurisdiction for the affected facility.
- (v) If the performance standard in Policy 4-b cannot be achieved or maintained as specified in (i) or (ii) above, the traffic impact analysis shall propose road dedications and improvements for capacity increases, implementation of demand management strategies, or other mitigation measures. The proposal shall include a description of

how and when the improvements or measures will be implemented. Any proposed road improvements shall be consistent with applicable state and local policies and standards. Examples of mitigation actions are in Chapter 4.1 in the *Level of Service and System Performance* subsection. Conditions may be assigned to ensure such improvements or measures will be implemented.

Any requirements by the County resulting from an approved traffic impact analysis shall be the responsibility of the applicant unless otherwise approved by the County.

- Policy 4-f: The Transportation Research Board's *Highway Capacity Manual*, for the year of publication specified in Lane Manual 15.450, is the standard of practice for traffic impact analyses. The Highway Capacity Software (HCS) published by McTrans Center for Microcomputers in Transportation, or other approved software, may also be used. SIGCAP published by ODOT, or other ODOT-approved software is acceptable when analysis of both State and County facilities is required.
- Policy 4-g: ODOT policies and mobility standards shall be applied to decisions affecting state highways in Lane County. Applicable standards from City Transportation System Plans (TSPs) shall be applied to decisions about City streets.
- Policy 4-h: Traffic impact analyses shall be based on proposed access points consistent with County access management policies and standards specified herein and in Lane Code 15.130-15.139. Traffic impact analyses shall also consider the safe operation of affected driveways and public street intersections. Proposals requiring traffic impact analysis shall include a review of consistency with Access Management policies and standards as part of the approval of the scope of the analysis.
- Policy 4-i: When analyzing signalized intersections, locations where signal warrants may be met, or intersections with all-way stop control (AWSC), the primary objective is to maintain the performance of the overall intersection. The overall intersection v/c ratio must meet the applicable standard. If level of service analysis is required, the level of service standard must also be met. At unsignalized intersections and road approaches with two-way stop control (TWSC), the object is to achieve or maintain the v/c ratios specified in Policy 4-a for the approaches that are not stopped. Approaches at which traffic must stop, or otherwise yield the right of way, shall be operated to maintain safe operation of the intersection and all its approaches and shall not exceed a v/c ratio of 0.95 within urban growth boundaries and a v/c ratio of 0.80 outside of urban growth boundaries. If public side streets or private driveways are predicted to exceed the standards, mitigation measures shall be recommended. If side street or driveway performance is predicted to exceed standards in order to maintain flow on the major street, adequate space for vehicle queuing (based upon 95% probability) must be maintained on the side street or driveway. At the intersection of a County Road and a State highway, State highway standards must be maintained for the State highway.

#### Goal 5: Promote a safe, functional, and well-maintained bridge network in Lane County.

Policy 5-a:	Conduct bridge inspections in compliance with Federal Highway Administration and Oregon Department of Transportation requirements.
Policy 5-b	Maintain an inventory of all County structures including inspection records showing load ratings, general condition, and sufficiency ratings.

Policy 5-c: Consider the inclusion of bridges in the Capital Improvement Program if they are structurally or functionally deficient based upon bridge general condition ratings, roadway width, bike/pedestrian passage, load capacity, safety, and operating conditions.

- Policy 5-d: Conduct routine maintenance and repair to ensure bridge integrity over the duration of its design life.
- Policy 5-e: Consider the needs of the trucking industry when maintaining, building, or reconstructing bridges.
- Policy 5-f: Maintain and restore Lane County covered bridges for their historic, aesthetic and cultural value as feasible, through budget allocations to the Capital Improvement Program or other funding sources.

## 4.2. BICYCLE AND PEDESTRIAN FACILITIES

Bicycle and Pedestrian facilities are most important within urban areas, where destinations are closer together and bicycling and walking are practical commuting modes. However, also providing these facilities in rural areas encourages bicycling and walking, especially to local destinations within <sup>1</sup>/<sub>4</sub>-<sup>1</sup>/<sub>2</sub> mile, and for recreation and fitness. This section describes the bicycle and pedestrian facilities within Lane County. Chapter 6.3, Needs Assessment Methodology and Results, describes how bicycle and pedestrian facilities are provided for in road construction or reconstruction projects.

## **Types of Bikeways**

There are four types of on-road bicycle facilities in the Oregon Bicycle and Pedestrian Plan. Lane County generally uses the first three types on the County roadway network:

- Shared roadways the travel lane is the same for motor vehicles and bicycles/pedestrians;
- (Rural) Paved shoulders a portion of each paved travel lane is delineated by the fog line;
- Urban bicycle lanes are delineated by a thicker white line between the curb and the travel lane and typically include stenciling on the pavement and/or signage;
- Multi-Use Paths are separated off-street paths provided within road rights-of-way for a limited number of selected projects.

### **Types of Walkways**

There are three types of on-road walkway facilities in the Oregon Bicycle and Pedestrian Plan used by pedestrians and persons in wheelchairs:

- Sidewalks are constructed along roadways in conjunction with a curb and/or planting strip;
- Shoulders typically serve as pedestrian facilities along rural roadways;
- Multi-use off-street paths are provided within road rights-of-way for a limited number of selected projects.

Off-road bicycle and pedestrian paths also exist throughout Lane County. Information about Lane County's efforts with regard to recreational path development is included below in this chapter.

## Pedestrian and Bicycle Facilities within Urban Growth Boundaries

The road design standards to be adopted concurrently with the TSP were developed consistent with guidelines found in the 1995 Oregon Bicycle and Pedestrian Plan. Sidewalks and bicycle lanes are routinely required on all new or reconstructed arterial and collector County Roads within urban growth boundaries. City comprehensive plans and development standards generally require sidewalks and bicycle lanes. Within urban growth boundaries, City standards apply to local roads, and in the absence of City standards, County standards for urban local roads apply. New urban local roads are required to include sidewalks. Sidewalks are included in reconstruction plans for existing urban local roads if there were already sidewalks along the road, or if there is a demonstrated need to add sidewalks. In these instances, the sidewalks shall be constructed at the expense of the abutting property owners. County standards for urban local roads allow shared roadways for bicycle use.

Bicycle and pedestrian facility needs on County Roads inside urban growth boundaries are incorporated into the Transportation System Plans for the corresponding cities within Lane County. The Project List in Chapter 6.4 also includes these proposed bicycle and pedestrian facility improvements.

## **Rural Lane County Bicycle and Pedestrian Facilities**

In rural areas, bicycle and pedestrian travel is more likely to be recreation or fitness-oriented, due to the distance between origins and destinations. The combination of an extensive rural roadway system and relatively low traffic volumes encourages recreational cycling in Lane County. The County includes paved shoulders on new or reconstructed rural arterial and collector roads to accommodate non-motorized travel.

Generally, sidewalks are not provided along rural County Roads although they may be provided where there is a demonstrated need in unincorporated communities and in other areas of concentrated commercial, industrial, residential, or institutional development. This will be determined on a case by case basis. Marked crosswalks are provided on County Roads where there are signalized intersections and at school crossings.

Lane County's rural bikeway and pedestrian system includes bike lanes, paved shoulders, and shared roadways. Due to constitutional limitations on road funds, Lane County does not provide off-street multi-use paths in rural areas. All streets are part of the bicycle network unless bicyclists are prohibited by law from using a road or bridge. Some County Roads have paved shoulders that bicyclists can use. However, most rural collector roadways have no paved shoulders and are therefore shared roadways. Appendix C is a map showing City, County, and State roads in the County's bicycle network. The map includes information about topography, road conditions, bicycle facilities, traffic levels, and recreational travel destinations and loops. The County Roads Inventory, Appendix C, indicates whether roads include shoulder area for bicycle and pedestrian use. The Needs Assessment in Chapter 6.3 indicates that many arterials and collectors do not meet minimum width standards. For newly constructed or reconstructed County rural arterial and collectors, the following lane widths for motorized travel, and shoulder widths to serve non-motorized needs, are required:

Terrain	Lane Width (2)	Shoulder (2)	Total Pavement Width					
	<250 Average	Daily Traffic (AD1	.)					
Level	11	2	26					
Rolling	11	0	22					
Mountainous	10	0	20					
	250	-400 ADT						
Level	11	4	30					
Rolling	11	2	26					
Mountainous	11	0	22					
	400-	1500 ADT						
Level	11	6	34					
Rolling	11	4	30					
Mountainous	11	2	26					
	1500-	10,000 ADT						
Level	12	6	36					
Rolling	11	6	34					
Mountainous	11	4	30					
>10,000 ADT								
Level	12	8	40					
Rolling	12	6	36					
Mountainous	12	4	32					

Fable 8: Required Lane and Shoulder Width on Lane Could	unty Rural Arterial and Collector Roads
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The Needs Assessment in Chapter 6.3 describes how bicycle and pedestrian needs were evaluated for developed areas outside of urban growth boundaries. The Project List in Chapter 6.4 includes proposed bicycle and pedestrian facility improvements for County Roads.

Lane County also participates in off-road trail development, primarily for recreational users, through the County Parks Division. In the late 1990's, Lane County cooperated with several entities under the leadership of the Bureau of Land Management in the development of a segment of the Row River trail, a walking, bicycling, and equestrian trail, on an abandoned railroad bed. Lane County assisted in providing access to the trail from the County Road system at several locations and to a public park that was under County management at that time. The County also improved the Dorena Covered Bridge and made it into a County rest area as a nearby asset of the trail. Another prominent area where the County promotes trail development and use is at Mount Pisgah/Buford Park. Mt Pisgah has over 16 miles of hiking/equestrian trails. It is also part of the Eugene to Pacific Crest Trail (EPCT) system which runs from Alton Baker Park to the Willamette National Forest near Oakridge. The County Parks Division has been working with the City of Eugene to develop a plan and future funding to connect the EPCT to Eugene's Ridgeline Trail and to the City's bike path that extends west of town to the County Park system on Fern Ridge Reservoir.

## **Goals And Policies: Bicycle And Pedestrian Facilities**

- Goal 6: Provide safe and convenient opportunities for bicycle and pedestrian travel throughout Lane County.
  - Policy 6-a: Marked bicycle lanes are required on urban arterial and collector streets when those streets are newly constructed, are reconstructed to urban standards, or are widened to provide additional vehicular capacity.
  - Policy 6-b: Sidewalks or paved pathways accompanying public streets and roads are necessary wherever significant conflicts with motor vehicle traffic jeopardize the health, safety and welfare of pedestrians and bicyclists.
    - (i) Generally, sidewalks are not provided along rural County Roads (outside of urban growth boundaries) although they may be provided where there is a demonstrated need in unincorporated communities and in other areas of concentrated commercial, industrial, residential, or institutional development. This will be determined on a case by case basis.
    - (ii) County arterial and collector roads within urban growth boundaries shall include sidewalks and the cost shall be assessed to the abutting property owners, unless the assessment is waived by the Board of County Commissioners.
    - (iii) Sidewalks on new or reconstructed County Roads functionally classified as local roads within urban growth boundaries shall be required as provided for in City development standards. In the absence of City standards, sidewalks are required for new roads or reconstructed roads with existing sidewalks. Sidewalks shall also be required for reconstructed urban local roads without existing sidewalks, except if the cost would be excessively disproportionate to the need or probable use, or if sparsity of population, other available ways or other factors indicate an absence of any need for sidewalks. Sidewalks shall be constructed at the expense of the developer or adjacent property owners.
    - (iv) Roads which do not have curbs and gutters and which are not scheduled to be rebuilt, but which do have a significant need for sidewalks, may be provided with temporary asphalt walkways.
  - Policy 6-c: Public Works staff should work with school district personnel to establish school route plans. Based on these plans, Lane County will install appropriate traffic control devices, such as signs, crosswalks or other markings, or other devices as approved by the Traffic Engineer.
  - Policy 6-d: New development subject to Site Review and Land Division requirements shall provide adequately for safe bicycle and pedestrian on-site circulation and off-site transportation connections. Development shall provide for safe and convenient on-site circulation with respect to the location and dimensions of vehicular, bicycle, and pedestrian entrances, exits, drives, and walkways in relation to each other and to buildings and other facilities. Consideration shall be given to the need for lighting, sidewalks, widening and improving abutting streets, bus stop access, and bicycle lane and pedestrian path connections, consistent with adopted access management, road and driveway spacing standards, road design standards, and other requirements in Lane Code 15.
  - Policy 6-e: All new development within urban growth boundaries, when adjacent to County-maintained road rights-of-way, shall include bicycle and pedestrian facilities as specified in the Road Design Standards for Urban Roads in Lane Code 15.
  - Policy 6-f: The County generally will support State projects that include bicycle and pedestrian facilities.

## Goal 7: Promote logical and efficient bicycle and pedestrian connections within the Lane County transportation system and between the County's and other jurisdictions' transportation systems.

Policy 7-a:	In planning and implementing transportation system improvements, Lane County will
	coordinate with other affected jurisdictions to maximize bicycle and pedestrian route
	connectivity.

Policy 7-b: The County will look for opportunities to partner with ODOT and City agencies on bicycle and pedestrian facilities when roads of different jurisdictions intersect, in order to provide adequately for bicycle and pedestrian travel to local destinations.

#### Goal 8: Promote connectivity between non-motorized and other transportation modes.

Policy 8-a: In the design and construction of transportation facilities, barriers to foot and bicycle travel should be avoided.

# Goal 9: Encourage and support the development of recreational bicycling and hiking facilities, recognizing these activities as important to community livability and to the tourism sector of the local and state economy.

- Policy 9-a: Road maintenance decisions will strive to balance the need for controlling long term pavement maintenance costs with consideration for providing improved road surfaces for cycling.
- Policy 9-b: Road improvement projects identified on the TSP Project List shall incorporate shoulders and sidewalks adequate for pedestrian use, consistent with other TSP policies and with road design standards to be adopted concurrently with the TSP.
- Policy 9-c: Within statutory road fund limitations, the County will consider opportunities to participate in off-road bicycle trail and footpath development and promotion, when there is adequate demand and as economically feasible.
- Policy 9-d: On a case-by-case basis, and within statutory road fund limitations, the County will consider the feasibility of establishing or maintaining access ways, paths, or trails prior to the vacation of any public easement or right-of-way.

## 4.3. PUBLIC TRANSPORTATION

## Fixed Route Rural Transit Service (Lane Transit District)

Lane Transit District (LTD) was formed in 1970 and was authorized by the Oregon Legislative Assembly to serve all of Lane County. As of this publication, LTD operates 55 bus routes throughout the Eugene-Springfield Metro Area as well as providing rural service to and from the Eugene-Springfield area for the communities of McKenzie Bridge, Veneta, Junction City, Coburg, Cottage Grove and Lowell. Rural routes typically have a morning, midday and early evening run.

All buses have bicycle racks and are wheelchair accessible. LTD currently transports approximately 15,000 bicycles monthly.

Rural LTD routes all operate out of the downtown Eugene station, primarily on state highways and major collector and arterial roads. Following is general route information, subject to change by LTD.

**91 - McKenzie Bridge** travels along Highway 126 east, with four buses in each direction on weekdays and two buses on Saturdays and Sundays.

**92 - Lowell via Dexter, Pleasant Hill and Lane Community College** travels along Highway 58, with four buses from Eugene to Lowell and five buses returning, on weekdays only.

**93 - Veneta** operates on Highway 126, Territorial Road/Highway, Clear Lake Road, Fir Butte Road, Royal Avenue, and Green Hill Road with six buses in each direction on weekdays and two buses on Saturdays.

**95 - Junction City** travels generally on River Road and Highway 99, with six buses on weekdays in each direction and two buses on Saturdays.

**95x - Junction City Express** travels generally on Highway 99 with 4 buses in each direction on weekdays.

**96 - Coburg** travels generally along Coburg Road between Eugene and Coburg, including 8 stops, with six buses on weekdays.

**96x - Coburg Express** travels along I-105 and I-5 stopping only in Eugene and at Monaco Coach, with one bus in each direction.

**98** - **Cottage Grove** travels generally on I-5 and also serves **Creswell**, with 7 weekday buses, 3 buses on Saturday, and 2 buses on Sunday.

**Diamond Express** began in March 2003 and offers weekday commuter van service between the City of **Oakridge** and downtown Eugene. It is operated by Special Mobility Services with the assistance of a one-year grant from the ODOT intercity grant program.

LTD staff indicate that the demand for rural transit is sufficient to warrant an increase in service. By increasing ridership on the bus system, there is an opportunity to reduce vehicle miles traveled.

It is in the County's interest to support and encourage the expansion of public transit and other alternative modes as a way to reduce vehicle miles traveled and thus demand on the road system. However, financial and legal obstacles constrain local efforts to increase rural fixed-route transit service levels. LTD operations are primarily funded by payroll taxes collected from the service area, and state law limits this rate to 0.06%. Furthermore,

payroll taxes are particularly sensitive to economic cycles. As a result, LTD is now experiencing budgetary shortfalls, and is implementing for a system-wide service reduction in late 2002. Although it is anticipated that there will be no reduction in rural route services, neither will there be an increase in the near term. Nor do rider fees cover all costs. Rural bus service is also dependent on the limited ability of businesses in outlying service areas to pay special tax assessments. The cities of Oakridge and Florence have chosen not to be annexed into the LTD service district and pay no special tax assessments. The lack of funds from these communities inhibits LTD's ability to provide services there.

The Oregon Constitution also limits the use of County, City, and ODOT highway user fees to road-related purposes. Transit operations, facilities, or capital improvements are not legal uses of these funds. Federal transportation and transit resources are generally available for capital improvements or fleet purchases, but not for transit operations. County or state general fund resources could be allocated to transit services, but other demands on the County's limited budget mean that the County looks to LTD to finance public transit operations.

### **Commuter Solutions Program**

Coordinating local government agencies to promote alternatives to the single occupant vehicle is the responsibility of the staff of the Commuter Solutions Program housed at Lane Transit District's offices. With funding assistance from ODOT, Commuter Solutions is the regional transportation demand management (TDM) program. Local agencies contribute staff time and the local grant match for the program's operating budget (approximately \$200,000 for 2002). The County is a financial partner in the program and serves on its TDM Advisory Committee.

Alternative transportation educational programs, vanpooling, carpooling, and group discount transit passes are a few examples of the many Commuter Solutions services and programs available within the region. In the year 2000, Commuter Solutions introduced a vanpool between Eugene and Corvallis. That same year, Commuter Solutions coordinated with Oregon Cascades West Council of Governments and Mid-Valley Rideshare (Salem) to begin operation of Eugene-Salem and Eugene-Corvallis vanpools. The latest vanpool to begin operation is from Cottage Grove/Creswell to Eugene. Commuter Solutions staff is now embarking upon a vanpool program to service Oakridge and Highway 58 area residences and employees.

The Commuter Solutions program strategic goals for 2002-2005 are:

- 1. Increase participation in alternative modes
- 2. Consider the use of parking management strategies in selected areas
- 3. Implement TDM strategies at key congested locations
- 4. Create TMD Infrastructure Supported by Regional Jurisdictions

### **Bus Rapid Transit**

Perhaps the most anticipated and innovative new LTD program is Bus Rapid Transit (BRT), which uses a combination of bus lanes, guideways, and traffic priority measures to provide high frequency, fast bus service that emulates light rail. In 1998, Congress provided \$8.8 million for development of BRT, and it emerged as the preferred strategy for reducing vehicle miles traveled as part of the *Eugene-Springfield Regional Transportation Plan (TransPlan)* update.

## **Special Transportation Needs**

LTD is the governing body for the receipt of State Special Transportation Funds for the Elderly and Disabled (STF). Through the Special Transportation Program LTD contracts with providers of curb-to-curb and door-todoor transportation services for people who are unable to use regular fixed-route buses due to a disability or because they reside in areas of Lane County without public transportation. In addition to funded programs, transportation to and from medical facilities using volunteer drivers is provided throughout Lane County with collaboration between LTD, Senior & Disabled Services Outreach Program (a division of the Lane Council of Governments), Lane Community College's Senior Companion Program, and volunteer citizens. The following transportation services are available for elderly, disabled, and other residents with specialized transportation needs in the more populated areas of Lane County:

- **Ride***Source* is a curb-to-curb transit service for eligible riders traveling within Eugene-Springfield, and the River Road area. Special Mobility Services (SMS) is a private non-profit agency that operates Ride*Source* and associated programs through a contract with Lane Transit District. Ride*Source* complies with federal Americans with Disabilities Act (ADA) requirements.
- The **Ride***Source* **Shopper** is a once a week shopping service for elderly and disabled residents of Eugene, Springfield and Coburg that offers assistance with grocery and other purchases.
- Special Mobility Services also administers the **Ride***Source* **Escort** program using their own volunteers and those associated with other cooperating agencies. Volunteers use their own vehicles and receive a mileage reimbursement to transport elderly and disabled residents to and from medical appointments. Areas served include Eugene, Springfield, the River Road area, Veneta, Cottage Grove, Creswell, Junction City and Florence. Whenever possible residents in other rural areas of the County are served.
- South Lane Wheels is a private non-profit organization providing dial-a-ride service to residents of Cottage Grove, Creswell, and nearby rural communities, and transporting the elderly and people with disabilities to and from medical appointments in Eugene-Springfield. Local dial-a-ride service is open to the general public.
- The **City of Oakridge** contracts with LTD to run a two van service for elderly and disabled residents for local travel needs, and for medical and shopping services in the Eugene-Springfield area.
- The **Rhody Express** operated by River Cities Taxi is a local shuttle serving Florence. It has evolved from a special transportation needs service to serving the City's general population. It runs Monday through Friday from 10:00 a.m. to 4:00 p.m. using a deviated route system. This is a flexible system that allows riders who have difficulty getting to bus stops to call and request to be picked up at home. Deviations are limited to three blocks within the defined service area. Rhody Express uses set time points and flag stops to create a fixed-route environment with curb-to-curb flexibility, and also meets ADA accessibility requirements.
- **Friends of Florence Van** is operated by volunteers who transport cancer patients between Florence and the Eugene Cancer Center Monday through Friday.
- Medicaid offers transportation services to qualifying persons requiring medical services.
- The **Oregon Health Plan** coordinates with service providers to fund medical-related transportation.
- Senior and Disabled Services, a division of Lane Council of Governments, coordinates volunteer medical rides.
- Veteran's Transportation assists veterans in the Florence area.

## **Intercity And Interstate Bus Transportation**

Greyhound Line and Porter Enterprises coordinate operations to provide intercity and interstate bus service from Eugene between bus terminals, to the Amtrak station in Eugene, and to points throughout the state. Greyhound Line travels generally north and south, and Porter operates out of Coos Bay, traveling up the coast through Florence, into Eugene, and to points east.

## Passenger And High Speed Rail Transportation

The National Railroad Passenger Corporation (Amtrak) provides intercity and interstate rail passenger service two to four times a day to points north and south. Since 1976, the U.S. Congress has required planning and provided funding for rail transportation through passage and reauthorization of a series of legislative acts. Most recently, in 1991, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which greatly expanded the nation's focus on intermodal transportation and movement of people and goods. It provided federal funding for multimodal transportation, including passenger rail service and facility improvements, from both the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) to Metropolitan Planning Organizations (MPOs) and states.

In 1997, Congress passed a more flexible funding authorization package called the Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21). Built upon the foundation of ISTEA, TEA-21 contained a number of changes that permitted increased opportunities for states to obtain funds for rail freight projects and intercity passenger service.

Road and air travel congestion, air pollution, and increased availability of federal funding have contributed to a revived interest in passenger rail travel. In Oregon and elsewhere, passenger rail transportation's recent emphasis is on high-speed rail. Although the cost of developing a high-speed rail system is substantial, interest nationwide at all levels of government to invest in and support high-speed rail continues to remain strong.

While funding continues to be an issue, past efforts have laid solid ground for continued high-speed rail development. There are 12 high-speed rail corridors nationally authorized under the High-Speed Rail Investment Act. The Pacific Northwest Corridor (Interstate 5 from Eugene to Vancouver, B.C.) was federally designated as a high priority corridor in 1998. High Priority Corridor status makes Oregon eligible to receive additional federal funds for high-speed rail projects along I-5.

In 1999, rail ridership along the Pacific Northwest corridor between Eugene and Vancouver, B.C. hit an all-time high of 570,000, a three percent increase over 1998. The increase is attributed in part to the introduction of the European-style Cascades *Talgo* train equipment that was custom-built for this region. That same year, the Oregon Legislature approved funding for a second daily train between Eugene and Portland (and on to Seattle). Cascades trains are designed for high-speed rail service; however, track and safety systems currently limit the trains to a top speed of 79 miles per hour. Incremental improvements to these systems, already underway, will allow speeds of 110 mph by the year 2018.

Amtrak's Eugene station is the southern terminus of the Pacific high-speed rail corridor. Major renovation plans for the train station are underway to expand its function to accommodate multi-modal transportation. In 1998, after passage of TEA-21, Congress contributed \$2 million to help initiate this effort.

Information about rail freight transportation systems is provided in the next chapter on Rail, Air, Water, and Pipelines.

## **Goals And Policies: Public Transportation**

- Goal 10: Support and encourage improved public transportation services and alternatives to single occupancy vehicle travel between the Eugene-Springfield Metropolitan Area and outlying communities.
  - Policy 10-a: Continue to assist in coordinating public transportation and multi-modal transportation initiatives by providing technical support and otherwise participating in technical advisory committees, task forces and working groups, such as the regional Commuter Solutions (Transportation Demand Management) program.

Policy 10-b:	County Road construction and reconstruction projects shall include consultation with LTD
	and shall, as feasible, accommodate transit stops, bus pullouts and shelters along existing or
	planned bus routes as permitted under statutory requirements for road fund expenditures.
	Unless otherwise authorized by the Board of County Commissioners, transit stop amenities
	with the exception of bus pullouts will typically be funded by LTD or other non-County
	sources.

- Policy 10-c: The County will support efforts to develop public transit facilities such as park-n-ride lots and shelters in rural areas when they are consistent with land use, zoning, and other applicable regulations.
- Policy 10-d: The County will investigate the possibility of providing free or discounted bus transportation services for County employees as part of LTD's Group Pass Program.

#### Goal 11: Support efforts to maintain rail transportation and to promote high speed rail development.

- Policy 11-a: As feasible, Lane County will participate in efforts to plan, develop, and maintain rail-related infrastructure improvements for high-speed and other passenger rail service.
- Policy 11-b: Lane County will coordinate with and support State efforts to comply with Federal and State rail transportation requirements by consulting adopted versions of the Oregon Transportation Plan and Rail Plan when making transportation or land use decisions involving rail facilities.

## Goal 12: Support initiatives to develop improved transportation services for County citizens with special needs.

Policy 12-a: As feasible and as opportunities arise, Lane County will support public and private efforts to meet special transportation service needs for County residents, giving priority to rural residents.

## 4.4. RAIL, AIR, WATER, AND PIPELINES

## **Rail Transportation**

Railways in Lane County are part of a State and Federal network, providing both freight and passenger services. Passenger rail transportation is discussed in the previous chapter on Public Transportation.

## Freight Rail Transportation

There are 2,387 miles of railroad in Oregon. Slightly more than half are owned and operated by two major rail systems which pass through Lane County: the Union Pacific Railroad and the Burlington Northern Santa Fe Railway. Short line or small railroads operate the remainder.

Oregon's freight rail traffic totaled 63.5 million tons, handled to, from, within, and through the state in 1999. This figure represented an almost 18 percent increase over freight rail tonnage handled in 1992, the data year used for the 1994 *Oregon Freight Rail Plan*. Major commodities handled by the railroad in Oregon include lumber and forest products, automobiles and trucks, grain, fruits and manufactured products. The general characteristics of Oregon freight rail tonnage are similar to the characteristics of freight rail tonnage in Washington, i.e., more tons terminate in the state than originate here, and through traffic accounts for a major share of total tons. *(Executive Summary, Draft 2001 Oregon Rail Plan)*.

**Union Pacific Railroad** follows the historic route of the Oregon Trail into the state over the Blue Mountains in northeast Oregon, along the south bank of the Columbia River to Portland, before traveling south into Eugene. The track continues southeast to Chemult, and then south to California. While Eugene is considered an important terminal on the route, in 1999, the railroad closed its Eugene yard and opened a new switchyard just north of Sacramento.

The **Burlington Northern Santa Fe Railway** enters Oregon along the north-south I-5 corridor in Western Oregon, and also from the northeast, sharing track with Union Pacific along the south banks of the Columbia River. BNSF operates a major Portland terminal. The main branch line terminates in Eugene, where it connects to the Central Oregon and Pacific Siskiyou short line. The line between Eugene and Portland was originally built by the Oregon Electric Railroad to provide passenger service between Eugene and Portland. Today it is used exclusively for freight.

**Central Oregon and Pacific** operates two short lines out of Eugene. The Siskiyou Line travels south to Black Butte, near Weed, California and the Coos Bay Line travels west from Eugene to Mapleton, then on to Coquille. Both of these lines are former Southern Pacific branches which were acquired in 1994 by the previous parent company, Railtex. CORP has been an independent operator since 1995.

## **Goals And Policies: Rail Transportation**

Goal 13: Promote railway and highway safety at and near road and railway intersections.

- Policy 13-a: Lane County's Engineering Division shall notify railroad companies of all road improvement projects within 500 feet of railways.
- Policy 13-b: Road improvement projects will give consideration to upgrading existing railroad crossings and protective devices, grade-separated crossings, elimination of existing railroad crossings, and to the extent possible, will minimize new railroad crossings.

## **Air Transportation**

The Eugene Airport is the major regional commercial airport for the County. There are also airports in Florence, Oakridge, Cottage Grove, Creswell, and McKenzie Bridge that generally serve smaller, private aircraft. Three of these are owned and operated by the Oregon Department of Aviation (ODA), in Cottage Grove, McKenzie Bridge, and Oakridge.

The Oregon Aviation Plan addresses public use airports. It establishes five categories of airports based upon their functional roles. Lane County includes one Category 1 airport (Eugene), three Category 4 airports, and three Category 5 airports. The Siltcoos Lake Seaplane Base is unrated due to its infrequent use. Category 1 airports accommodate scheduled major/national or regional/commuter commercial air carrier service. Category 4 airports accommodate general aviation users and local business activities. Category 5 airports accommodate limited general aviation use in smaller communities and remote areas, and function for emergency and recreational use.

Following are descriptions of public airports throughout the County. Number of annual operations (take off or landing) are based upon records kept by the State Department of Aviation and Federal Aviation Administration. Not listed in this section are the numerous private airports, such as those serving hospitals and other businesses.

### **Eugene Airport**

Eugene Airport is owned and operated by the City of Eugene, and is a Category 1 airport. Located approximately 10 miles northwest of Eugene's central business district, it is situated on approximately 2,500 acres of land. Ground access to the Airport is provided via Airport Road off of State Highway 99.

Originally named Mahlon Sweet Field after a local businessman who promoted its establishment, the Eugene Airport was dedicated in 1943. The area's general aviation activity was transferred to Mahlon Sweet Field upon the closure of the Eugene Air Park in 1956. The Eugene Airport is the fifth-largest airport in the Pacific Northwest, and the second busiest airport in the state. It is classified as a primary commercial service small hub airport in the National Plan of Integrated Airport Systems. It supports commercial service and general aviation activity. There are approximately 95,902 annual operations at this airport.

United, United Express, Horizon Air, and America West Express are the airlines that provide scheduled commercial service at this airport, although service is subject to change. In addition, two full-service fixed base operators (FBOs) and one limited service FBO operate at Eugene Airport, providing services such as repairs, fueling, maintenance, charter flights, agricultural spraying, aircraft sales and rentals, and flight instruction. The airfield consists of two runways.

### **Creswell Airport - Hobby Field**

The City of Creswell municipal airport, Hobby Field, is a Category 4 facility owned by the City and leased to a private operator. The airport is located 1 mile northeast of Creswell, between Interstate 5 and Dale Kuni Road. It is accessed from Melton Road off of Cloverdale Road. The 28-acre site includes a paved runway, a parallel taxiway, approximately 45 hangars and tie down spaces. Services include charter flights, flight instruction, two skydiving schools, aircraft rental, and fueling. There are approximately 38,500 annual operations at this airport.

### **Cottage Grove Airport**

Cottage Grove Airport, owned by the State Aeronautics Division, is 1 mile east of the City of Cottage Grove. It is a Category 4 airport. There are approximately 16,685 annual operations at this airport. Services provided by a private operator include fueling, aircraft maintenance, pilot lounge, a restaurant, and camping. In 1999, the State completed several runway safety improvements, including a new taxiway, expanding the tie-down apron, and installing lights and approach indicators. The Oregon Aviation Historical Society has operated the Oregon Aviation History Center on property leased at the airport since early 2000.

### **Florence Municipal Airport**

The Florence Municipal Airport, rated as Category 4 by the ODA, is located approximately 1 mile north of Florence, within the Florence Urban Growth Boundary. Fueling, aircraft rental, flight instruction, and tie-down facilities services are available. There are approximately 5,500 annual operations at this airport.

### Lake Woahink Seaplane Base

This Category 5 aircraft facility is approximately 4 miles south of Florence, and has two, unmarked water runways. Tiedown facilities and flight instruction is available. There is a potential for 3,000 operations at this facility, although there was no longer a full-time operator at the facility as of this writing.

### Siltcoos Lake Seaplane Base

This facility 6 miles south of Florence has two, unmarked water runways. There are approximately 100 operations per year from the facility. Tiedowns are available, and a private dock is nearby. The ODA has no Category rating for this seaplane base.

## **Oakridge State Airport**

The Oakridge State Airport is approximately one mile west of Oakridge, on Airport Road north of Highway 58. There are approximately 1,700 operations at this Category 5 facility per year. The U.S. Forest Service uses the airport as a staging area for fire fighting helicopter operations during the fire season.

## **McKenzie Bridge State Airport**

No aircraft are based at this small facility, which is essentially a take-off and landing area located 3 miles east of McKenzie Bridge on the south side of Highway 126, approximately 1 mile west of the Highway 242 intersection. There are two Forest Service helipads that are sometimes used during the fire season. The airport provides recreational access to the area, and serves as an emergency landing strip. Less than 1,000 operations occur here per year. This airport is one of nine State-owned "warning" airports. These airports do not meet normal dimensional standards and have conditions that require specific pilot knowledge. Pilots are advised to contact the ODA prior to use.

## **Goals And Policies: Air Transportation**

#### Goal 14: Coordinate transportation system improvement decisions with airport facility needs.

Policy 14-a:	Road improvements on major airport access routes shall be consistent with the Eugene Airport Master Plan and with other Airport Plans adopted by cities where airports are located.
Policy 14-b:	Consistent with the 2000 Eugene Airport Master Plan, Lane County Public Works Engineering will coordinate with the Eugene Airport Authority to improve ground access to the airport. As opportunities arise, transportation system projects will incorporate improvements to access routes to other public airports in the County.
Policy 14-c:	Road improvement design decisions affecting access routes serving public airports in the County will consider the needs of motor vehicles associated with existing and contemplated air freight and air passenger businesses serving the airports.
Policy 14-d:	All County Road improvements near airports will be coordinated with federal, state, and local agencies responsible for airport air space.

### Goal 15: Coordinate land use decisions with airport facility needs.

Policy 15-a: Lane County shall review all proposed airport expansion plans and provide comment as appropriate regarding land use compatibility, consistency with zoning, and impacts on the County's transportation system.

Policy 15-b: Lane County shall review all proposed land use outside urban growth boundaries and in the vicinity of an airport regarding compatibility with the airport. Airport airspace shall be protected from inappropriate development through the implementation of land use and zoning regulations.

#### Goal 16: Support multi-modal transportation services to and from the airport.

Policy 16-a: As possible, Lane County shall participate in planning and other efforts to improve public as well as private, multi-occupancy vehicle transportation services to and from the Eugene Airport.

## Water Transportation: Port Of Siuslaw

The Siuslaw River is a federally authorized navigable waterway for 16.5 miles from its mouth at the Pacific Ocean. Navigation maintenance is under U.S. Army Corps of Engineers (USACE) jurisdiction. The river and Port are also served by the U.S. Coast Guard Station Siuslaw.

The Port of Siuslaw is the oldest port on the Oregon coast. The overall project was originally authorized in 1890 with later modifications. As the only port serving Lane County and the Eugene/Springfield metro area, the Port is involved in a wide range of commercial enterprises and public services. Its principle functions are to facilitate commerce and create jobs. Port facilities include wharfage, commercial and recreation moorages, public boat ramps and docks, campground and parks, and commercial/industrial land and building leases. Facilities extend about 22 miles upstream to the unincorporated community of Mapleton.

The mouth of the river is protected by two jetties, one on the north and one on the south side of the river. The shallow draft channel is suitable for ocean-going tugs and barges, and commercial fishing vessels. The principle economic drivers in the Port district are forest products, agriculture, tourism, fisheries and recreation. While the Port levies a property tax, revenues from enterprise activities account for over 75% of its operating budget.

Industrial activities on the navigable waterway include private industry shipping terminals at river miles 6.5, 7.5, and 16. U.S. Highway 101 crosses the navigable waterway by drawbridge at river mile 4.5, and the Central Oregon Pacific Railroad crosses the water by swing bridge at river mile 8.2.

Annual maintenance dredging is performed on the entrance bar with smaller amounts of dredging taking place on the upper channel at irregular intervals. In the recent past, maintenance dredging by the USACE has removed approximately 150,000 cubic yards of material annually from the main entrance channel at an average cost of about \$600,000 but has not dredged the other sections of the river for almost 30 years. The USACE has recently been under pressure to recoup the cost of dredging and to consider cost effectiveness. As a result it is increasingly difficult for smaller ports to compete with larger ports for scarce dredging funds.

While the Port District has recently completed several facility renovations, many waterfront structures that were completed during 1960-1980 are still in need of rehabilitation or replacement, including piers, wharves and docks in Old Town Florence. Other needed work includes stabilizing sections of the shoreline to prevent further erosion. The Port office, shops and warehouses are in need of replacement. Recent renovations include partial bulkhead restoration, construction of a boardwalk, rehabilitation of the commercial marina and remediation of an old lumber mill site for future commercial development.

Industrial development on Port properties and other similarly zoned properties within the District boundaries remains dependent upon improving infrastructure. Water, sewer and electric utility service are adequate but telecommunications upgrade is needed if the Port is to expand its facilities. Current economic trends will

probably mean that the Port of Siuslaw will rely increasingly upon recreation and tourism revenues to provide internal financing for infrastructure and business development.

Efforts to promote recreational use of the Port of Siuslaw include the development of the Siuslaw Estuary Water Trail. Plans are to designate over 24 miles of water trail on the Siuslaw River from Mapleton to Florence, including installation, construction, or development of signage, access points, maps, campsites, and other water trail related infrastructure for paddling enthusiasts. A multi-party planning effort for the water trail was launched in 2003 with participants from the Port of Siuslaw, Siuslaw Watershed Council, National Park Service, City of Florence, and Florence Chamber of Commerce, as well as interested business people and residents.

## **Goals And Policies: Water Transportation**

- Goal 17: Support Port of Siuslaw development efforts and recognize the Port as important to the state and local economy.
  - Policy 17-a: Road improvement projects affecting facilities that support or are operated by the Port of Siuslaw shall be coordinated with the Port and with the Oregon Department of Transportation. Lane County will seek concurrence for all development in the Siuslaw River and adjacent to the navigable waterway.
  - Policy 17-b: Lane County shall review proposed Port of Siuslaw expansion plans when they involve lands and/or roads in the County's jurisdiction, and provide comment as appropriate regarding land use compatibility, consistency with zoning, and impacts on the County's transportation system.
  - Policy 17-c: Lane County shall support Port of Siuslaw in its efforts to improve navigability of the river and promotion of the local fishing industry, consistent with state and local land use and zoning laws.

#### Goal 18: Protect the long term ecological health of the Siuslaw River.

Policy 18-a: Development in and near the Siuslaw River in areas of County land use jurisdiction shall comply with the Lane County Coastal Resources Management Plan and with federal and state regulations.

## **Pipelines**

Two major pipelines pass through Lane County. **Williams Company** transports natural gas. Their Northwest transmission system extends from the Canadian border at Sumas, Washington and serves seven states, including a line running south through Lane County to Grants Pass.

The **Kinder Morgan Energy Partners Pacific Pipeline** carries petroleum gas from Portland to Eugene. The pipeline is 8 inches in diameter and made of steel. It enters Lane County north of Junction City and terminates in Eugene at their Prairie Road railroad terminal.

The following contact information is provided for coordinating road improvement projects:

Williams Gas Pipeline WestKinder Morgan Eugene Terminal295 Chipeta Way1765 Prairie Rd.Salt Lake City, UT 84158Eugene, OR 97402801/583-8800541/689-154524-hour gas control: 800/972-7733

## **Goals And Policies: Pipelines**

#### Goal 19: Protect pipelines as conveyances and for public safety.

- Policy 19-a: Lane County shall coordinate with pipeline providers on matters of mutual concern, such as road maintenance activities and road improvement projects to protect public safety and maintain the viability of both modes of transportation.
- Policy 19-b: Lane County shall review all proposed pipeline expansion plans and provide comment as appropriate regarding land use compatibility, consistency with zoning, and impacts on the County's transportation system.

## **CHAPTER 5: TRANSPORTATION AND LAND USE**

The TPR mandates that the County's Transportation System Plan describe how the County is implementing state land use Goal 12 to provide a network of facilities and services to meet overall transportation needs. Within that framework, one purpose of the TPR is to better integrate transportation system and land use planning.

Areas outside of UGBs are generally treated as "rural" areas under state land use laws. The TPR does not allow new arterial roads in rural areas, unless an "exception" to applicable statewide land use goals is taken. In other words, new arterial roads in the County require an amendment to the Transportation System Plan, following the state-specified exception process. The grounds for an exception cited in OAR 660-012-0070 require an analysis that demonstrates why the need cannot be met with an alternative mode of transportation, traffic management measures, or improvements to existing transportation facilities. Furthermore, it must be demonstrated that the proposed road improvement cannot be located within an area already committed to development. These requirements apply to both county and state roads. New local roads and collectors are permitted in developed and committed rural areas provided they are limited to two travel lanes and are otherwise limited to serving rural needs.

The TPR also specifies which transportation activities in rural areas do not require a land use decision (i.e., a special use permit or plan amendment requiring notice and opportunity to appeal), and which transportation activities are permitted outright in the underlying land use zone. Reconstruction and modernization of existing roads is generally permitted outright in all rural areas that are not in Exclusive Farm Use or Forest zones, where construction of additional travel lanes and in some cases, the acquisition of land for additional right-of-way, are treated as special uses.

Routine operation, maintenance, and preservation activities for roadways and other transportation facilities are permitted uses in rural zones. However, zoning is only one element of the numerous laws regulating road improvements or for that matter, any type of development. Road projects involving water crossings may require permits from and coordination with multiple federal, state, and local agencies responsible for administering floodplain, wetland, riparian and greenway regulations, and the Clean Water Act National Pollutant Discharge Elimination System (NPDES) program. Such permits typically impose a variety of performance measures to control and reduce flood hazards, erosion, water quality degradation, and to otherwise protect natural resources.

As described in the TSP Roadways Element, Chapter 4.1, the Capital Improvement Program (CIP) is the "project development" mechanism referenced in the TPR (OAR 660-012-0010(1)) that implements the TSP. CIP projects are adopted as part of a financial program that is updated each year. In addition, individual road project designs are subject to procedures specified in Lane Manual. Citizens have input into transportation planning and project development at multiple levels: the TSP adoption process, the annual CIP program adoption process, individual project design development, and through any required land use permit application process.

### **Roads and Private Development**

Private development has an impact on the transportation system. For instance, land divisions may result in significant traffic increases, and new commercial and industrial uses sometimes bring additional heavy equipment uses onto the road system.

Prior to 1949 there was no County land division ordinance. Consequently, many pre-1949 plats in the County include no, or substandard roads. Roads within these plats were dedicated to and, in most cases, accepted by the County. It is not uncommon for these "paper plats" to include no consideration of physical land limitations such as topography, wet areas, or physical obstructions. In addition, in past years, neither road improvements nor surveys were required prior to final plat approval. As a result, new roads constructed for private development were improperly located in the absence of a survey. Such circumstances present challenges in balancing public safety, access management, and equitable road improvement requirements as the platted lots develop over time on an individual basis.

Although it has rarely been used, petitioning to the County and formation of a local improvement district (LID) is an equitable approach available to property owners seeking improvements to roads adjacent to their land. This is referred to as a "special assessment for public improvements" in Lane Code Chapter 15. Recent use of the special assessment process has been limited to initiation by resolution of the County Board, through the Capital Improvement Program, for improvements on County-maintained urban collector and arterial streets.

## **Goals And Policies: Transportation And Land Use**

## Goal 20: Ensure that transportation projects comply with state land use requirements regarding urban and rural land uses, and other federal, state, and local land use requirements.

Policy 20-a: Transportation projects, facilities, services and improvements as identified in Oregon Administrative Rules 660-012-0065 and as implemented in Lane Code may be permitted on rural lands consistent with statewide land use Goals 3, 4, 11, and 14 without a goal exception.

## Policy 20-b: The following transportation facility improvements do not require an amendment to the TSP unless an exception to state land use laws or a TSP amendment is otherwise required.

- (i) Channelization
- (ii) Operation, maintenance, and repair
- (iii) Preservation
- (iv) Reconstruction
- (v) Rehabilitation
- (vi) Intersection improvements
- (vii) Realignment
- (viii) Modernization
- (ix) Transportation facilities, services and improvements serving local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.
- Policy 20-c: Plan amendments, zone changes, and other land use decisions shall consider impacts on the County transportation system, including federal, state, county, and other local roads; bicycle and pedestrian paths; public transit facilities; and air, rail, port, and pipeline facilities.
- Policy 20-d: Amendments to the comprehensive plan or any of its adopted components and sub-plans, which significantly affect a transportation facility, shall ensure that allowed land uses are consistent with road function, capacity, level of service, and other adopted performance standards. This may be accomplished by:
  - (i) limiting land uses to the existing road capacity or level of service;
  - (ii) amending the TSP pursuant to Lane Code 16.400(9), to provide adequate facilities;
  - (iii) altering the land use designation, densities, or design requirements to reduce demand for auto travel and meeting travel needs through other modes, or
  - (iv) amend the TSP, pursuant to LC 16.400(9), to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided. If a TSP amendment is required, it shall not be initiated unless the requirements of LC 16.400(9) have been met.

A plan or land use regulation amendment significantly affects a transportation facility, if it:

(i) Changes the functional class of an existing or planned facility, or will result in the roadway facility no longer meeting the functional class definition;

- (ii) Changes standards that implement the functional class, except that approval of an exception or variance to standards does not in itself significantly affect a transportation facility;
- (iii) Allows types or levels of land uses that would result in levels of travel or access that are inconsistent with the functional class; or
- (iv) Would reduce the performance standards of the facility below the minimum acceptable level identified in the TSP.

Determinations under this policy shall be coordinated with affected transportation facility and service providers and other affected local governments.

- Policy 20-e: The presence of a transportation facility or improvement shall not be a basis for an exception under OAR 660-012, OAR 660-004-0022 or OAR 660-004-0028, to allow residential, commercial, institutional or industrial development on rural lands.
- Policy 20-f: When an exception to statewide land use goals and/or a plan amendment is required for a transportation facility, the approval process should be consolidated with other public hearings and approvals required for the project before the Roads Advisory Committee, the Planning Commission, and the County Board of Commissioners.
- Policy 20-g: Amendments to the County Transportation System Plan shall be processed according to applicable state law requirements, the provisions set forth in Lane Code Chapter 12, and Lane Code 16.400.
- Policy 20-h: Road improvement projects shall comply with federal, state, and local land use regulations.

#### Goal 21: Provide for coordinated land use review when making decisions about transportation facilities.

- Policy 21-a: It is the County's intent that the Transportation System Plan be consistent with state Transportation System Plans, with *TransPlan* (the Eugene-Springfield Transportation System Plan applicable inside the Eugene-Springfield Metropolitan Area General Plan boundary), and with the Transportation System Plans of other cities within the County.
- Policy 21-b: County TSP goals and policies apply to:
  - (i) all roads in the County that have been dedicated to and formally accepted by the Board of County Commissioners, unless and until such roads are subsequently accepted or annexed by an incorporated community; and
  - (ii) all other transportation facilities and services, including road, air, rail, pipeline and port facilities, located outside of urban growth boundaries or outside of the Eugene-Springfield Metropolitan Area General Plan boundary.
- Policy 21-c: Where inconsistencies exist between the County TSP and other TSPs applicable within the County, or between road design standards of the County and other jurisdictions within the County, the following guidelines shall be used in making decisions about road improvements and services. If the inconsistency involves:
  - (i) a state highway, state transportation system plans and design standards shall prevail;
  - (ii) a public or private road outside of an urban growth boundary, the County TSP and road design standards shall prevail;
  - (iii) a public or private road functionally classified as a local road within an urban growth boundary, the City TSP and applicable road design standards shall prevail;
  - (iv) a road defined as a County Road pursuant to Lane Code 15.010 and functionally classified as a collector or arterial road, the County TSP and road design standards shall prevail;

- a public or private road functionally classified as a local road or primarily used to provide local access to abutting properties within the Eugene-Springfield Metropolitan Area General Plan boundary, *TransPlan* and the respective applicable Eugene or Springfield road design standards shall prevail within the urban growth boundary and the applicable County Road design standards shall apply outside the urban growth boundary;
- (vi) an intersection or roads in more than one jurisdiction's ownership or control, the TSP goals and road design standards of the agency having ultimate maintenance responsibility shall prevail.

Decisions about road improvements may follow different guidelines than those above upon agreement of the elected officials of the involved jurisdictions or their designees, or if other recorded inter-jurisdictional agreements exist that supersede the above guidelines.

#### Goal 22: Encourage adequate road improvements for new development.

- Policy 22-a: The dedication of adequate right-of-way and construction of road improvements may be required to serve traffic that will be generated due to the development.
- Policy 22-b: The County will consider opportunities to purchase land for extensions of right-of-way where connectivity between collector and arterial roads is needed to promote efficient traffic flow.
- Policy 22-c: The County encourages and will facilitate the formation of Local Improvement (special assessment) Districts to address road improvement needs on sub-standard roads.
- Policy 22-d: Road vacations proposed as part of lot or parcel reconfigurations or property line adjustments, that will result in loss of connectivity between dedicated public and/or County Roads shall require approval of a replat of all subdivision lots and partition parcels adjacent to the road to be vacated. As part of the replat process, the County may require dedication of right-of-way or the creation of private easements, and road improvements, to ensure previously existing connectivity between public or County Roads is maintained.
- Policy 22-e: Roads that were dedicated to the County but were never accepted shall be subject to goals, policies, and standards applicable to private roads and easements, unless otherwise specified.

## **CHAPTER 6: RECOMMENDED IMPROVEMENTS**

## 6.1. County Profile And Trends

This section provides an overview of Lane County's population, employment, truck commodity flows, commuting habits, survey information about transportation concerns, and land use with regard to transportation system implications. Data was collected from the U.S. Census Bureau, the Oregon Administrative Services Office of Economic Analysis, the Oregon Employment Department, the state's Population Research Center, the Oregon Blue Book, and other sources as noted.

Lane County was named for General Joseph Lane, who was Oregon's first territorial governor. It began as a farming community in the late 1840s, and was established as a county in 1851. With the building of the railroads, the market for timber opened in the 1880s. Today, wood products and farming are still important sectors of the economy in addition to high-tech manufacturing and tourism. Lane County government operates under a home rule charter approved by voters in 1962.

### Population

Lane County's population in the year 2000 was 322,959 (U.S. Census). Between 1990 and 2000, the County's population grew at an annual rate of one to two percent, with an overall increase of 14.2%. This compares with the state's increase over the same period of 20.4% and the national increase of 13.1%. Eugene and Springfield added a total of 33,405 people during the ten year period, making up 83% of the increase in the County as a whole.

Table 9 from Lane Council of Governments (LCOG) on the following page summarizes population data for the County. Long-term projections produced by the State of Oregon Department of Administrative Services Office of Economic Analysis indicate Lane's population should continue to grow between about one and two percent per year. By the year 2020, the County's population is expected to increase 30% to 419,842 (Office of Economic Analysis projections).

### **Employment**

After a history of economic ups and downs related to reliance on lumber and wood products, Lane County's industry mix diversified in the 1990s. Increased industry diversification has contributed to a more stable economy, one less susceptible to downturns in the national business cycle. Lane County has witnessed a substantial increase in employment over the last 10 years. Nonfarm employment since 1990 has increased by approximately 2,600 jobs per year, or about 2.2 percent. Year 2000 Employment within the County was 158,300.

By 2020, the Office of Economic Analysis projects nonfarm employment in the County to grow at a slower rate than it did during the 1990s, to 179,512 jobs, an increase of 13.5% over 2000 employment. It is likely that most of employment growth will occur in the Eugene-Springfield Metropolitan area.

## **Truck Commodity Flows**

In 1998, the Oregon Department of Transportation published results of a study of truck commodity flows within Oregon. Trucking accounts for 76% of the weight of all freight shipments, and 64% of the value in Oregon, according to the U.S. Bureau of Transportation Statistics. For the Willamette Valley/Southwest Oregon, farming and wood products are major truck exports. Orchard crops, vegetables, grains, hay, seeds and berries result in daily export truck trips worth nearly \$7 million. Lumber is also a major commodity.

Population for Lane County and Cities											
	1960	1970	1980	1990	2000	% Change 1990-2000	Numerical Change 1990-2000	Annual Average Growth Rate 1990-2000	Annual Average Growth Rate 1980-2000	Annual Average Growth Rate 1970-2000	Annual Average Growth Rate 1960-2000
Oregon	1,768,687	2,091,533	2,633,105	2,842,321	3,421,399	20.4%	579,078	1.9%	1.3%	1.7%	1.7%
Lane County	162,890	215,401	275,226	282,912	322,959	14.2%	40,047	1.3%	0.8%	1.4%	1.7%
Cities											
Eugene	50,977	79,028	105,664	112,669	137,893	22.4%	25,224	2.0%	1.3%	1.9%	2.5%
Springfield	19,616	26,874	41,621	44,683	52,864	18.3%	8,181	1.7%	1.2%	2.3%	2.5%
Cottage Grove	3,895	6,004	7,148	7,402	8,445	14.1%	1,043	1.3%	0.8%	1.1%	2.0%
Florence	1,642	2,246	4,411	5,162	7,263	40.7%	2,101	3.5%	2.5%	4.0%	3.8%
Junction City	1,614	2,373	3,320	3,670	4,721	28.6%	1,051	2.6%	1.8%	2.3%	2.7%
Oakridge	1,973	3,422	3,729	3,063	3,148	2.8%	85	0.3%	-0.8%	-0.3%	1.2%
Veneta		1,377	2,449	2,519	2,755	9.4%	236	0.9%	0.6%	2.3%	
Creswell	760	1,199	1,770	2,431	3,579	47.2%	1,148	3.9%	3.6%	3.7%	3.9%
Dunes City		976	1,124	1,081	1,241	14.8%	160	1.4%	0.5%	0.8%	
Lowell	503	567	661	785	857	9.2%	72	0.9%	1.3%	1.4%	1.3%
Coburg	754	713	699	763	969	27.0%	206	2.4%	1.6%	1.0%	0.6%
Westfir			312	278	276	-0.7%	-2	-0.1%	-0.6%		
Incorporated	81,734	124,779	172,908	184,506	224,011	21.4%	39,505	2.0%	1.3%	2.0%	2.6%
Unincorporated	81,156	90,622	102,318	98,406	98,948	0.6%	542	0.1%	-0.2%	0.3%	0.5%

Sources: 1960, 1970, 1980, 1990 and 2000 Figures from U.S. Census; Lane Council of Governments (2002)

Washington State is the area's most significant out-of-state trade partner, receiving 20 thousand tons worth nearly \$1 million of lumber products daily, according to ODOT's study.

On an average weekday, approximately 19,000 trucks enter Oregon carrying 250 thousand tons of goods worth \$161 million. While the majority of goods go to Portland, the Willamette Valley/Southwest region ranks second in Oregon in shipments from other states. Washington and California account for more than three quarters of all truck imports to Oregon. Of the remaining 25%, approximately 11% of truck imports come from the Mountain Pacific, Midwest, and South regions.

#### **Commute Destinations**

Where people live relative to where they work has a significant impact on traffic congestion. According to the 1998 ODOT report on commuting patterns, based upon 1990 data, 116,269 of 118,925 Lane County residents (98%) also work within Lane County, and 72,275 of 73,151 residents (99%) of Eugene-Springfield also work within the Eugene-Springfield metropolitan area.

Additionally, many people who do not live in Eugene-Springfield commute there from throughout the County and elsewhere. It is not only the dominant employment center for the County, but also offers services not otherwise available in the County, such as health care.

LCOG compiled data about commuting patterns in the County, based upon the 1990 Census. About 25% of workers who resided in Oakridge in 1990 commuted to jobs in the Eugene-Springfield metropolitan area. This compares to about 59% of Junction City workers, about 58% of Creswell workers, and about 76% of Veneta workers.

The 2000 Census includes data on Commuting to Work, shown in the following table.

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	Single Occ. Vehicle	Car/Van Pool	Transit	Walk	Bike/ Other	Work at home	Mean travel time (minutes)
Oregon	73.2	12.2	4.2	3.6	1.9	5.0	22.2
Lane County	71.6	12.2	3.3	4.2	3.7	5.1	19.9
Coburg	79.7	10.1		3.9	.6	5.8	19.9
Cottage Grove	77.8	11.7	1.5	4.5	1.1	3.4	22.8
Dunes City	81.1	7.7		3.6	.7	6.8	23.0
Eugene	66.8	11.2	4.9	6.1	6.2	4.7	16.9
Florence	71.0	13.5	.6	11.1	1.0	2.8	12.9
Junction City	77.1	11.7		5.4	3.2	2.6	19.9
Lowell	74.4	15.7	.3	3.8		4.8	26.4
Oakridge	65.0	22.7		6.1	.6	5.6	25.2
Springfield	73.5	14.3	4.6	2.0	2.1	3.5	19.8
Veneta	81.1	12.3		2.3	.8	3.6	25.9
Westfir	68.0	22.1	.8	2.5	1.6	4.9	36.7

Table 10: Percent of Commuters to Work Using Various Commuting Modes, and Mean Travel Time (U.S. Census 2000)

It is noteworthy that Oakridge and Westfir, located about 45 miles from the Eugene-Springfield metropolitan area have a significantly lower percentage of single occupant vehicle commutes than all other communities (except that Eugene's single occupant vehicle percentage is slightly lower than Westfir's). 22.7% of Oakridge residents, and 22.1% of Westfir residents, use car/van pools for work commuting, percentages that are significantly higher than those for other communities that are closer to Eugene. LTD runs a van service between Eugene-Springfield and these two cities. The data suggests that distance plays a factor in the decision by residents of Oakridge and Westfir who work in the Eugene-Springfield area to use the van service. Other communities which are closer to Eugene-Springfield, including Cottage Grove, Junction City, Lowell, and Veneta, are all served with transit. However, there is no significant difference in single occupant vehicle or transit use for these communities, suggesting that residents who live there and work in Eugene choose not to use transit, in part based upon a shorter commute compared to that for Westfir/Oakridge residents.

## **Transportation Issues and Livability Concerns**

Transportation relates strongly to livability concerns. Air quality contributes significantly to livability, and motor vehicles are a major source of carbon monoxide and other air pollutants. In addition, the distribution of population compared to economic activities is directly related to traffic congestion.

In 1998, the Willamette Valley Livability Forum<sup>5</sup> commissioned two surveys totaling 1,156 residents 18 years of age and older throughout the Valley, regarding concerns about growth and future livability. Respondents were asked about various issues that were categorized and ranked within each county. Selected results of the survey provide information about Lane County residents' concerns about transportation-related issues.

Of 16 issues, Lane County respondents ranked traffic congestion and air quality as their fourth highest concerns. Respondents were also asked about desired outcomes for 13 scenarios in 20 years time. As with all five counties, the most desired item for Lane was having good air and water quality 20 years from now.

## Land Use Trends

Lane County is one of only two Oregon counties (Douglas County being the other) that extends from the Pacific Ocean to the Cascade mountain range, covering 4,620 square miles, or almost 3 million acres of land. Roughly 4,515 square miles are outside of urban growth boundaries. Of that, 4,395 square miles are in resource use, and approximately 120 square miles (76,800 acres) are developed or committed to development. Unlike any other county in Oregon, all 19 statewide land use goals apply to Lane County.

Most of Lane County's incorporated communities are located within a 30 mile radius of the Eugene-Springfield area. Lane's other population centers outside of the Eugene-Springfield area include the corridor between Florence and Dunes City on the Coast, and the Oakridge/Westfir area in the foothills of the Cascade Mountains.

Eugene and Springfield include approximately 60% of the County's population, based upon Census 2000 data. Approximately 10% of the County population lives in other incorporated communities, and 30% live outside of City limits. Most of the latter population live in the County's 35 unincorporated communities.

Outside of urban growth boundaries, state land use laws primarily determine where new development can occur. While Eugene-Springfield is the third largest Metropolitan Statistical Area in Oregon (with the Portland-Vancouver and Salem-Keizer MSAs being larger), the majority of the County is in resource zoning, including 90% in Forest zones. State land use laws restrict development in resource areas.

Nonresource zones, or "developed and committed" areas of the County are those areas that allow residential development to occur. These areas are generally composed of the County's 35 unincorporated communities. Lane County has an unusually large amount of detailed data regarding these areas. The data was developed by the County in response to a 1988 Oregon Supreme Court decision that overturned the State Land Conservation and Development Commission's (LCDC) acknowledgment of portions of the Rural Comprehensive Plan. Under close scrutiny of Department of Lane Conservation and Development (DLCD) staff and 1000 Friends of Oregon, Lane County re-evaluated its data. The result was a file for each developed and committed area including a report of the number of tax lots, dwellings, and vacant tax lots.

In 1996, the data was updated as part of early efforts associated with the Transportation System Plan update. This work involved re-examining the data for each developed and committed area as to the zoning, the number of built

<sup>&</sup>lt;sup>5</sup> The Willamette Valley Livability Forum was created in December 1996 by Governor John Kitzhaber to identify and promote solutions to the growth and development issues that face Willamette Valley communities. It consists of a voluntary consortium of citizen leaders and representatives of businesses, non-profit organizations, and local, state, and federal governments.

upon and vacant parcels, estimating the number of parcels that could be re-divided, and estimating the number of parcels that could be rezoned to a higher density. This data indicated that approximately 2,600 vacant parcels remained in developed and committed areas.

The data was revisited again in 2001, when the County updated its zoning to comply with new and stricter state density requirements adopted by DLCD in October 2000. Given that the density requirements reduced or eliminated the ability to rezone and/or re-divide most residential parcels, the estimate resulted in a decrease of approximately 800 vacant parcels. In addition, based upon building permit activity, it was estimated that approximately 300 additional parcels had been developed since the 1996 analysis, resulting in approximately 1,500 vacant parcels remaining in developed and committed areas that could be developed outside of urban growth boundaries. In these areas, state and local law allow only one primary dwelling per parcel, so this represents 1,500 new residences. These parcels are not located in any particular vicinity, but are scattered throughout the County's developed and committed areas. The relatively low number of remaining, vacant developed and committed parcels is not surprising, given that Lane County was required to comply with strict state criteria when initially designating these lands as "developed and committed".

The analysis does not consider whether new dwellings could be built on any Impacted Forest (F-2) zone or Exclusive Farm Use (EFU) parcels, where dwellings are allowed under special use permits if certain state land use criteria are met. A count of dwelling permits issued for vacant parcels was done for 1999, 2000, and 2001. The count was based upon dwelling permits associated with a new address. (When a new address is needed for a development permit, it typically indicates that the parcel where the residence is being built was vacant). For the F-2 zone, the criteria that are most easily met are generally based upon proving that the surrounding area is already relatively developed. As a result, it is anticipated that the number of remaining F-2 parcels that can qualify will decrease over time, as the remaining, smaller F-2 parcels are developed (larger parcels cannot meet the criteria for a dwelling, and generally cannot be divided to less than 80 acres in size). In 1999, 2000, and 2001, new addresses and dwelling permits issued for F-2 parcels totaled approximately 28, 25, and 26 respectively. In the EFU zone, the state criteria for obtaining a new dwelling are not based upon surrounding development, but rather on farm income. The EFU criteria are extremely difficult to meet, as evidenced by the number of new dwelling permits issued for EFU parcels. New addresses and dwelling permits issued for EFU parcels in 1999, 2000, and 2001 totaled approximately 11, 10, and 8, respectively. Since a small percentage of new addresses are issued for existing dwellings that are relocated on a tract, the number of vacant F-2 and EFU parcels is likely somewhat lower than these numbers indicate.

While a more extensive and time consuming analysis could be done for a small number of areas, it would not be expected to result in significant changes in the estimates for purposes of this analysis, in part because it is anticipated that the number of parcels that could meet F-2 special use permit requirements will decline over time, and because the number of new dwellings in the EFU zones is relatively low overall. Nor does it consider the potential for development resulting from possible successful plan amendments to change plan designations from resource to non-resource use (which would require taking an "exception" to statewide land use laws, a difficult and complex threshold to meet). Furthermore, the analysis does not consider what could happen if state land use laws were changed, a distinct possibility given the efforts to do so over past years.

In summary, given that statewide land use laws discourage development outside of urban growth boundaries, and given the relatively low number of vacant, developable parcels estimated to remain outside of urban growth boundaries (UGBs), potential new dwellings on vacant parcels are likely to be relatively few over the next 20 years.

Of greater influence with regard to transportation facility capacity issues is how much growth will occur in cities and the impact on collectors and arterials. While rural development is expected to be part of the cumulative effect on transportation facilities, capacity issues are more likely related to population growth within UGBs, increasing tourism travel and travel between communities, rather than new development in rural areas. Moreover, as population increases, there will be an increased need for the delivery of commodities, which will result in increased truck traffic between communities as well as through traffic to areas like Portland outside of Lane County.

## 6.2. FINANCIAL OVERVIEW

## **Revenue Sources**

The primary revenue sources for the County Road Fund are the state Highway Fund (gas tax, weight-mile fees and other highway user fees) and National Forest timber receipts. Secondary sources of revenue are interest earnings on the road fund reserve, state or federal aid grants or contributions to projects by other agencies.

## **National Forest Receipts**

Lane County has enjoyed a substantial reserve in the Road Fund primarily due to National Forest Receipts, mostly from timber harvests from the national forests in Lane County. Federal law requires that 25% of all national forest receipts be paid to the state in which the forest is located. Revenues from the national forests are to be used for the benefit of public schools and public roads. ORS 294.060 requires that 75 percent of these receipts be dedicated to the County Road Fund and 25 percent to the County School Fund.

During the 1980's, timber receipts were the largest Road Fund revenue source by far, peaking at almost \$26 million in fiscal year (FY) 89-90. At that time, State Highway Trust Fund revenue was \$9.3 million.

Changes in timber management policy in the 1990's drastically reduced national timber harvests, including those in Lane County. In 1990, 1993, and 2000, Congress passed legislation that sustained timber receipt payments to Lane County through various "guarantee" formulas, which have stabilized the timber revenue decline.

The most recent federal guarantee legislation, the Secure Rural Schools and Community Self Determination Act was passed in 2000. The Act provides additional funding for road purposes through Federal FY 06. This influx of new revenue created short-term opportunities for the County. In response, the County Board of Commissioners created the Capital Project Partnership Program and, during FY 01-02, allocated over \$9 million to projects on state highways and city streets in Lane County.

### Federal Aid/Fund Exchange

The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) and its predecessors provided federal aid funds for highway capital improvement projects. Lane County has received federal aid allocations historically from both the Eugene-Springfield metropolitan area allocation and the allocation to rural systems through an agreement between ODOT and the Association of Oregon Counties (AOC). Although small in the overall Road Fund picture, these allocations have funded important projects in the past, such as construction of the Northwest Expressway and the initial grade separation at the Beltline/Coburg Road interchange.

### **State Highway Fund**

The State Highway Fund consists of state motor fuel taxes (currently 24 cents per gallon), state weight-mile taxes for heavy vehicles, motor vehicle registration fees, fines, licenses and other miscellaneous revenues. Highway fund revenues are distributed to cities based upon the ratio of each City's population to the total statewide population within cities. Revenues are distributed to counties based upon each county's proportion of registered vehicles to the statewide total. Lane County's portion has been declining as the Portland metropolitan area has been growing at a faster rate.

The Oregon Constitution requires that revenue from motor vehicle and gasoline taxes be used exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets, and roadside rest areas.

### **Investment Earnings**

These revenues accrue from the interest earned on investments made by the County with the cash on hand from the Road Fund. Investment earnings are subject to the same restrictions of use as the gas tax and national forest revenues. The type of investments available to the County are restricted by ORS and further subject to the policies and conditions recommended by the County Board of Commissioners and approved by the State Treasurer.

## **Other Revenue Sources**

Lane County receives revenues from a variety of other sources, including assessments for road construction projects, reimbursement from the County Surveyor's Corners Fund, and work performed for other County departments and other government agencies.

## **Issues And Trends**

Despite healthy cash reserves, the future of Road Fund revenue sources and levels continues to be uncertain due to dependence on revenues collected by the Federal government and the State and the unpredictable nature of legislation regarding these revenue sources. However, through prudent management of the Fund, Lane County has dealt with this uncertainty. The County has performed a balancing act of sorts, to:

- maintain its road and bridge system to a high standard;
- pursue a substantial and vigorous Capital Improvement Program (CIP), funding many projects on the County Road System, City road systems, and, to a lesser extent, on the ODOT system; and
- share timber receipt revenue with the cities in Lane County for general road operation and maintenance.

If the U.S. Congress continues legislation beyond FY 06-07 that maintains payments to Lane County at similar levels as in the past, all of these expenditures will likely continue in a balance, or mix, similar to the last two decades. If revenues decline substantially, all Road Fund programs will likely be affected.

Stagnation at the state level since the early 1990's regarding gas tax increases or substitute revenue sources has increased the pressure on city, county, and ODOT road budgets across the state. If this trend continues, Lane County will be faced with difficult choices in terms of how to share federal timber receipts. If state revenue problems are accompanied by a corresponding drop in federal timber receipt payments to Lane County, these choices will be even more difficult.

The Oregon school finance dilemma could also affect the Federal Timber Receipt distribution formula. School finance packages considered in recent sessions proposed changing the 75/25 split. However, because this change would seriously reduce most counties' road funds and only marginally add to most school funds, such proposals have historically been defeated each time it was introduced.

While the Road Fund currently has an ample cash reserve, current planned expenditures will draw down the Road Fund cash balance over time. Table 11 at the end of this section reflects a revenue and expenditure scenario produced by the Public Works Department in March 2002 that assumed that the timber "guarantee" is not renewed and that timber receipts would be based on current harvest levels. If that occurred and Road Fund spending continued at the rate projected, by FY 07-08 the Fund cash balance would be exhausted. However, it is important to note that this scenario will not occur because prior to that time, adjustments in either projected revenue stream or proposed projects and expenditures would be made.

The projections in Table 11 are based upon the following assumptions, updated to reflect the FY02-03 budget and the adopted FY03-07 CIP:

- 1. Federal county payments legislation will remain intact through FY06-07, but will not be renewed by Congress.
- 2. The State Legislature will not increase road user fees; transfers from the State Highway Fund will meet current ODOT forecasts.
- 3. The Legislature will not change the timber receipt distribution formula.
- 4. The distribution formula for State Highway Fund transfers will remain intact.
- 5. Lane County will continue to provide the same level of road maintenance and preservation activities as it presently does.

- 6. Compliance with environmental regulations such as the Endangered Species Act and the Clean Water Act will not significantly increase operating costs.
- 7. Projects in the adopted FY03-07 CIP will be constructed as programmed.
- 8. The County/City Road Partnership program will remain in its current form and at payments of \$2.5 million per year through FY08.
- 9. There will not be another round of Capital Project Partnership (CaPP) program funding.

## FinPlan

Concerned by the sudden Federal Timber Receipts revenue decline, the County developed a Road Fund Financial Plan (FinPlan) in 1991, which was approved by the County Board of Commissioners. In 1995, with continued uncertainty regarding national timber receipts, a set of contingency priorities were incorporated into the FinPlan for Board consideration. The FinPlan document provided the starting point for financial goals and policies included in this chapter of the TSP.

## **Future Spending And Prioritization**

The TSP must attempt to prepare Lane County for a wide range of potential financial circumstances. Revenue uncertainty is dealt with by outlining goals for Road Fund stability and management to be pursued over the next 20 years, and by establishing a set of priorities for Road Fund expenditures. Priorities are important for several reasons. Priorities can guide decisions to reduce expenditures during times of revenue shortfall. They also can be used to describe activities to be funded if the Board decides to seek new revenues. Adopting priorities provides clear direction to the public and staff as to how the Board intends to allocate funds.

The goals and policies place primary emphasis on operation, maintenance, preservation, and safety on the County Road system. A second tier of priorities deals with improvement of the County system and basic operation of City road systems. A third set of priorities relates to economic development and off-system project funding.

It is important to clarify the relationship between expenditure priorities and the project list included in the TSP. The Needs Assessment prepared for the TSP is based on a review of roadway conditions and County Road standards. The resulting project list is based solely upon the road network's physical assessment and not on a predicted revenue stream nor on priorities established through public involvement. Priority setting occurs as part of the yearly budget and CIP adoption process. As revenues contract, there will be an emphasis on basic County operation, maintenance, and preservation. As revenues expand, priorities will include more County modernization projects and a broader sharing of resources with cities and ODOT

## Table 11: Lane County Road Fund Revenue/Expense Forecast October, 2002

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08
Revenues							
Federal Timber Receipts	19,206,000	19,398,000	19,631,000	19,896,000	20,165,000	20,447,000	5,000,000
State Highway Fund Transfer	14,950,000	12,124,000	12,488,000	13,482,000	13,725,000	13,807,000	13,945,000
Federal Aid/Fund Exchange	533,000	2,210,000	555,000	555,000	555,000	555,000	555,000
Investment Earnings	2,193,000	1,850,000	2,090,000	1,550,000	1,180,000	810,000	520,000
Other	3,620,000	3,000,000	2,500,000	3,380,000	2,500,000	2,500,000	2,500,000
Total New Revenue	40,502,000	38,582,000	37,264,000	38,863,000	38,125,000	38,119,000	22,520,000
Cash Balance for Previous FY	43,629,000	48,930,000	38,928,600	26,490,000	23,278,000	11,033,000	11,033,000
Total Resources	84,131,000	87,512,000	76,192,600	65,353,000	61,403,000	49,152,000	33,553,000
Expenses							
Public Works Administration	2,440,000	2,850,000	2,960,000	3,060,000	3,160,000	3,270,000	3,400,000
Engineering Division	18,780,000	22,080,000	22,940,000	23,710,000	24,250,000	25,080,000	26,080,000
Surveyor/Land Mgt. Division	2,040,000	2,240,000	2,330,000	2,420,000	2,510,000	2,600,000	2,710,000
Sheriff's Office	1,550,000	1,570,000	1,630,000	1,690,000	1,750,000	1,810,000	1,880,000
Finance & Management	130,000	190,000	200,000	210,000	220,000	220,000	230,000
Operating Budget Subtotal	24,940,000	28,930,000	30,060,000	31,090,000	31,890,000	32,980,000	34,300,000
Lapse and Unexpended		1,450,000	1,500,000	1,550,000	1,590,000	1,650,000	1,720,000
Operating Expense Subtotal		27,480,000	28,560,000	29,540,000	30,300,000	31,330,000	32,580,000
Capital Projects on County System	6,677,000	12,628,000	13,758,000	10,035,000	16,570,000	11,700,000	8,700,000
County/City Road Partnership	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Capital Project Partnership	40,000	5,368,400	3,653,000	0	0	0	0
Projects/Payments for Agencies	62,000	607,000	1,232,000	0	1,000,000	0	0
Comm'ty Devel. Fd (EDAP bef. FY00)	40,000	0	0	0	0	0	0
Capital Expense Subtotal	9,319,000	21,103,400	21,143,000	12,535,000	20,070,000	14,200,000	11,200,000
Total Road Fund Expenses	34,259,000	48,583,400	49,703,000	42,075,000	50,370,000	45,530,000	43,780,000
<u>Cash Balance/Reserves</u>							
Total Resources	84,131,000	87,512,000	76,192,600	65,353,000	61,403,000	49,152,000	33,553,000
Total Road Fund Expenses	34,259,000	48,583,400	49,703,000	42,075,000	50,370,000	45,530,000	43,780,000
Estimated Cash Balance at FYE	49,872,000	38,928,600	26,489,600	23,278,000	11,033,000	3,622,000	-10,227,000
Actual Cash Balance at FYE	48,930,000						
Encumbered/Committed at FYE	4,420,000	10,583,000	6,350,000	12,100,000	8,400,000	8,700,000	0
Reserves at FYE Subject to Rebudget	45,452,000	28,345,600	20,139,600	11,178,000	2,633,000	-5,078,000	-10,227,000

## **Needs Assessment And Capital Expenditures**

#### Needs Assessment in the TSP

The Needs Assessment in the TSP identified rural and urban road segments that met basic criteria for upgrades to County standards. A subset of 70 projects, mostly on the rural system and totaling about \$101 million, are on a list of projects that are planned for construction over the next twenty years.

#### **Needs from City TSPs**

In addition to projects identified from the Needs Assessment, projects have been identified in adopted TSPs for the cities within Lane County (Florence's TSP is pending final adoption by the County as of this writing). Total capital needs on County Roads identified by the Lane County TSP and City TSPs is an estimated \$194 million. Table 12 shows a listing of these project totals by TSP.

				2002 Status			
System Plan	Number of Projects	Total Projected Cost	Completed	Programmed	Unprogrammed		
Coburg TSP	3	\$ 1,450,000	\$ 1,450,000				
Cottage Grove TSP	8	\$ 3,240,000	\$ 660,000		\$ 2,580,000		
Creswell TSP	1	\$ 200,000			\$ 200,000		
Dunes City (1)	n.a.	n.a.		n.a.	n.a.		
Florence TSP (2)	3	\$ 2,100,000			\$ 2,100,000		
Junction City TSP	11	\$ 9,370,000		\$ 500,000	\$ 8,870,000		
Lowell (1)	n.a.	n.a.		n.a.	n.a.		
Oakridge TSP	4	\$ 2,450,000			\$ 2,450,000		
<i>TransPlan</i> (Eugene /Springfield TSP)	33	\$ 71,020,000	\$ 7,325,000	\$43,400,000	\$ 20,295,000		
Veneta TSP	3	\$ 2,420,000			\$ 2,420,000		
Westfir (1)	n.a.	n.a.		n.a.	n.a.		
Subtotal Urban TSP	66	\$ 92,250,000	\$9,435,000	\$43,900,000	\$ 38,915,000		
Lane County TSP	70	\$ 101,315,000		\$21,360,000	\$79,955,000		
Total Projects	136	\$193,565,000	\$9,435,000	\$65,260,000	\$ 118,870,000		

 Table 12: Summary of Identified Capital Needs, Lane County Road System in adopted City TSPs and County TSP

(1) No TSP. Any capital needs included in Lane County TSP totals.

(2) Projects derived from Draft Florence TSP. Projects subject to change

Notes:

a. Cost estimates for unprogrammed City TSP projects are taken from the respective TSPs and have not been adjusted to reflect current dollars.

b. Cost estimates for all programmed projects are taken from the 2003-2007 Lane County Capital Improvement Program.

c. Unprogrammed Lane County TSP project costs are estimated using a per-mile unit cost of \$625,000 for rural projects and \$2,050,000 for urban projects.

d. Cost estimates are subject to change based on, but not limited to, factors such as changes in project scope, unforeseen construction costs, inflation, and the application of more detailed engineering and design analysis during project development.

e. Total costs are shown on joint projects. The County's share may be less.

## **Capital Expenditure History**

Table 13 on the following page is a history of capital expenditures on the County Road System, both urban and rural, for FY 1984-2001. This illustrates a long track record of investment around the County on a wide variety of roadways. Expenditures programmed in the CIP over this period totaled over \$250 million. Over \$56 million of this total were payments to cities under the County-City Road partnership program. These are listed under "Payments to other Agencies" in the CIP, but are primarily used by cities for operations, maintenance, and preservation. Subtracting out this total, over \$190 million was invested in capital road projects by the County for the period FY 1984-2001.
# Table 13: Road Fund Capital Expenditures for FY 84/85-FY 01/02Category

Geographic Area	Total	<u>c</u>	General Construction	County/City Partnership	Special <u>Payments</u>	Preservation Projects	<b>Operations</b>	<u>C</u>	Economic Development	Assisted <u>Housing</u>	Misc
Eugene \$	93,312,880	\$	36,740,009	\$ 30,594,457	\$ 14,649,031	\$ 8,757,946	\$ 5,329	\$	242,634	\$ 2,323,475	\$ -
Springfield \$	33,464,143	\$	8,321,964	\$ 11,727,495	\$ 7,011,593	\$ 2,056,209	\$ -	\$	3,868,440	\$ 478,441	\$ -
Subtotal Metro Area \$	126,777,023	\$	45,061,973	\$ 42,321,952	\$ 21,660,624	\$ 10,814,156	\$ 5,329	\$	4,111,074	\$ 2,801,916	\$ -
Small Cities											
Coburg		\$	2,934,676	\$ 802,249	\$ 88,032	\$ 52,836	\$ -	\$	-	\$ -	\$ -
Cottage Grove		\$	1,689,160	\$ 2,878,000	\$ 886,011	\$ 192,394	\$ -	\$	157,608	\$ -	\$ -
Creswell		\$	217,811	\$ 956,016	\$ 22,046	\$ 61,612	\$ -	\$	-	\$ -	\$ -
Dunes City		\$	1,449,387	\$ 1,086,875	\$ 139,005	\$ 747,249	\$ -	\$	-	\$ -	\$ -
Florence		\$	649,740	\$ 2,485,243	\$ 338,835	\$ 401,296	\$ -	\$	950,000	\$ -	\$ -
Junction City		\$	599,483	\$ 1,379,265	\$ 79,034	\$ 801,580	\$ -	\$	-	\$ -	\$ -
Lowell		\$	583,282	\$ 566,417	\$ 92,050	\$ 501,729	\$ -	\$	187,903	\$ -	\$ -
Oakridge		\$	332	\$ 1,486,268	\$ 245,008	\$ -	\$ -	\$	1,039,515	\$ -	\$ -
Veneta		\$	-	\$ 1,702,473	\$ 733,215	\$ 26,414	\$ -	\$	-	\$ -	\$ -
Westfir		\$	-	\$ 390,156	\$ 153,088	\$ 19,658	\$ 6,056	\$	-	\$ -	\$ -
Subtotal Small Cities \$	29,779,007	\$	8,123,871	\$ 13,732,962	\$ 2,776,323	\$ 2,804,769	\$ 6,056	\$	2,335,026	\$ -	\$ -
Subtotal Rural Areas \$	86,395,801	\$	54,345,549	N.A.	N.A.	\$ 27,768,025	\$ 4,179,126	\$	103,101	\$ -	\$ 7,251,825
Total Countywide \$	250,203,657	<b>\$</b> 1	107,531,393	\$ 56,054,914	\$ 24,436,947	\$ 41,386,949	\$ 4,190,511	\$	6,549,201	\$ 2,801,916	\$ 7,251,825
Other Special Payments					\$ 2,764,267						

GRAND TOTAL \$ 252,967,924

# 6.3. NEEDS ASSESSMENT METHODOLOGY AND RESULTS

Identification of transportation improvement projects is an essential part of transportation system planning. The Needs Assessment is the starting point for identifying road project candidates for modernization, reconstruction, or modification. As the rural major and minor collector system is the most extensive component of the County's transportation infrastructure, it was analyzed on the basis of six criteria and prioritized using a point system. The County's urban collector and arterial system was also analyzed. Local roads were not analyzed in the needs assessment. The six criteria used for the assessment include:

- Pavement Condition Index
- Pavement Structure (Crushed Based Equivalent, or CBE)
- Roadway Width
- Crash Rate
- Average Daily Traffic (ADT)
- Level of Service (LOS)

In addition to the above technical considerations, a land use-based analysis of bicycle and pedestrian facilities serving local destinations in rural developed areas was completed, for both State and County Roads. The inventory methodology and results are discussed in this chapter following the Summary of Geometric/Technical Needs. For areas inside urban growth boundaries, bicycle and pedestrian facility needs are identified by the corresponding cities.

The technical needs assessment and evaluation of bicycle and pedestrian facilities near local destinations were used to develop the TSP project list.

Bridges are evaluated biennially based upon federal requirements. A seismic evaluation was also completed in 1995. A description of these evaluations is included in this section.

Finally, planning and assessment summaries for the state highway system, and recommendations for bicycle and pedestrian improvements to serve local travel on state facilities in rural developed areas concludes this section.

## **Summary Of Geometric/Technical Needs Assessment Findings**

The road system was assessed in terms of safety, function, and structural condition. In the process, current and projected future conditions were determined and deficiencies were identified. Overall, the greatest deficiency found in the needs assessment is sub-standard road widths. The analysis shows that a significant number of road segments do not meet the minimum desirable width standards based upon functional class, terrain, and ADT. Structural deficiencies were the next most significant issue, with a number of road segments having less than desirable CBE. Safety concerns were given special consideration by calculating and evaluating crash rates. The analysis demonstrated that safety was not a systemic problem. The Pavement Condition Index shows that road surfaces are, for the most part, in good condition. Finally, Average Daily Traffic and Level of Service analyses show that capacity constraints are an issue isolated to the Eugene metro area, and lack of capacity is not expected to be a concern on the majority of the rural road system over the TSP planning period.

An overall point total was given to "deficient" collector and arterial segments based upon the assessment criteria. Segments with a higher point total were identified for potential projects and incorporated into the TSP Project List after review by County engineering staff. Appendix G shows the needs assessment data, consisting of the points assigned to collector and arterial segments found to be "deficient" in any one of the assessment criteria categories. The point assignment key can also be found in Appendix G.

The following sections detail the criteria and results of the Needs Assessment. Explanations are also provided defining each criterion and the reason it was used.

#### **Pavement Condition**

A major goal of the 1991 Road Fund Financial Plan was to maintain and preserve at least 85% of the County's roads in fair or better pavement condition. In terms of average ratings, the Pavement Condition Index (PCI) for County Roads is higher compared to the past several years. In 1986 the average County Road scored 72 out of 100 possible points. By 1995 the average had increased to 77, with highest ratings on the rural component of the system. Since then, higher ratings have been recorded on the urban component of the system. The current average has increased to 84 for all County Roads, including arterials, collectors, and local roads. Table 14 shows PCI in terms of share of miles in fair or better condition.

	Miles in Fair or	Percent in Fair or	Miles with
Functional Class	<b>Better Condition</b>	<b>Better Condition</b>	No PCI Data
2-Rural Minor Collector	279.3	80.1%	69.1
3-Rural Major Collector	151.3	99.5%	0.7
4-Rural Major Collector (fed)	196.1	93%	10.8
7-Urban Collector	22.8	92.3%	0.9
8-Urban Minor Arterial	17.5	92.3%	0.05
9-Urban Principal Arterial	7.5	100%	0

**Table 14: Current Pavement Condition Index** 

With some exceptions, the pavement condition rating is generally good for roads in the County system. Those with insufficient PCI are typically addressed by the County's pavement preservation program.

#### **Pavement Structure**

The strength of the pavement structure of a roadway, typically expressed as an equivalent depth of crushed road in inches, or Crushed Based Equivalent (CBE), is an indicator of the underlying structural integrity of the roadway. By converting different pavement types to a CBE, we can compare asphalt, concrete, or bituminous treatment (oil mat) roads. CBE is measured via coring samples taken from the paved road surface. A lower CBE may indicate that there is not a sufficient material base, which may expedite road failure. Factors such as traffic volume, axle weight, and soil types affect the durability of the roadway. In the assessment, arterials and collectors with a CBE less than 16 inches were considered insufficient. The data revealed that many of the roads did not meet this threshold, as shown in Table 15 below.

Table 15. Crusheu Baseu Equivalent Data								
Functional Class	Miles <16-inches	Percent <16-inches	Miles with no CBE					
			Data					
2-Rural Minor Collector	147.8	42.4%	45.8					
3-Rural Major Collector	22.6	14.9%	30.9					
4-Rural Major Collector (fed)	12.4	5.9%	16.5					
7-Urban Collector	8.2	33.3%	9.5					
8-Urban Minor Arterial	2.1	11.1%	6.9					
9-Urban Principal Arterial	No Data		7.4					

Table	15:	Crushed	Based	Ea	uiva	lent	Data
I GOIC		OI abiica	Dubeu			circuit.	Dutt

While the miles of road not meeting the CBE threshold are significant, this alone does not make a segment a candidate for reconstruction. Rather this serves in combination with other factors as an indicator that further study is required. Of particular note are those roads that are designated as "load limited," meaning heavy weight truck traffic is restricted to some degree, and also roads that are known to serve a larger number of trucks. Heavy truck traffic places greater stress on the roadbed, thus a larger CBE is required to support the loads. It is also clear that a number of segments have not been cored and have no CBE measurement. As some of these road segments are programmed into the project list for reasons other than CBE deficiency, this will presumably be tested as they are reconstructed or modified.

### **Road Width**

The width assessment for rural County Roads is based on Functional Class, ADT and terrain, and includes

space for two travel lanes and shoulders on each side. Two-lane urban arterial and collectors use a single minimum standard of 32-feet, which represents travel lanes and bike lanes on each side. The minimum tolerable road widths used to screen the adequacy of the road system are shown in Table 16. The road design standards were in the process of development when the needs assessment was completed, so these widths may vary slightly from the road design standards to be adopted concurrently with the TSP.

Table 10: Winning Kodu Widths								
Type of Terrain & Minimum Widths								
Road Type	ADT	Level	Rolling	Mountainous				
Rural Collectors	<100	22'	20'	18'				
Rural Collectors	100<500	26'	22'	20'				
Rural Collectors	500<1500	30'	26'	22'				
Rural Collectors	1500 & greater	34'	30'	26'				
Urban Arterials/Collectors	NA	32'	32'	32'				

Table IV. Minimum Kuau Wiuus	Table	16:	Minimum	Road	Widths
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Road segments were screened using the minimum width standards from Table 16. The percent of roads not meeting the standard is shown in Table 17.

Functional Class	Miles Below Minimum Width	Total Miles	Percent Below
Functional Class	vv lutii	Total Whites	
2-Rural Minor Collector	186	348.6	53.4%
3-Rural Major Collector	63.2	152	41.6%
4-Rural Major Collector (fed)	71.8	210.7	34.1%
7-Urban Collector	20.2	24.6	82.1%
8-Urban Minor Arterial	7.4	18.9	39.2%
9-Urban Principal Arterial	1.8	7.4	24.3%

Table 17: Roadways Failing to Meet Minimum Width Standard

Clearly, it is not practical or desirable to pursue widening projects for all roads that do not meet the minimum width. It has also been taken into consideration that many of these roads are within a few feet or less from the minimum. As such, it is not a priority of the County to modify these roads solely on the basis of the width assessment. Instead, multiple factors from the needs assessment were considered when generating the project list.

#### **Crash Rate**

Safety is a chief concern for the road system. Crash data, evaluated by road segment, is compiled and analyzed to identify potential problem areas. This data was used to flag areas with a maximum crash threshold above 2 crashes per million vehicle miles traveled on any particular segment in the road inventory. The results show that 7.8% of the County's road segments had a crash rate above 2. However, the statistical results can be misleading since short road segments with lower ADT will appear to have higher rates than longer road segments and/or higher ADT, although they may have only one recorded crash. In addition, the presence of a crash does not necessarily indicate a safety problem with the road, but perhaps driver error or poor weather conditions instead. Consequently, segments with crash rates above the maximum were analyzed individually to determine any trends or systemic problems with the roadway. In the process, many of the road segments were eliminated from further concern. Remaining segments were incorporated into the project list.

#### **Average Daily Traffic**

Average Daily Traffic (ADT) data is kept for most County Roads. The ADT values are determined from 48-hour counts that are averaged and adjusted for seasonal variations in traffic flow by month. The counts are totals for both directions of traffic on a two-way street, unless the roadway is a ramp or is one-way. ADT on most County Roads is relatively low, while higher ADT values are found on County Roads

in the Eugene-Springfield metro area. More heavily traveled roads are typically given priority when considering improvement projects. ADT data also helps identify areas that may have current or projected capacity problems. It is not expected that there will be capacity problems on the majority of the County's rural road system. Table 18 is a summary of ADT levels for each functional class.

Table 16: Average Dany Trainc Summary							
Functional Class	Mean ADT	Range					
Rural Minor Collector	737	20-4,000					
Rural Major Collector	1,439	90-6,150					
Rural Major Collector (fed aid)	2,797	120-11,850					
Urban Collector	3,212	340-12,950					
Urban Minor Arterial	8,008	1,350-26,550					
Urban Principal Arterial	11,360	2,800-32,900					

Table	18:	Average	Daily	Traffic	Summar	•
Lanc	10.	11 ver uge	Duny	11 unit	Summar	J

The highest volume road is the urban arterial Delta Highway (South of Green Acres Road), at 32,900 ADT. The highest ADT in the rural system is 11,850 on Prairie Road at mileposts 0.2-0.7. The lowest ADTs are recorded on a number of outlying rural minor collectors (less than 100 in some cases). A number of higher-volume County Roads in the Eugene/Springfield metro area have been improved in recent years or are programmed to be improved through the CIP process.

The assessment chose urban segments greater than 5,000 ADT and rural segments greater than 10,000 ADT for further analysis, as shown in Table 19. The ADT threshold could be breached based on current values or year 2020 projections. ADT projections were roughly approximated assuming 2 percent annual growth in ADT over the 20-year period. Again, using this threshold indicated that capacity constraint issues are not a major concern on the County's rural collector system. The ADT assessment was used mainly to highlight high-volume roads for additional study. The few segments with potential capacity problems have been incorporated into the project list.

Functional Class	Rural Miles at 10,000 ADT and Greater	Urban Miles at 5,000 ADT and Greater	Percent of Total Miles
2 – Rural Minor Collector	0		0%
3 – Rural Major Collector	0		0%
4 – Rural Major Collector (fed aid)	2.0		0.9%
7 – Urban Collector		9.1	37%
8 – Urban Minor Arterial		15.1	79.9%
9 – Urban Principal Arterial		6.8	91.9%

Fable	19:	Higher	ADT	Roads
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#### Level of Service

Level of Service (LOS) is a performance measure indicating the quality of the flow of traffic on a roadway. LOS is graded on a letter scale from A to F, with A being the highest level of service and F being the lowest. At LOS A, traffic flows freely, selecting desired travel speeds with ample passing opportunities. At LOS F, traffic flow is forced, the traffic volume has exceeded the capacity of the roadway to handle it and there are no passing opportunities. LOS D is generally considered to be the lowest tolerable level of service. For the purpose of assessing the County's road system, LOS A-D were acceptable, while E and F were not.

Level of service analysis was done for two-lane rural County Roads in 1997. The methodology used for the LOS analysis is shown in Appendix D. An expected result of the 1997 analysis indicates that 76 percent of the relatively low-volume rural collector system operates at LOS A. Table 20 shows the complete results of the 1997 analysis for the rural system, by functional class.

	Functional Class					
	2 – Rural Minor	3 – Rural Major	4 – Rural Major			
	Collector	Collector	Collector (fed aid)			
LOS A Miles	269.6	123.1	146.1			
Percent of Total	77.3%	81%	69.3%			
LOS B Miles	11	23.1	41.7			
Percent of Total	3.2%	15.2%	19.8%			
LOS C Miles	0.7	3.6	21			
Percent of Total	0.2%	2.4%	10%			
LOS D Miles	0	1.1	1.8			
Percent of Total	0	0.7%	0.9%			
LOS E Miles	0	0	0			
Percent of Total	0%	0%	0%			
LOS F Miles	0	0	0			
Percent of Total	0%	0%	0%			
No LOS Rating	67.6	0.8	0.02			
Percent of Total	19.4%	0.5%	0%			

Table 20: 1997 LOS Analysis for the Rural System

Approximately 643 of the 711 rural miles were operating at acceptable levels of LOS A, B, C, or D in 1997. LOS was not calculated for a number of minor collectors due to lack of ADT data or narrow road widths. These are presumably very low-volume roads and are not of concern for level of service problems.

A 20-year level of service projection was also calculated to the year 2017. The 2017 analysis found that six rural collector segments totaling 2.9 miles were projected to be at LOS E in 2017. These segments were analyzed and incorporated into the project list. No segments were projected to be operating at LOS F in 2017.

## **Bicycle And Pedestrian Facilities In Developed Areas**

Inside urban growth boundaries, bicycle and pedestrian facility needs are evaluated by the corresponding cities. Proposed urban bicycle and pedestrian facility improvements on County Roads are included in both the County's and cities' TSP Project Lists. For rural Lane County, the road system is the primary bicycle and pedestrian network. As such, the roads inventory with regard to roadway width is the primary resource to identify these facilities in rural areas. The adequacy of paved shoulders can be determined by looking at the total roadway width. The Needs Assessment described in Chapter 6.3 identified County Roads with inadequate widths. ADT and terrain are considered in determining whether road widths are adequate. Additional shoulder width for bicycle use would normally be considered if public involvement during the Capital Improvement Program process indicates that this is a priority.

The Needs Assessment analysis only considers geometrics and technical operational characteristics of the road system. Under the Transportation Planning Rule, bicycle and pedestrian facilities serving local destinations within developed areas must also be evaluated. As such, land use characteristics must be integrated into the analysis.

Lane County inventoried bicycle and pedestrian facilities in the 33 (of 35) unincorporated communities where local bicycling and walking destinations exist. Each community was mapped to show zoning and addresses, roads by functional class, and ADT. Using data available from the Regional Land Information Database (RLID), and the County Assessment and Taxation and Land Management Divisions, the locations and types of local destinations were also identified. Included as local bicycling and walking destinations were groceries, eateries, taverns, schools, banks, granges, community centers, offices, churches, parks, and large employment areas near residential areas. Roads within one-quarter to one-half mile were then identified for subsequent field investigations.

During the field investigations in each community, all roads within bicycling and walking distance to local destinations were listed and their widths were recorded. Guidelines in the 1995 *Oregon Bicycle and Pedestrian Plan* indicate that roads with traffic volumes of less than 1,000 vehicles a day are generally suitable as shared roadways (page 17). Therefore all roads with ADTs lower than 1,000 were excluded from recommendations.

Eighteen county and eleven state road segments were identified as meriting wider shoulders and/or sidewalks to accommodate bicycle and pedestrian travel to local destinations in rural developed areas. The recommended state highway improvements are listed in the State Highway System section that concludes this chapter. The County segments were added to the TSP project list. The detailed inventory of bicycle and pedestrian facilities serving local destination needs is kept in the County Public Works Engineering Transportation Planning office.

# **Bridges**

Bridges must be inspected every 24 months to comply with Federal Highway Administration requirements. The County normally retains an independent engineer to complete bridge inspections. The *Bridge Inspection and Load Rating Report* is updated with each round of inspections. This report is maintained in the County Public Works Engineering Division, Transportation Planning office. Bridges are load-rated based upon three levels of use for an estimated number of annual truck trips for up to five axle trucks (trucks with additional axles must be individually load rated):

- The *Inventory* rating represents the maximum loads that can pass over the bridge a large number of times without resulting in significant damage to the bridge.
- The *Operating* rating represents the maximum loads the bridge can sustain on an occasional basis, controlled by permits issued by the County.
- The *Recommended Posting* represents the maximum loads that, in the opinion of the independent engineer, should be allowed to cross the bridge without special approval by the County.

In addition, bridges are rated in two ways to evaluate their condition:

- The general condition of each bridge is also evaluated and rated from 0 (lowest) to 9 (new condition).
- A *sufficiency rating* is calculated by the State Bridge Maintenance Section, based upon structural adequacy and safety, functional obsolescence, and use.

Bridges that have a general condition rating of 8-9 are considered to be in good condition. A rating of 5-7 is considered fair and requires monitoring for defects. A rating of 4 or less is considered poor, and deserving attention as soon as possible. Generally speaking, Lane County's bridges are in good condition. As of the latest published data for inspections performed in 1998 and 1999, 91% of Lane County's bridges scored a 7 or higher general condition rating. Ten bridges, all older, one-way covered bridges scored a 4 or lower. Bridges that are rated in poor condition are no longer in operation or are weight-restricted. In addition, these bridges receive immediate temporary repair and are scheduled for more permanent rehabilitation through the Capital Improvement Program.

The geological record indicates that the region is susceptible to large-scale earthquakes. As such, bridges have been given special consideration for their ability to withstand future seismic activity. A CH2M Hill seismic rating report was commissioned by ODOT to look at the earthquake preparedness of the State's bridge system. The report analyzed and rated bridges based on two primary factors—vulnerability and criticality.

The vulnerability rating indicates bridge adequacy based on location and the composition of the bridge structure. The report assigns bridges to vulnerability groups based on particular bridge details that have performed poorly in seismic events (See Table 21). Criticality indicates the importance of the bridge in the transportation network. In other words, bridges located on important lifeline routes identified by ODOT are given a higher rating due to the critical function they serve for emergency services. By

combining the vulnerability and criticality ratings, agencies are able to prioritize and target seismic improvements and/or bridge replacements where it is needed most.

Table 21 shows the vulnerability groups used by CH2M Hill and the breakdown of Lane County bridges in these groups.

Vulnerability Group	Total Bridges	Percent of Total
1A	8	3%
1B	87	29%
1C	98	33%
1D	0	0%
2A	3	1%
2B	37	13%
2C	62	21%

Table 21: Lane County Bridges by Vulnerability Group

1A – Unstable bearings

1B-Stable bearing with inadequate anchorage and/or seat capacity

1C - Single span with inadequate anchorage and/or seat capacity

1D - In-span hinges with no other superstructure deficiencies

2A – Single column piers

2B – Three substructure deficiencies

2C - One or two substructure deficiencies

The groups beginning with 1 represent various superstructure deficiencies (bridge deck, beams, girders), and the groups beginning with 2 represent substructure deficiencies (columns, bentwalls). The substructure supports the superstructure above.

The complete report "Seismic Vulnerability of Local Agency Bridges" by CH2M Hill was released in 1995 and is available for viewing from the Road Maintenance section of Lane County Public Works.

## **State Highway System**

Capital improvements on state facilities are managed through the State Transportation Improvement Program (STIP). In many cases, City TSPs identify urban ODOT facility needs in their project list, which may then be promoted to the STIP. The Lane County TSP makes recommendations to the STIP for State facilities where the addition of bicycle and pedestrian facilities is warranted near rural communities (See *Recommendations for State Facilities Serving Rural, Local Bicycle-Pedestrian Needs* in this section). However, project identification in terms of detailed operational and geometric analysis of the state highway system was not part of the initial TSP needs assessment.

ODOT's development of conditions reports (showing detailed safety, geometric, and operating conditions) for highway corridors in Lane County assists in the assessment of state facilities, but these are not complete. As additional conditions reports are finished and give a more clear understanding of state facilities in Lane County, deficient areas can be better identified and additional projects may be incorporated into the County project list for future STIP development. Until then, the TSP will not include an extensive assessment of rural State facility needs. Lane County continues to support current and future ODOT projects that are otherwise consistent with the TSP and applicable federal, state, and local regulations.

Following is the status of conditions reports and planning activity summaries for major ODOT facilities in Lane County, followed by recommendations resulting from the County's analysis of bicycle and pedestrian facilities serving rural, local travel needs (discussed earlier in this chapter) for State facilities.

#### I-5 from Washington to California

The I-5 State of the Interstate Report – 2000 is an assessment of the existing and forecast safety, geometric, and operating conditions on Interstate 5 through Oregon. The conditions report is a CD-ROM

that includes text, maps, and tables. Refinement plans have been developed for several noteworthy interchanges, including the Coburg, Beltline, and Creswell interchanges in Lane County.

## US 101 – Oregon Coast Highway

Highway 101, a designated National Scenic Byway and All American Road, is regarded for its natural, historic, and scenic features, and the Pacific Highway Scenic Byway Plan was produced with the following objectives: enhancement, stewardship, awareness, interpretation, and access. Many features in Lane County have been identified for protection along the corridor, including bridges, parks, and other recreational attractions. The Lane County Board of Commissioners endorsed the completed Pacific Coast Scenic Byway Management Plan in November 1997.

## OR 58 From Eugene to US Highway 97

No corridor level planning has been completed for OR 58. A conditions report may be produced at some point in the future, but is yet to be programmed into ODOT's budget.

### **OR 126 from Florence to Eugene**

Lane Council of Governments is developing a Highway 126 West conditions report for ODOT. The CD-ROM format will be similar to the I-5 State of the Interstate Report, with safety, geometric, and operating conditions for the Florence-Eugene highway.

Previously, ODOT commissioned Lane Council of Governments to complete a Phase I interim strategy for the Florence-Eugene corridor. The report was released in 1998 and outlines Corridor Strategy development, transportation goals, and management objectives.

## **OR 126 from Eugene to Santiam Junction**

Lane Council of Governments studied the eastern corridor of Highway 126 for ODOT. The resulting Phase I Interim Corridor Strategy was published in May 1998. The Strategy summarizes the results of stakeholders' meetings, a public outreach program, and professional review. Some of the more frequently cited concerns for the corridor include:

- Conflicts between local traffic and the efficient and effective movement of goods and services through the Corridor;
- Increasing traffic and congestion, especially in Springfield and eastward towards Walterville;
- Providing for a safe and efficient highway while protecting the Corridor's scenic attributes and important natural resources;
- Safety and congestion problems associated with the large number of residential driveways that directly access the highway;
- Maintain the Corridor's function as an important link in the State's transportation system while safeguarding the character and communities within the rural portions of the Corridor;
- Ensuring safe transport of hazardous materials through the Corridor;
- Unsafe conditions;
  - Created or exacerbated by driver behavior
  - Associated with highway characteristics and maintenance
  - For bicyclists, pedestrians, and bus riders
- Effects of growth in the Eugene-Springfield metropolitan area, Deschutes County, and new rural residential development on traffic volumes in the Corridor;
- Inappropriate amount of through truck traffic given the design and character of the highway;
- Widening the highway to accommodate increased traffic will attract more through traffic and increase, not decrease, congestion.

### **Other Area Plans**

ODOT is working on a refinement plan for Highway 99, for the segment within the Junction City UGB, with the technical background work already complete. On ODOT's list for future funded planning analysis are the following:

- West 11th Expressway Plan—Beltline Intersection to Oak Hill;
- OR 126/Main facility refinement plan;
- Beltline capacity study; and
- I-5 Refinement Plan--I-105 to OR 58.

#### **Recommendations for State Facilities Serving Rural, Local Bicycle-Pedestrian Needs**

As discussed earlier in the Needs Assessment Chapter, an analysis of facilities serving local destinations in unincorporated communities was completed in Summer 2002. This section provides recommendations that resulted from that evaluation for State facilities. (Needs for County facilities were incorporated into the TSP Project List).

In addition to serving as throughways, state highway facilities provide the main access to many unincorporated communities and the stores, schools, and other local destinations serving their residents. While staff was primarily concerned with County Road facilities in completing the analysis, shoulder widths on state roads were also recorded. Roads with inadequate widths were noted. Roads with an ADT lower than 1,000 were then excluded. A list of 11 state road sections within <sup>1</sup>/<sub>4</sub> to <sup>1</sup>/<sub>2</sub> mile of local destinations was compiled and is shown in the table below. The list was prioritized in terms of ADT and existing shoulder width. The list, which has also been distributed to ODOT personnel, is provided here as a recommendation for incorporation into the Statewide Transportation Improvement Program (STIP) - the State equivalent of the County's CIP. The County's priority ranking and recommendations are based upon limited analysis and therefore could change after closer evaluation by ODOT personnel.

	State fighwa	y racinties r	Table 22. State finghway Facilities Recommended for Dike-1 cuest fair improvements									
		Priority		Existing								
State Road	Location	Ranking	ADT	Shoulder	<b>Recommendation</b> *							
Hwy 99 South	Goshen	1	7000	1', varies	Widen to include 6'-8' shoulders							
Hwy 36	Cheshire	2	3800	0-2'	Widen to include 6'-8' shoulders							
Hwy 99 South	Saginaw	3	4100	1'	Widen to include 6'-8' shoulders							
McKenzie Hwy	Walterville	4	8000	3'	Widen to include 6'-8' shoulders							
McKenzie Hwy	Leaburg	5	5100	3'	Widen to include 6'-8' shoulders							
McKenzie Hwy	Nimrod	6	4100	3-4'	Widen to include 6'-8' shoulders							
Hwy 126 West	Mapleton	7	6800	4'	Widen to include 6'-8' shoulders							
Hwy 101	Glenada	8	12400	4-8'	Widen to include 6'-8' shoulders							
McKenzie Hwy	Vida	9	4600	4-6'	Widen to include 6'-8' shoulders							
Territorial Hwy	Crow	10	1800	0-1'	Widen to include 4'-6' shoulders							
Territorial Hwy	Lorane	11	1500	None	Widen to include 4'-6' shoulders							

Table 22: State Highway Facilities Recommended for Bike-Pedestrian Improvements

\*Shoulder widening is recommended for both sides of the roadway.

The 2002-2005 STIP already includes four of the sections listed above, for Goshen, Walterville, Leaburg, and Vida. For the Goshen area, Highway 99 South is identified for pavement preservation overlay (STIP key#12379). ODOT personnel indicate that in the initial publication of STIP projects, widening for bicycle/pedestrian facilities is typically not included in pavement preservation unless a legitimate safety issue has been identified. For Walterville, Leaburg, and Vida, the STIP identifies a pavement preservation project for the McKenzie Highway (STIP key #10808), including significant bicycle and pedestrian safety elements.

# 6.4. TSP PROJECT LIST OVERVIEW

The project list following the Goals and Policies for this section consists of 136 capital improvement projects on County Roads. Seventy of the projects were derived from the Needs Assessment, which analyzed the structural and operational characteristics of the County's roadways, or the adopted 2003-2007 Lane County CIP. The remaining projects have been identified in City TSPs. Projects from all of these sources have been incorporated into the County list.

The project list shows a project number, name, and milepost limits of the proposed project. The source of the project is identified (e.g. Coburg TSP) and a general description is given as well as an estimated cost. Three versions of the project list are presented, with one sorted in alphabetical order, the second is sorted by project number, and the third is sorted by the source TSP. The precise cost and scope of each project is subject to change as it is promoted through public involvement and the CIP process. During the CIP process, projects are given a specific design-engineering concept in accordance with applicable design standards and environmental and topographical constraints. The concept is often modified based on public input and/or direction from the County Board of Commissioners before a final design is adopted.

## **Goals And Policies: Financing And Recommended Improvements**

# Goal 23: Maintain long-term County Road Fund stability by making annual budget adjustments and following adopted priorities.

Policy 23-a:	Adjust operating and capital expenditures through the annual budget process to maintain long term County Road Fund viability. Maintain a "prudent person" County Road Fund reserve. An appropriate "prudent person" reserve is generally considered to be 10% to 15% of gross receipts.									
Policy 23-b:	dentify and consider additional potential funding sources and strategies, such as a ocal option gas tax or vehicle registration fee, in the event of loss or reduction of existing funding sources.									
Goal 24: Use the G Road Fu	Goal 24: Use the County Road Fund effectively by following the priorities established in the 1991 Road Fund Financial Plan (updated 1995).									
Policy 24-a:	As a first priority (Core Program), maintain and preserve the County Road and bridge system.									
Policy 24-b:	As a first priority (Core Program), provide a safe roadside environment for the traveling public on the County Road System.									
Policy 24-c:	As a second priority (Enhanced Program) and as funding allows, improve the County Road System to meet modern County design and safety standards.									

- Policy 24-d: As a second priority (Enhanced Program) and as funding allows, share timber receipt payments from the County Road Fund with cities for general street purposes and maintenance of City street systems.
- Policy 24-e: As a third priority (Assistance Program) and as funding allows, provide economic development road infrastructure financing to assist in economic development.
- Policy 24-f: As a third priority (Assistance Program) and as funding allows, share timber receipt payments from the County Road Fund, through the CIP process, with cities and ODOT for City or ODOT roadway projects of mutual interest.

# Goal 25: Maintain effective partnering relationships with cities and the Oregon Department of Transportation (ODOT).

- Policy 25-a: Review annually County-City road partnership agreements to maintain road fund viability and to assist cities in providing road services to urban residents in Lane County.
- Policy 25-b: Evaluate existing road project funding agreements with incorporated cities, and make necessary amendments to allocate an appropriate share of system development charges (SDCs) to the County to cover the cost of improvements on County Roads generated by new development.
- Policy 25-c: Engage ODOT in continuing discussions regarding jurisdiction of roadways; partnerships in funding programs; response to ODOT policy initiatives; and partnerships for a seamless service delivery system through sharing of resources, collocation of facilities, or consolidation of functions.

	Projects on Lane County Roads – 20-Year Project List Sorted in Alphabetical Order								
Project			Begin	End				Estimated	
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost	
23	6th Avenue West	City Limits to Oaklea Drive	0.000	0.330	0.330	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #1	\$50,000	
22	10th Avenue West	Rose Street South to Oaklea Dr	0.000	0.346	0.346	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #2	\$50,000	
18	18th Avenue East & Deal St Modernization	Highway 99E to Dane Lane	0.000	0.509	0.509	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections., #4	\$700,000	
20	18th Avenue West Modernization	Hwy 99W to Oaklea Drive	0.000	0.854	0.854	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections such as Oaklea Dr and Rose Street., #3	\$1,200,000	
40	18th Avenue**	Bertelson Rd to Willow Creek Rd			0.710	TransPlan	Urban Standards, 2 lane facility, #303	\$1,100,000	
35	31st Street	Hayden Bridge to U Street	0.542	0.905	0.850	TransPlan	Urban Standards, 2-3 lane facility, #765	\$1,300,000	
111	Alvadore Rd	Hwy 36 to Snyder Rd	0.000	6.100	6.100	LC TSP	Rural Modernization	\$3,800,000	
112	Applegate Trail	Hwy 36 to Territorial Hwy	0.000	2.584	2.584	LC TSP	Rural Modernization - Widen shoulders for bike use	\$1,600,000	
101	Arrowhead Street***	Irvington Drive to Barstow Ave	0.000	0.230	0.230	LC TSP	Urban Standards	\$500,000	
47	Aspen St*	Centennial to West D	0.000	0.441	0.441	TransPlan	Urban Standards, 2 to 3 lane facility, joint project Spfd, #809	\$750,000	
103	Awbrey Lane	Prairie Rd to Hwy 99W	0.000	1.340	1.340	LC TSP	Rural Modernization	\$850,000	
97	Beacon Drive East	River Rd to Scenic Drive	0.000	0.749	0.749	LC TSP	Urban Standards	\$1,500,000	
98	Beacon Drive West	River Rd to Prairie Rd	0.154	1.172	1.018	LC TSP	Rural Modernization	\$650,000	
46	Beaver Street Arterial	Hunsaker Drive to Wilkes Drive			0,840	TransPlan (Future List)	R.O.W. acquisition, general construction, new arterial #503	\$1,700,000	
71	Bennett Creek Rd	North River Rd to UGB (bridge)	0.000	1.008	1.008	Cottage Grove	Urban Standards - Widen, upgrade guardrail	\$270,000	

\*\* Project completed or under contract

		Projects on Lane Cou	unty Roads -	- 20-Year Pr	roject List	Sorted in Al	phabetical Order	Projects on Lane County Roads – 20-Year Project List Sorted in Alphabetical Order									
Project			Begin	End				Estimated									
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost									
51	Bloomberg Connector (McVay Hwy Realignment)*	McVay Highway to 30th Ave			0.400	TransPlan	Modification of connection of McVay Hwy to 30th Ave, #297	\$800,000									
78	Blue River Drive	Hwy 126 to Hwy 126	0.000	1.555	1.555	LC TSP	Rural Modernization	\$1,000,000									
15	Bolton Hill Rd	Territorial Hwy to UGB	0.000	1.171	1.171	Veneta	Urban Standards. #B5	\$1,900,000									
11	Bolton Hill Rd	At Territorial Hwy	0.000	0.000	0.000	Veneta	Traffic Signal. Possible joint project with Veneta, ODOT. #B15	\$200,000									
13	Bolton Road East	Territorial Hwy to Huston Rd South	0.000	1.300	1.300	Veneta	Bike-Ped Facilities, #D6	\$320,000									
77	Bridge Street	McKenzie River & Overflow Structure	0.006	0.190	0.184	LC TSP	Bridge Improvements	\$120,000									
116	Briggs Hill Rd*	MP 2.5 to Spencer Cr Rd	2.500	4.010	1.510	LC TSP	Rural Modernization	\$1,250,000									
91	Camas Swale Rd	Butte Rd to Weiss Rd	0.550	7.010	6.460	LC TSP	Rural Modernization	\$4,000,000									
124	Canary Rd	Hwy 101 to Woahink Lake	0.000	0.686	0.686	LC TSP	Rural Modernization	\$450,000									
76	Cedar Flat Rd*	Hwy 126 to East Cedar Flat Rd	0.000	0.500	0.500	LC TSP	Realignment and widening for paved shoulders	\$450,000									
120	Central Rd	Hwy 126 to Fleck Rd	0.000	1.920	1.920	LC TSP	Rural Modernization	\$1,200,000									
125	Clear Lake Rd*	Jensen Lane to Canary Rd	1.670	4.233	2.563	LC TSP	Rural Modernization - Addition of paved shoulders	\$1,700,000									
126	Cloverdale Rd	Hwy 58 to Hendricks Rd (State Highway begins)	0.000	3.276	3.276	LC TSP	Rural Modernization	\$2,000,000									
28	Coburg Industrial Way**	Pearl Street Intersection				Coburg	Traffic Signal Installation and widening of approach to intersection, #B2	\$0 (est. cost included in #28 above)									
82	Coburg Rd	Coburg Rd North to Linn County Line	7.416	12.883	5.467	LC TSP	Rural Modernization	\$3,400,000									
84	Coburg Rd North	Coburg Rd to Linn County Line	0.000	4.115	4.115	LC TSP	Rural Modernization	\$2,600,000									
43	Coburg Rd**	Kinney Loop to Armitage Park	3.229	4.419	1.190	TransPlan	Urban Standards. Reconstruct to three-lane facility to UGB, turn lane at park entrance, rural, #625	\$2,400,000									
70	Cottage Grove- Lorane Hwy	City Limit to Gowdyville	0.830	1.174	0.344	Cottage Grove	Bike-Ped Facilities	\$90,000									
136	Cottage Grove- Lorane Rd	Hawley Cr Rd to Old Lorane Rd	10.879	12.654	1.775	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$1,110,000									
45	County Farm Loop	North to South Section	0.000	0.550	0.550	TransPlan	Urban Standards, 3-lane facility, joint with Eugene, #631	\$825,000									
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\*\* Project completed or under contract

		Projects on Lane Cou	unty Roads -	- 20-Year P	roject List	Sorted in Al	phabetical Order	Projects on Lane County Roads – 20-Year Project List Sorted in Alphabetical Order										
Project			Begin	End		T		Estimated										
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost										
42	County Farm Loop	West to East Section	0.550	1.080	0.530	TransPlan	Urban Standards, 2 lane facility, joint with Eugene, #632	\$800,000										
79	Crest Drive ***	Lorane Hwy to Blanton Rd	0.000	0.873	0.873	LC TSP	Urban Standards/Rural Modernization	\$1,800,000										
63	Dale Kuni Road	Hwy 99 to UGB	0.000	1.430	1.430	LC TSP	Bike-Ped Facilities	\$900,000										
7	Delight Valley School Rd. North	E. Saginaw Rd. to Bachmann Ln.	0.000	0.282	0.282	LC TSP	Bike-Ped Facilities – Widen shoulders	\$175,000										
58	Delta/Beltline Interchange*					TransPlan	Interim/safety improvements; replace/revise existing ramps; widen Delta Hwy bridge to 5 lanes, #638	\$8,000,000										
129	Dexter Rd	Hwy 58 to Barbre Rd	0.000	1.500	1.500	LC TSP	Bike-Ped Facilities	\$950,000										
86	Dillard Rd*	Hwy 99 to ECM	0.000	4.016	4.016	LC TSP	Rural Modernization	\$2,600,000										
32	Division Avenue	Delta Highway to Beaver Street			0.890	TransPlan (Future List)	New frontage road with Willamette River Bridge #512	\$4,000,000										
110	Dorsey Lane	Hwy 36 to High Pass Rd	0.000	1.542	1.542	LC TSP	Rural Modernization	\$950,000										
121	Ellmaker Rd	Hwy 126 to Jeans Rd	0.000	1.114	1.114	LC TSP	Rural Modernization	\$700,000										
118	Fir Butte Rd	Royal Ave to Clear Lake Rd	0.000	2.706	2.706	LC TSP	Rural Modernization	\$1,700,000										
75	Fish Hatchery Rd	Hwy 58 to 1st Street	0.000	1.650	1.650	Oakridge	Bike-Ped Facilities. Joint with Oakridge, #D2.	\$1,000,000										
72	Fish Hatchery Rd	At Hwy 58	0.000	0.040	0.040	Oakridge	Realignment of Fish Hatchery Rd at Hwy 58 approach. Joint with Oakridge, ODOT, #D7	\$100,000										
119	Fisher Rd	Hwy 126 to Royal Avenue	0.000	1.200	1.200	LC TSP	Rural Modernization	\$750,000										
115	Fleck Rd	Territorial Hwy to Central Rd	0.000	2.512	2.512	LC TSP	Rural Modernization	\$1,600,000										
34	Fox Hollow Rd	Donald Street to UGB	8.829	9.329	0.500	TransPlan	Urban Standards, 2 lane facility, #245	\$850,000										
85	Franklin Boulevard East***	I-5 Frontage to Twin Buttes Rd	0.000	1.121	1.121	LC TSP	Rural Modernization	\$2,300,000										
59	Game Farm Rd North*	I-5 to Coburg Rd	0.419	1.690	1.271	TransPlan	Urban Standards, Upgrade to 2-3 lane facility, Joint with Eugene,#654	\$2,200,000										
50	Game Farm Rd South	Game Farm Rd East to Harlow Rd			0.930	TransPlan	Urban Standards, 2 lane facility,#737	\$2,100,000										
95	Gowdyville Rd*	MP 1.89 to Territorial Hwy	1.890	9.034	7.144	LC TSP	Reconstruct and pave gravel road	\$3,100,000										
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\*\* Project completed or under contract

		Projects on Lane Cor	unty Roads -	- 20-Year P	roject List	Sorted in Al	phabetical Order	
Project			Begin	End		<u> </u>		Estimated
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost
54	Green Hill Rd*	Barger Drive to Airport Rd	3.820	5.820	2.000	TransPlan	Rural widening and intersection modifications,#485	\$2,000,000
10	Green Hill Rd*	Barger Drive to W 11th	1.540	3.820	2.280	TransPlan	Urban Standards, Upgrade to 2-3 lane facility, joint with Eugene, #454	\$5,000,000
39	Green Hill Rd**	North Boundary of Airport to Airport Rd			2.060	TransPlan	Closing of existing road and realignment on east boundary of airport property, #486	\$3,000,000
49	Grove Street	Silver Lane to Howard	0.000	0.528	0.160	TransPlan	Bike-Ped, Striped Lane/Route #515	\$0
113	Hall Rd*	MP 4.56 to MP 5.88	4.560	5.880	1.320	LC TSP	Pave gravel portion	\$990,000
62	Harvey Road	At Hwy 99	0.000	0.100	0.100	Creswell	Intersection improvements at Hwy 99, High Priority #9	\$200,000
30	Hayden Bridge Rd (includes 23rd)	Yolanda to Marcola Rd			1.540	TransPlan	Urban Standards, 2 lane facility, #747	\$2,300,000
3	Heceta Beach Rd***	Hwy 101 to Rhododendron Drive	0.000	1.885	1.885	Florence	Bike-Ped Facilities. Listed as project #I-1	\$150,000
24	High Pass Road Modernization	Hwy 99 to Oaklea Drive	0.000	0.859	0.859	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$1,200,000
25	High Pass Road Modernization (Future)	Oaklea Drive to UGB	0.859	1.520	0.661	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$900,000
73	High Prairie Rd	1st Street to UGB	0.000	0.947	0.947	Oakridge	Bike-Ped Facilities. Intersection improvements and shoulders. Joint with Oakridge, Part of #D3 and #D6	\$600,000
90	Hill Rd	Old Mohawk Rd to Marcola Rd	0.000	4.572	4.572	LC TSP	Rural Modernization	\$2,900,000
137	Hills Cr Rd	Jasper-Lowell Rd to Alden Lane	0.000	0.778	0.778	LC TSP	Bike-Ped Facilities - Widen to standard for bike use	\$490,000
38	Horn Lane	N. Park Ave to River Road	0.000	0.928	0.928***	TransPlan	Bike-Ped, Striped Lane or Route, #521	\$150,000
80	Howard Ave	River Road to North Park	0.000	0.956	0.960	TransPlan	Bike-Ped, Striped Lane or Route, #524	\$0
106	Hulbert Lake Rd*	Ferguson Rd to Benton County Line	0.000	2.390	2.390	LC TSP	Reconstruction and drainage improvements	\$1,500,000
48	Hunsaker Lane/Beaver Street*	River Rd to Division Ave	0.000	1.141	1.141	TransPlan	Urban Standards-2 lane facility,#527	\$2,200,000

\*\* Project completed or under contract

		Projects on Lane Cou	unty Roads -	- 20-Year Pi	roject List	Sorted in Al	phabetical Order	
Project			Begin	End				Estimated
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost
12	Huston Road South	Hunter Rd to Perkins Rd	0.272	1.070	0.798	LC TSP	Bike-Ped Facilities. See Veneta TSP #D6	\$500,000
60	Irving Rd at NW Expressway*	Gainsborough Entrance to Prairie Rd			0.300	TransPlan	Construct overpass over NW Expressway and railroad. Signalize access on north side,#530	\$4,200,000
52	Irvington Drive*	River Road to Prairie Rd	0.000	1.479	1.479	TransPlan	Urban Standards,2-3 lane facility, #533	\$4,000,000
55	Jasper Road Extension*	Main Street to Jasper Rd			3.200	TransPlan	Construct 4 lane arterial: phasing to be determined: improve RR X-ing at Jasper Rd; at grade interim improvement; grade separation long range improvement,#66	\$10,400,000
130	Jasper-Lowell Rd	Pengra Rd to MP 5.0	3.874	5.000	1.126	LC TSP	Rural Modernization	\$700,000
132	Jasper-Lowell Rd	Parkway Rd to Pengra Rd	0.000	3.874	3.874	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$2,420,000
16	Jeans Rd	Huston Rd North to Fawver Dr	1.185	3.000	1.815	LC TSP	Bike-Ped Facilities See Veneta TSP #D6	\$1,100,000
33	Lake Drive/N. Park Ave	Howard to Horn Lane***	0.000	0.430	0.430	TransPlan	Bike-Ped, Striped Lane or Route, #536	\$170,000
69	Latham Rd	Hwy 99 to London Rd	0.000	0.965	0.965	Cottage Grove	Bike-Ped Facilities	\$100,000
56	Laura St*	Scots Glen Drive to Harlow Rd	0.000	0.273	0.273	TransPlan	Urban Standards - Three-lane facility	\$550,000
138	Lost Creek Rd	Hwy 58 to Parvin Rd	0.000	0.669	0.669	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$420,000
89	Marcola Rd*	Parsons Cr Rd to Wendling Rd	10.430	11.700	1.270	LC TSP	Rural Modernization - Widen and overlay. Includes curb and sidewalk in Marcola.	\$1,900,000
88	Marcola Rd*	Wendling Rd to Johnson Rd	11.700	16.080	4.380	LC TSP	Rural Modernization - Widen and overlay	\$3,000,000
83	McKenzie View Drive	Coburg Rd to Hill Rd	0.000	6.099	6.099	LC TSP	Rural Modernization	\$3,800,000
104	Meadowview Rd West	Hwy 99W to Alvadore Rd	0.000	2.952	2.952	LC TSP	Rural Modernization	\$1,850,000
128	Mill Rd*	Hwy 58 to Wheeler Rd	0.000	0.249	0.249	LC TSP	Realignment at Hwy 58	\$400,000
105	Milliron Rd East*	Hwy 99W to Prairie Rd	0.000	0.402	0.402	LC TSP	Rural Modernization - Widen and overlay. Modernize two railroad crossings. Access to new corrections facility.	\$950,000

\*\* Project completed or under contract

		Projects on Lane Cou	Inty Roads	- 20-Year P	roject List	Sorted in Al	Projects on Lane County Roads – 20-Year Project List Sorted in Alphabetical Order									
Project			Begin	End				Estimated								
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost								
94	Mosby Cr Rd	Currin Connector to Row River Connector #1	1.204	1.632	0.428	LC TSP	Rural Modernization	\$250,000								
2	Munsel Lake Rd***	Hwy 101 to North Fork Siuslaw Rd	0.000	2.090	2.090	Florence	Bike-Ped Facilities. Listed as project #I-3	\$150,000								
36	N. Park Avenue	Maxwell Rd to Horn Lane	0.268	1.298	1.030	TransPlan	Bike-Ped, Striped Lane/Route #539	\$200,000								
123	North Fork Siuslaw Rd	Hwy 126 to Munsel Lake Rd	0.000	0.849	0.849	LC TSP	Rural Modernization	\$550,000								
68	North River Rd	Hwy 99 to Bennett Creek Rd	0.000	0.433	0.433	Cottage Grove	Urban Standards	\$430,000								
109	Oaklea Drive	Hwy 99W to 18th Ave West	0.000	1.512	1.512	LC TSP	Rural Modernization	\$950,000								
21	Oaklea Drive Modernization	18th Ave West to High Pass Rd	1.512	2.534	1.022	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #7	\$1,400,000								
8	Parsons Creek Rd.	Marcola Rd. to Pioch Ln.	0.000	0.899	0.899	LC TSP	Bike-Ped Facilities – Widen shoulders	\$560,000								
29	Pearl Street**	Coburg Rd to Miller St	0.025	0.244	0.219	Coburg	Urban Standards - Two-lane facility with curb, gutter, sidewalks, bike lanes,#B1	\$700,000								
28	Pearl Street**	Miller St to I-5	0.244	0.640	0.396	Coburg	Urban Standards - Four-lane facility with median treatments, curb, gutter, sidewalks, bike lanes, #B1	\$750,000								
14	Perkins Rd	City Limits to Central Rd	0.420	2.822	2.402	LC TSP	Bike-Ped Facilities See Veneta TSP #D6	\$1,500,000								
17	Pitney Lane North	UGB to High Pass Road	1.370	1.509	0.139	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, and bike lanes, #11	\$200,000								
107	Prairie Rd	NW Expressway to Hwy 99 (Prairie Rd Connector)	2.221	7.850	5.629	LC TSP	Rural Modernization	\$3,500,000								
81	Prairie Rd***	Maxwell Rd to Beltline	0.118	0.690	0.572	LC TSP	Complete urban Standards	\$350,000								
19	Prairie Road Modernization	Highway 99 to High Pass Road	8.030	9.250	1.220	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #8	\$1,700,000								
26	Prairie Road Widening (Future)	UGB to End (near Hwy 99)	7.300	8.030	0.730	Junction City	Rural Modernization. Widen shoulders. Discussion of prison siting, #9	\$1,000,000								

\*\* Project completed or under contract

		Projects on Lane Cou	Projects on Lane County Roads – 20-Year Project List Sorted in Alphabetical Order										
Project	T		Begin	End		1		Estimated					
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost					
31	Prairie Road**	Carol Lane to Irvington Drive	1.589	1.939	0.350	TransPlan	Urban Standards, 3 lane-lane facility, #472	\$825,000					
1	Rhododendron Drive***	City Limits to Heceta Beach Rd	3.440	5.112	1.672	Florence	Urban Standards-Curbs, Sidewalks, bike lanes. Part of project G-4 and bike project I-2	\$1,800,000					
127	Ridgeway Rd	Hwy 58 to MP 1.0	0.000	1.000	1.000	LC TSP	Bike-Ped Facilities	\$620,000					
102	River Loop #1***	River Rd to Dalewood Street	0.000	0.244	0.244	LC TSP	Urban Standards	\$500,000					
100	River Loop #2***	River Rd to Burlwood Street	0.000	0.990	0.990	LC TSP	Urban Standards	\$2,000,000					
57	River Rd*	Beacon Dr to Carthage	7.366	7.747	0.381	TransPlan	Urban Standards - Three-lane facility, #545	\$1,100,000					
27	River Road Modernization*	Hwy 99 to vicinity of Strome Ln	0.000	0.694	0.694	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #10	\$970,000					
92	Row River Rd	Sharps Cr Rd to Brice Cr Rd	16.230	19.778	3.548	LC TSP	Rural Modernization	\$2,200,000					
67	Row River Rd	UGB to Row River	1.042	2.088	1.046	Cottage Grove	Urban Standards - Three-lane facility with bike lanes	\$900,000					
53	Royal Avenue*	Terry Street to Greenhill Avenue	2.267	3.267	1.000	TransPlan	Urban Standards - Three-lane facility, joint with Eugene, #481	\$2,200,000					
96	Scenic Drive ***	River Loop #2 to Beacon Drive East	0.000	0.765	0.765	LC TSP	Urban Standards	\$1,600,000					
93	Sears Rd	MP 0.62 to Saginaw Rd East	0.620	3.240	2.620	LC TSP	Strengthen pavement structure	\$1,100,000					
87	Seavey Loop ***	Hwy 58 to Franklin Boulevard East	0.000	3.791	3.791	LC TSP	Bike-Ped Facilities	\$2,400,000					
133	South Jetty Rd	Hwy 101 to BLM Rd	0.000	0.620	0.620	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$390,000					
66	South River Rd**	Hwy 99 to Jason Lee (City Limit)	0.000	0.316	0.316	Cottage Grove	Urban Standards & realign at Hwy 99	\$660,000					
117	Spencer Cr Rd	MP 0.5 to Pine Grove Rd	0.500	3.285	2.785	LC TSP	Rural Modernization	\$1,700,000					
99	Spring Creek Drive	River Rd to Scenic Drive	0.000	0.527	0.527	LC TSP	Urban Standards	\$1,100,000					
122	Stagecoach Rd*	Richardson Rd to MP .58	0.000	0.580	0.580	LC TSP	Slope stabilization	\$770,000					
134	Suttle Rd	Hwy 126 to Territorial Hwy	0.000	3.802	3.802	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$2,380,000					
1					1								

\*\* Project completed or under contract

		Projects on Lane Cou	unty Roads -	- 20-Year Pr	roject List	Sorted in Al	phabetical Order	
Project			Begin	End				Estimated
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost
65	Sweet Lane	Hwy 99 to Talemena Dr	0.000	0.718	0.718	Cottage Grove	Urban Standards	\$570,000
64	Thornton Lane***	Row River Rd to ECM (Gate)	0.000	0.518	0.518	Cottage Grove	Urban Standards - Add curb, gutter, sidewalks	\$220,000
6	Tillicum Ave.	Hwy. 58 to Tenas Ln.	0.000	0.263	0.263	LC TSP	Bike-Ped Facilities – Sidewalks and/or widen shoulders	\$200,000
4	Vaughn Rd.	Noti Loop Rd. to Glaze Rd.	0.000	0.953	0.953	LC TSP	Bike-Ped Facilities – Widen shoulders	\$600,000
5	Vaughn Rd.	Canaday Rd. to Territorial Hwy.	7.954	9.906	1.952	LC TSP	Bike-Ped Facilities – Widen shoulders	\$1,220,000
41	W 11th Avenue	Greenhill Road to Danebo			1.510	TransPlan	Urban Standards, 5 lane facility, joint with Eugene, ODOT, #333	\$4,500,000
61	W. Hilliard Ln.	River Road to North Park	0.000	0.840	1.090	TransPlan	Bike-Ped, Striped Lane or Route, #518	\$0
114	Warthen Rd	Territorial Hwy to Knight Rd	0.000	4.008	4.008	LC TSP	Rural Modernization - Widen shoulders for bike use	\$2,500,000
135	Wendling Rd	Marcola Rd to Paschelke Rd	0.000	1.599	1.599	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$1,000,000
131	West Boundary Rd*	End of Pavement to MP 6.4	1.700	6.400	4.700	LC TSP	Pave gravel road	\$2,750,000
74	Westfir-Oakridge Rd	Norquist Lane to High Prairie Rd	5.707	6.065	0.358	Oakridge	Bike-Ped Facilities. Joint with Oakridge, #D3.	\$750,000
44	Wilkes Drive	River Road to River Loop #1	0.000	0.932	0.932	TransPlan	Urban Standards, 3-lane facility, #554	\$1,400,000

<sup>\*\*</sup> Project completed or under contract

<sup>\*\*\*</sup> Project added, description modified, or for other reasons may require action on City TSP.

	Projects on Lane County Roads – 20-Year Project List Sorted by Project Number									
Project			Begin	End				Estimated		
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost		
	1						1			
	1	L1			.L		1			
1	Rhododendron Drive***	City Limits to Heceta Beach Rd	3.440	5.112	1.672	Florence	Urban Standards-Curbs, Sidewalks, bike lanes. Part of project G-4 and bike project I-2	\$1,800,000		
2	Munsel Lake Rd***	Hwy 101 to North Fork Siuslaw Rd	0.000	2.090	2.090	Florence	Bike-Ped Facilities. Listed as project #I-3	\$150,000		
3	Heceta Beach Rd***	Hwy 101 to Rhododendron Drive	0.000	1.885	1.885	Florence	Bike-Ped Facilities. Listed as project #I-1	\$150,000		
4	Vaughn Rd.	Noti Loop Rd. to Glaze Rd.	0.000	0.953	0.953	LC TSP	Bike-Ped Facilities – Widen shoulders	\$600,000		
5	Vaughn Rd.	Canaday Rd. to Territorial Hwy.	7.954	9.906	1.952	LC TSP	Bike-Ped Facilities – Widen shoulders	\$1,220,000		
6	Tillicum Ave.	Hwy. 58 to Tenas Ln.	0.000	0.263	0.263	LC TSP	Bike-Ped Facilities – Sidewalks and/or widen shoulders	\$200,000		
7	Delight Valley School Rd. North	E. Saginaw Rd. to Bachmann Ln.	0.000	0.282	0.282	LC TSP	Bike-Ped Facilities – Widen shoulders	\$175,000		
8	Parsons Creek Rd.	Marcola Rd. to Pioch Ln.	0.000	0.899	0.899	LC TSP	Bike-Ped Facilities – Widen shoulders	\$560,000		
10	Green Hill Rd*	Barger Drive to W 11th	1.540	3.820	2.280	TransPlan	Urban Standards, Upgrade to 2-3 lane facility, joint with Eugene, #454	\$5,000,000		
11	Bolton Hill Rd	At Territorial Hwy	0.000	0.000	0.000	Veneta	Traffic Signal. Possible joint project with Veneta, ODOT. #B15	\$200,000		
12	Huston Road South	Hunter Rd to Perkins Rd	0.272	1.070	0.798	LC TSP	Bike-Ped Facilities. See Veneta TSP #D6	\$500,000		
13	Bolton Road East	Territorial Hwy to Huston Rd South	0.000	1.300	1.300	Veneta	Bike-Ped Facilities, #D6	\$320,000		
14	Perkins Rd	City Limits to Central Rd	0.420	2.822	2.402	LC TSP	Bike-Ped Facilities See Veneta TSP #D6	\$1,500,000		
15	Bolton Hill Rd	Territorial Hwy to UGB	0.000	1.171	1.171	Veneta	Urban Standards. #B5	\$1,900,000		
16	Jeans Rd	Huston Rd North to Fawver Dr	1.185	3.000	1.815	LC TSP	Bike-Ped Facilities See Veneta TSP #D6	\$1,100,000		
17	Pitney Lane North	UGB to High Pass Road	1.370	1.509	0.139	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, and bike lanes, #11	\$200,000		
18	18th Avenue East & Deal St Modernization	Highway 99E to Dane Lane	0.000	0.509	0.509	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections., #4	\$700,000		

\*\* Project completed or under contract

	Projects on Lane County Roads – 20-Year Project List Sorted by Project Number									
Project			Begin	End				Estimated		
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost		
19	Prairie Road Modernization	Highway 99 to High Pass Road	8.030	9.250	1.220	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #8	\$1,700,000		
20	18th Avenue West Modernization	Hwy 99W to Oaklea Drive	0.000	0.854	0.854	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections such as Oaklea Dr and Rose Street., #3	\$1,200,000		
21	Oaklea Drive Modernization	18th Ave West to High Pass Rd	1.512	2.534	1.022	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #7	\$1,400,000		
22	10th Avenue West	Rose Street South to Oaklea Dr	0.000	0.346	0.346	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #2	\$50,000		
23	6th Avenue West	City Limits to Oaklea Drive	0.000	0.330	0.330	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #1	\$50,000		
24	High Pass Road Modernization	Hwy 99 to Oaklea Drive	0.000	0.859	0.859	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$1,200,000		
25	High Pass Road Modernization (Future)	Oaklea Drive to UGB	0.859	1.520	0.661	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$900,000		
26	Prairie Road Widening (Future)	UGB to End (near Hwy 99)	7.300	8.030	0.730	Junction City	Rural Modernization. Widen shoulders. Discussion of prison siting, #9	\$1,000,000		
27	River Road Modernization*	Hwy 99 to vicinity of Strome Ln	0.000	0.694	0.694	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #10	\$970,000		
28	Coburg Industrial Way**	Pearl Street Intersection				Coburg	Traffic Signal Installation and widening of approach to intersection, #B2	\$0 (est. cost included in #28 above)		
28	Pearl Street**	Miller St to I-5	0.244	0.640	0.396	Coburg	Urban Standards - Four-lane facility with median treatments, curb, gutter, sidewalks, bike lanes, #B1	\$750,00Ó		

\*\* Project completed or under contract

Projects on Lane County Roads – 20-Year Project List Sorted by Project Number									
Project			Begin	End				Estimated	
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost	
29	Pearl Street**	Coburg Rd to Miller St	0.025	0.244	0.219	Coburg	Urban Standards - Two-lane facility with curb, gutter, sidewalks, bike lanes,#B1	\$700,000	
30	Hayden Bridge Rd (includes 23rd)	Yolanda to Marcola Rd			1.540	TransPlan	Urban Standards, 2 lane facility, #747	\$2,300,000	
31	Prairie Road**	Carol Lane to Irvington Drive	1.589	1.939	0.350	TransPlan	Urban Standards, 3 lane-lane facility, #472	\$825,000	
32	Division Avenue	Delta Highway to Beaver Street			0.890	TransPlan (Future List)	New frontage road with Willamette River Bridge #512	\$4,000,000	
33	Lake Drive/N. Park Ave	Howard to Horn Lane***	0.000	0.430	0.430	TransPlan	Bike-Ped, Striped Lane or Route, #536	\$170,000	
34	Fox Hollow Rd	Donald Street to UGB	8.829	9.329	0.500	TransPlan	Urban Standards, 2 lane facility, #245	\$850,000	
35	31st Street	Hayden Bridge to U Street	0.542	0.905	0.850	TransPlan	Urban Standards, 2-3 lane facility, #765	\$1,300,000	
36	N. Park Avenue	Maxwell Rd to Horn Lane	0.268	1.298	1.030	TransPlan	Bike-Ped, Striped Lane/Route #539	\$200,000	
38	Horn Lane	N. Park Ave to River Road	0.000	0.928	0.928***	TransPlan	Bike-Ped, Striped Lane or Route, #521	\$150,000	
39	Green Hill Rd**	North Boundary of Airport to Airport Rd			2.060	TransPlan	Closing of existing road and realignment on east boundary of airport property, #486	\$3,000,000	
40	18th Avenue**	Bertelson Rd to Willow Creek Rd			0.710	TransPlan	Urban Standards, 2 lane facility, #303	\$1,100,000	
41	W 11th Avenue	Greenhill Road to Danebo			1.510	TransPlan	Urban Standards, 5 lane facility, joint with Eugene, ODOT, #333	\$4,500,000	
42	County Farm Loop	West to East Section	0.550	1.080	0.530	TransPlan	Urban Standards, 2 lane facility, joint with Eugene, #632	\$800,000	
43	Coburg Rd**	Kinney Loop to Armitage Park	3.229	4.419	1.190	TransPlan	Urban Standards. Reconstruct to three-lane facility to UGB, turn lane at park entrance, rural, #625	\$2,400,000	
44	Wilkes Drive	River Road to River Loop #1	0.000	0.932	0.932	TransPlan	Urban Standards, 3-lane facility, #554	\$1,400,000	
45	County Farm Loop	North to South Section	0.000	0.550	0.550	TransPlan	Urban Standards, 3-lane facility, joint with Eugene, #631	\$825,000	
46	Beaver Street Arterial	Hunsaker Drive to Wilkes Drive			0,840	TransPlan (Future List)	R.O.W. acquisition, general construction, new arterial #503	\$1,700,000	

\*\* Project completed or under contract

Projects on Lane County Roads – 20-Year Project List Sorted by Project Number										
Project			Begin	End				Estimated		
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost		
47	Aspen St*	Centennial to West D	0.000	0.441	0.441	TransPlan	Urban Standards, 2 to 3 lane facility, joint project Spfd, #809	\$750,000		
48	Hunsaker Lane/Beaver Street*	River Rd to Division Ave	0.000	1.141	1.141	TransPlan	Urban Standards-2 lane facility,#527	\$2,200,000		
49	Grove Street	Silver Lane to Howard	0.000	0.528	0.160	TransPlan	Bike-Ped, Striped Lane/Route #515	\$0		
50	Game Farm Rd South	Game Farm Rd East to Harlow Rd			0.930	TransPlan	Urban Standards, 2 lane facility,#737	\$2,100,000		
51	Bloomberg Connector (McVay Hwy Realignment)*	McVay Highway to 30th Ave			0.400	TransPlan	Modification of connection of McVay Hwy to 30th Ave, #297	\$800,000		
52	Irvington Drive*	River Road to Prairie Rd	0.000	1.479	1.479	TransPlan	Urban Standards,2-3 lane facility, #533	\$4,000,000		
53	Royal Avenue*	Terry Street to Greenhill Avenue	2.267	3.267	1.000	TransPlan	Urban Standards - Three-lane facility, joint with Eugene, #481	\$2,200,000		
54	Green Hill Rd*	Barger Drive to Airport Rd	3.820	5.820	2.000	TransPlan	Rural widening and intersection modifications,#485	\$2,000,000		
55	Jasper Road Extension*	Main Street to Jasper Rd			3.200	TransPlan	Construct 4 lane arterial: phasing to be determined: improve RR X-ing at Jasper Rd; at grade interim improvement; grade separation long range improvement,#66	\$10,400,000		
56	Laura St*	Scots Glen Drive to Harlow Rd	0.000	0.273	0.273	TransPlan	Urban Standards - Three-lane facility	\$550,000		
57	River Rd*	Beacon Dr to Carthage	7.366	7.747	0.381	TransPlan	Urban Standards - Three-lane facility, #545	\$1,100,000		
58	Delta/Beltline Interchange*					TransPlan	Interim/safety improvements; replace/revise existing ramps; widen Delta Hwy bridge to 5 lanes, #638	\$8,000,000		
59	Game Farm Rd North*	I-5 to Coburg Rd	0.419	1.690	1.271	TransPlan	Urban Standards, Upgrade to 2-3 lane facility, Joint with Eugene,#654	\$2,200,000		
60	Irving Rd at NW Expressway*	Gainsborough Entrance to Prairie Rd			0.300	TransPlan	Construct overpass over NW Expressway and railroad. Signalize access on north side,#530	\$4,200,000		
61	W. Hilliard Ln.	River Road to North Park	0.000	0.840	1.090	TransPlan	Bike-Ped, Striped Lane or Route, #518	\$0		
62	Harvey Road	At Hwy 99	0.000	0.100	0.100	Creswell	Intersection improvements at Hwy 99, High Priority #9	\$200,000		
63	Dale Kuni Road	Hwy 99 to UGB	0.000	1.430	1.430	LC TSP	Bike-Ped Facilities	\$900,000		

\*\* Project completed or under contract

Projects on Lane County Roads – 20-Year Project List Sorted by Project Number										
Project		·	Begin	End				Estimated		
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost		
64	Thornton Lane***	Row River Rd to ECM (Gate)	0.000	0.518	0.518	Cottage Grove	Urban Standards - Add curb, gutter, sidewalks	\$220,000		
65	Sweet Lane	Hwy 99 to Talemena Dr	0.000	0.718	0.718	Cottage Grove	Urban Standards	\$570,000		
66	South River Rd**	Hwy 99 to Jason Lee (City Limit)	0.000	0.316	0.316	Cottage Grove	Urban Standards & realign at Hwy 99	\$660,000		
67	Row River Rd	UGB to Row River	1.042	2.088	1.046	Cottage Grove	Urban Standards - Three-lane facility with bike lanes	\$900,000		
68	North River Rd	Hwy 99 to Bennett Creek Rd	0.000	0.433	0.433	Cottage Grove	Urban Standards	\$430,000		
69	Latham Rd	Hwy 99 to London Rd	0.000	0.965	0.965	Cottage Grove	Bike-Ped Facilities	\$100,000		
70	Cottage Grove- Lorane Hwy	City Limit to Gowdyville Rd	0.830	1.174	0.344	Cottage Grove	Bike-Ped Facilities	\$90,000		
71	Bennett Creek Rd	North River Rd to UGB (bridge)	0.000	1.008	1.008	Cottage Grove	Urban Standards - Widen, upgrade guardrail	\$270,000		
72	Fish Hatchery Rd	At Hwy 58	0.000	0.040	0.040	Oakridge	Realignment of Fish Hatchery Rd at Hwy 58 approach. Joint with Oakridge, ODOT, #D7	\$100,000		
73	High Prairie Rd	1st Street to UGB	0.000	0.947	0.947	Oakridge	Bike-Ped Facilities. Intersection improvements and shoulders. Joint with Oakridge, Part of #D3 and #D6	\$600,000		
74	Westfir-Oakridge Rd	Norquist Lane to High Prairie Rd	5.707	6.065	0.358	Oakridge	Bike-Ped Facilities. Joint with Oakridge, #D3.	\$750,000		
75	Fish Hatchery Rd	Hwy 58 to 1st Street	0.000	1.650	1.650	Oakridge	Bike-Ped Facilities. Joint with Oakridge, #D2.	\$1,000,000		
76	Cedar Flat Rd*	Hwy 126 to East Cedar Flat Rd	0.000	0.500	0.500	LC TSP	Realignment and widening for paved shoulders	\$450,000		
77	Bridge Street	McKenzie River & Overflow Structure	0.006	0.190	0.184	LC TSP	Bridge Improvements	\$120,000		
78	Blue River Drive	Hwy 126 to Hwy 126	0.000	1.555	1.555	LC TSP	Rural Modernization	\$1,000,000		
79	Crest Drive ***	Lorane Hwy to Blanton Rd	0.000	0.873	0.873	LC TSP	Urban Standards/Rural Modernization	\$1,800,000		
80	Howard Ave	River Road to North Park	0.000	0.956	0.960	TransPlan	Bike-Ped, Striped Lane or Route, #524	\$0		
81	Prairie Rd***	Maxwell Rd to Beltline	0.118	0.690	0.572	LC TSP	Complete urban Standards	\$350,000		
82	Coburg Rd	Coburg Rd North to Linn County Line	7.416	12.883	5.467	LC TSP	Rural Modernization	\$3,400,000		
83	McKenzie View Dr.	Coburg Rd to Hill Rd	0.000	6.099	6.099	LC TSP	Rural Modernization	\$3,800,000		

\*\* Project completed or under contract

	Projects on Lane County Roads – 20-Year Project List Sorted by Project Number										
Project			Begin	End	-			Estimated			
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost			
84	Coburg Rd North	Coburg Rd to Linn County Line	0.000	4.115	4.115	LC TSP	Rural Modernization	\$2,600,000			
85	Franklin Boulevard East***	I-5 Frontage to Twin Buttes Rd	0.000	1.121	1.121	LC TSP	Rural Modernization	\$2,300,000			
86	Dillard Rd*	Hwy 99 to ECM	0.000	4.016	4.016	LC TSP	Rural Modernization	\$2,600,000			
87	Seavey Loop ***	Hwy 58 to Franklin Boulevard East	0.000	3.791	3.791	LC TSP	Bike-Ped Facilities	\$2,400,000			
88	Marcola Rd*	Wendling Rd to Johnson Rd	11.700	16.080	4.380	LC TSP	Rural Modernization - Widen and overlay	\$3,000,000			
89	Marcola Rd*	Parsons Cr Rd to Wendling Rd	10.430	11.700	1.270	LC TSP	Rural Modernization - Widen and overlay. Includes curb and sidewalk in Marcola.	\$1,900,000			
90	Hill Rd	Old Mohawk Rd to Marcola Rd	0.000	4.572	4.572	LC TSP	Rural Modernization	\$2,900,000			
91	Camas Swale Rd	Butte Rd to Weiss Rd	0.550	7.010	6.460	LC TSP	Rural Modernization	\$4,000,000			
92	Row River Rd	Sharps Cr Rd to Brice Cr Rd	16.230	19.778	3.548	LC TSP	Rural Modernization	\$2,200,000			
93	Sears Rd	MP 0.62 to Saginaw Rd East	0.620	3.240	2.620	LC TSP	Strengthen pavement structure	\$1,100,000			
94	Mosby Cr Rd	Currin Connector to Row River Connector #1	1.204	1.632	0.428	LC TSP	Rural Modernization	\$250,000			
95	Gowdyville Rd*	MP 1.89 to Territorial Hwy	1.890	9.034	7.144	LC TSP	Reconstruct and pave gravel road	\$3,100,000			
96	Scenic Drive ***	River Loop #2 to Beacon Drive East	0.000	0.765	0.765	LC TSP	Urban Standards	\$1,600,000			
97	Beacon Drive East	River Rd to Scenic Drive	0.000	0.749	0.749	LC TSP	Urban Standards	\$1,500,000			
98	Beacon Drive West	River Rd to Prairie Rd	0.154	1.172	1.018	LC TSP	Rural Modernization	\$650,000			
99	Spring Creek Drive	River Rd to Scenic Drive	0.000	0.527	0.527	LC TSP	Urban Standards	\$1,100,000			
100	River Loop #2***	River Rd to Burlwood Street	0.000	0.990	0.990	LC TSP	Urban Standards	\$2,000,000			
101	Arrowhead Street***	Irvington Drive to Barstow Ave	0.000	0.230	0.230	LC TSP	Urban Standards	\$500,000			
102	River Loop #1***	River Rd to Dalewood Street	0.000	0.244	0.244	LC TSP	Urban Standards	\$500,000			
103	Awbrey Lane	Prairie Rd to Hwy 99W	0.000	1.340	1.340	LC TSP	Rural Modernization	\$850,000			
104	Meadowview Rd West	Hwy 99W to Alvadore Rd	0.000	2.952	2.952	LC TSP	Rural Modernization	\$1,850,000			
			1								

\*\* Project completed or under contract

Projects on Lane County Roads – 20-Year Project List Sorted by Project Number									
Project			Begin	End				Estimated	
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost	
105	Milliron Rd East*	Hwy 99W to Prairie Rd	0.000	0.402	0.402	LC TSP	Rural Modernization - Widen and overlay. Modernize two railroad crossings. Access to new corrections facility.	\$950,000	
106	Hulbert Lake Rd*	Ferguson Rd to Benton County Line	0.000	2.390	2.390	LC TSP	Reconstruction and drainage improvements	\$1,500,000	
107	Prairie Rd	NW Expressway to Hwy 99 (Prairie Rd Connector)	2.221	7.850	5.629	LC TSP	Rural Modernization	\$3,500,000	
109	Oaklea Drive	Hwy 99W to 18th Ave West	0.000	1.512	1.512	LC TSP	Rural Modernization	\$950,000	
110	Dorsey Lane	Hwy 36 to High Pass Rd	0.000	1.542	1.542	LC TSP	Rural Modernization	\$950,000	
111	Alvadore Rd	Hwy 36 to Snyder Rd	0.000	6.100	6.100	LC TSP	Rural Modernization	\$3,800,000	
112	Applegate Trail	Hwy 36 to Territorial Hwy	0.000	2.584	2.584	LC TSP	Rural Modernization - Widen shoulders for bike use	\$1,600,000	
113	Hall Rd*	MP 4.56 to MP 5.88	4.560	5.880	1.320	LC TSP	Pave gravel portion	\$990,000	
114	Warthen Rd	Territorial Hwy to Knight Rd	0.000	4.008	4.008	LC TSP	Rural Modernization - Widen shoulders for bike use	\$2,500,000	
115	Fleck Rd	Territorial Hwy to Central Rd	0.000	2.512	2.512	LC TSP	Rural Modernization	\$1,600,000	
116	Briggs Hill Rd*	MP 2.5 to Spencer Cr Rd	2.500	4.010	1.510	LC TSP	Rural Modernization	\$1,250,000	
117	Spencer Cr Rd	MP 0.5 to Pine Grove Rd	0.500	3.285	2.785	LC TSP	Rural Modernization	\$1,700,000	
118	Fir Butte Rd	Royal Ave to Clear Lake Rd	0.000	2.706	2.706	LC TSP	Rural Modernization	\$1,700,000	
119	Fisher Rd	Hwy 126 to Royal Avenue	0.000	1.200	1.200	LC TSP	Rural Modernization	\$750,000	
120	Central Rd	Hwy 126 to Fleck Rd	0.000	1.920	1.920	LC TSP	Rural Modernization	\$1,200,000	
121	Ellmaker Rd	Hwy 126 to Jeans Rd	0.000	1.114	1.114	LC TSP	Rural Modernization	\$700,000	
122	Stagecoach Rd*	Richardson Rd to MP 0.58	0.000	0.580	0.580	LC TSP	Slope stabilization	\$770,000	
123	North Fork Siuslaw Rd	Hwy 126 to Munsel Lake Rd	0.000	0.849	0.849	LC TSP	Rural Modernization	\$550,000	
124	Canary Rd	Hwy 101 to Woahink Lake	0.000	0.686	0.686	LC TSP	Rural Modernization	\$450,000	
125	Clear Lake Rd*	Jensen Lane to Canary Rd	1.670	4.233	2.563	LC TSP	Rural Modernization - Addition of paved shoulders	\$1,700,000	
126	Cloverdale Rd	Hwy 58 to Hendricks Rd (State Highway begins)	0.000	3.276	3.276	LC TSP	Rural Modernization	\$2,000,000	
127	Ridgeway Rd	Hwy 58 to MP 1.0	0.000	1.000	1.000	LC TSP	Bike-Ped Facilities	\$620,000	
128	Mill Rd*	Hwy 58 to Wheeler Rd	0.000	0.249	0.249	LC TSP	Realignment at Hwy 58	\$400,000	

\*\* Project completed or under contract

	Projects on Lane County Roads – 20-Year Project List Sorted by Project Number										
Project			Begin	End				Estimated			
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost			
129	Dexter Rd	Hwy 58 to Barbre Rd	0.000	1.500	1.500	LC TSP	Bike-Ped Facilities	\$950,000			
130	Jasper-Lowell Rd	Pengra Rd to MP 5.0	3.874	5.000	1.126	LC TSP	Rural Modernization	\$700,000			
131	West Boundary Rd*	End of Pavement to MP 6.4	1.700	6.400	4.700	LC TSP	Pave gravel road	\$2,750,000			
132	Jasper-Lowell Rd	Parkway Rd to Pengra Rd	0.000	3.874	3.874	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$2,420,000			
133	South Jetty Rd	Hwy 101 to BLM Rd	0.000	0.620	0.620	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$390,000			
134	Suttle Rd	Hwy 126 to Territorial Hwy	0.000	3.802	3.802	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$2,380,000			
135	Wendling Rd	Marcola Rd to Paschelke Rd	0.000	1.599	1.599	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$1,000,000			
136	Cottage Grove- Lorane Rd	Hawley Cr Rd to Old Lorane Rd	10.879	12.654	1.775	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$1,110,000			
137	Hills Cr Rd	Jasper-Lowell Rd to Alden Lane	0.000	0.778	0.778	LC TSP	Bike-Ped Facilities - Widen to standard for bike use	\$490,000			
138	Lost Creek Rd	Hwy 58 to Parvin Rd	0.000	0.669	0.669	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$420,000			

<sup>\*\*</sup> Project completed or under contract

<sup>\*\*\*</sup> Project added, description modified, or for other reasons may require action on City TSP.

	Lane County Transportation System Plan 20-Year Project List											
	1	Pro	jects on Lan	e County R	loads - Soi	ted by ISP	1	1				
Project			Begin	End				Estimated				
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost				
County Projects Identified in Lane County TSP												
111	Alvadore Rd	Hwy 36 to Snyder Rd	0.000	6.100	6.100	LC TSP	Rural Modernization	\$3,800,000				
112	Applegate Trail	Hwy 36 to Territorial Hwy	0.000	2.584	2.584	LC TSP	Rural Modernization - Widen shoulders for bike use	\$1,600,000				
101	Arrowhead Street***	Irvington Drive to Barstow Ave	0.000	0.230	0.230	LC TSP	Urban Standards	\$500,000				
103	Awbrey Lane	Prairie Rd to Hwy 99W	0.000	1.340	1.340	LC TSP	Rural Modernization	\$850,000				
97	Beacon Drive East	River Rd to Scenic Drive	0.000	0.749	0.749	LC TSP	Urban Standards	\$1,500,000				
98	Beacon Drive West	River Rd to Prairie Rd	0.154	1.172	1.018	LC TSP	Rural Modernization	\$650,000				
78	Blue River Drive	Hwy 126 to Hwy 126	0.000	1.555	1.555	LC TSP	Rural Modernization	\$1,000,000				
77	Bridge Street	McKenzie River & Overflow Structure	0.006	0.190	0.184	LC TSP	Bridge Improvements	\$120,000				
116	Briggs Hill Rd*	MP 2.5 to Spencer Cr Rd	2.500	4.010	1.510	LC TSP	Rural Modernization	\$1,250,000				
91	Camas Swale Rd	Butte Rd to Weiss Rd	0.550	7.010	6.460	LC TSP	Rural Modernization	\$4,000,000				
124	Canary Rd	Hwy 101 to Woahink Lake	0.000	0.686	0.686	LC TSP	Rural Modernization	\$450,000				
76	Cedar Flat Rd*	Hwy 126 to East Cedar Flat Rd	0.000	0.500	0.500	LC TSP	Realignment and widening for paved shoulders	\$450,000				
120	Central Rd	Hwy 126 to Fleck Rd	0.000	1.920	1.920	LC TSP	Rural Modernization	\$1,200,000				
125	Clear Lake Rd*	Jensen Lane to Canary Rd	1.670	4.233	2.563	LC TSP	Rural Modernization - Addition of paved shoulders	\$1,700,000				
126	Cloverdale Rd	Hwy 58 to Hendricks Rd (State Highway begins)	0.000	3.276	3.276	LC TSP	Rural Modernization	\$2,000,000				
82	Coburg Rd	Coburg Rd North to Linn County Line	7.416	12.883	5.467	LC TSP	Rural Modernization	\$3,400,000				
84	Coburg Rd North	Coburg Rd to Linn County Line	0.000	4.115	4.115	LC TSP	Rural Modernization	\$2,600,000				
136	Cottage Grove- Lorane Rd	Hawley Cr Rd to Old Lorane Rd	10.879	12.654	1.775	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$1,110,000				
79	Crest Drive ***	Lorane Hwy to Blanton Rd	0.000	0.873	0.873	LC TSP	Urban Standards/Rural Modernization	\$1,800,000				
63	Dale Kuni Road	Hwy 99 to UGB	0.000	1.430	1.430	LC TSP	Bike-Ped Facilities	\$900,000				
7	Delight Valley School Rd. North	E. Saginaw Rd. to Bachmann Ln.	0.000	0.282	0.282	LC TSP	Bike-Ped Facilities – Widen shoulders	\$175,000				
129	Dexter Rd	Hwy 58 to Barbre Rd	0.000	1.500	1.500	LC TSP	Bike-Ped Facilities	\$950,000				
86	Dillard Rd*	Hwy 99 to ECM	0.000	4.016	4.016	LC TSP	Rural Modernization	\$2,600,000				

\*\* Project completed or under contract

Lane County Transportation System Plan 20-Year Project List										
	+	Pro	jects on Lan	ne County R	oads - Sor	ted by TSP	1			
Project			Begin	End		-		Estimated		
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost		
110	Dorsey Lane	Hwy 36 to High Pass Rd	0.000	1.542	1.542	LC TSP	Rural Modernization	\$950,000		
121	Ellmaker Rd	Hwy 126 to Jeans Rd	0.000	1.114	1.114	LC TSP	Rural Modernization	\$700,000		
118	Fir Butte Rd	Royal Ave to Clear Lake Rd	0.000	2.706	2.706	LC TSP	Rural Modernization	\$1,700,000		
119	Fisher Rd	Hwy 126 to Royal Avenue	0.000	1.200	1.200	LC TSP	Rural Modernization	\$750,000		
115	Fleck Rd	Territorial Hwy to Central Rd	0.000	2.512	2.512	LC TSP	Rural Modernization	\$1,600,000		
85	Franklin Boulevard East***	I-5 Frontage to Twin Buttes Rd	0.000	1.121	1.121	LC TSP	Rural Modernization	\$2,300,000		
95	Gowdyville Rd*	MP 1.89 to Territorial Hwy	1.890	9.034	7.144	LC TSP	Reconstruct and pave gravel road	\$3,100,000		
113	Hall Rd*	MP 4.56 to MP 5.88	4.560	5.880	1.320	LC TSP	Pave gravel portion	\$990,000		
90	Hill Rd	Old Mohawk Rd to Marcola Rd	0.000	4.572	4.572	LC TSP	Rural Modernization	\$2,900,000		
137	Hills Cr Rd	Jasper-Lowell Rd to Alden Lane	0.000	0.778	0.778	LC TSP	Bike-Ped Facilities - Widen to standard for bike use	\$490,000		
106	Hulbert Lake Rd*	Ferguson Rd to Benton County Line	0.000	2.390	2.390	LC TSP	Reconstruction and drainage improvements	\$1,500,000		
12	Huston Road South	Hunter Rd to Perkins Rd	0.272	1.070	0.798	LC TSP	Bike-Ped Facilities. See Veneta TSP #D6	\$500,000		
130	Jasper-Lowell Rd	Pengra Rd to MP 5.0	3.874	5.000	1.126	LC TSP	Rural Modernization	\$700,000		
132	Jasper-Lowell Rd	Parkway Rd to Pengra Rd	0.000	3.874	3.874	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$2,420,000		
16	Jeans Rd	Huston Rd North to Fawver Dr	1.185	3.000	1.815	LC TSP	Bike-Ped Facilities See Veneta TSP #D6	\$1,100,000		
138	Lost Creek Rd	Hwy 58 to Parvin Rd	0.000	0.669	0.669	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$420,000		
89	Marcola Rd*	Parsons Cr Rd to Wendling Rd	10.430	11.700	1.270	LC TSP	Rural Modernization - Widen and overlay. Includes curb and sidewalk in Marcola.	\$1,900,000		
88	Marcola Rd*	Wendling Rd to Johnson Rd	11.700	16.080	4.380	LC TSP	Rural Modernization - Widen and overlay	\$3,000,000		
83	McKenzie View Drive	Coburg Rd to Hill Rd	0.000	6.099	6.099	LC TSP	Rural Modernization	\$3,800,000		
104	Meadowview Rd W	Hwy 99W to Alvadore Rd	0.000	2.952	2.952	LC TSP	Rural Modernization	\$1,850 <u>,</u> 000		
128	Mill Rd*	Hwy 58 to Wheeler Rd	0.000	0.249	0.249	LC TSP	Realignment at Hwy 58	\$400,000		

\*\* Project completed or under contract

	Lane County Transportation System Plan 20-Year Project List											
	i	Pro	jects on Lan	e County R	oads - Sor	ted by TSP	1					
Project			Begin	End				Estimated				
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost				
105	Milliron Rd East*	Hwy 99W to Prairie Rd	0.000	0.402	0.402	LC TSP	Rural Modernization - Widen and overlay. Modernize two railroad crossings. Access to new corrections facility.	\$950,000				
94	Mosby Cr Rd	Currin Connector to Row River Connector #1	1.204	1.632	0.428	LC TSP	Rural Modernization	\$250,000				
123	North Fork Siuslaw Rd	Hwy 126 to Munsel Lake Rd	0.000	0.849	0.849	LC TSP	Rural Modernization	\$550,000				
109	Oaklea Drive	Hwy 99W to 18th Ave West	0.000	1.512	1.512	LC TSP	Rural Modernization	\$950,000				
8	Parsons Creek Rd.	Marcola Rd. to Pioch Ln.	0.000	0.899	0.899	LC TSP	Bike-Ped Facilities – Widen shoulders	\$560,000				
14	Perkins Rd	City Limits to Central Rd	0.420	2.822	2.402	LC TSP	Bike-Ped Facilities See Veneta TSP #D6	\$1,500,000				
81	Prairie Rd***	Maxwell Rd to Beltline	0.118	0.690	0.572	LC TSP	Complete urban Standards	\$350,000				
107	Prairie Rd	NW Expressway to Hwy 99 (Prairie Rd Connector)	2.221	7.850	5.629	LC TSP	Rural Modernization	\$3,500,000				
127	Ridgeway Rd	Hwy 58 to MP 1.0	0.000	1.000	1.000	LC TSP	Bike-Ped Facilities	\$620,000				
102	River Loop #1***	River Rd to Dalewood Street	0.000	0.244	0.244	LC TSP	Urban Standards	\$500,000				
100	River Loop #2***	River Rd to Burlwood Street	0.000	0.990	0.990	LC TSP	Urban Standards	\$2,000,000				
92	Row River Rd	Sharps Cr Rd to Brice Cr Rd	16.230	19.778	3.548	LC TSP	Rural Modernization	\$2,200,000				
96	Scenic Drive ***	River Loop #2 to Beacon Drive East	0.000	0.765	0.765	LC TSP	Urban Standards	\$1,600,000				
93	Sears Rd	MP 0.62 to Saginaw Rd East	0.620	3.240	2.620	LC TSP	Strengthen pavement structure	\$1,100,000				
87	Seavey Loop ***	Hwy 58 to Franklin Boulevard East	0.000	3.791	3.791	LC TSP	Bike-Ped Facilities	\$2,400,000				
133	South Jetty Rd	Hwy 101 to BLM Rd	0.000	0.620	0.620	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$390,000				
117	Spencer Cr Rd	MP 0.5 to Pine Grove Rd	0.500	3.285	2.785	LC TSP	Rural Modernization	\$1,700,000				
99	Spring Creek Drive	River Rd to Scenic Drive	0.000	0.527	0.527	LC TSP	Urban Standards	\$1,100,000				
122	Stagecoach Rd*	Richardson Rd to MP 0.58	0.000	0.580	0.580	LC TSP	Slope stabilization	\$770,000				

\*\* Project completed or under contract

		Lane Cour	nty Transpor	tation System	em Plan 20	)-Year Proje	ct List	
	- <u> </u>	Pro	jects on Lan	e County R	oads - Sor	ted by TSP	1	
Project			Begin	End		-		Estimated
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost
134	Suttle Rd	Hwy 126 to Territorial Hwy	0.000	3.802	3.802	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$2,380,000
6	Tillicum Ave.	Hwy. 58 to Tenas Ln.	0.000	0.263	0.263	LC TSP	Bike-Ped Facilities – Sidewalks and/or widen shoulders	\$200,000
4	Vaughn Rd.	Noti Loop Rd. to Glaze Rd.	0.000	0.953	0.953	LC TSP	Bike-Ped Facilities – Widen shoulders	\$600,000
5	Vaughn Rd.	Canaday Rd. to Territorial Hwy.	7.954	9.906	1.952	LC TSP	Bike-Ped Facilities – Widen shoulders	\$1,220,000
114	Warthen Rd	Territorial Hwy to Knight Rd	0.000	4.008	4.008	LC TSP	Rural Modernization - Widen shoulders for bike use	\$2,500,000
135	Wendling Rd	Marcola Rd to Paschelke Rd	0.000	1.599	1.599	LC TSP	Bike-Ped Facilities - Widen shoulders for bike use	\$1,000,000
131	West Boundary Rd*	End of Pavement to MP 6.4	1.700	6.400	4.700	LC TSP	Pave gravel road	\$2,750,000
		Co	unty Project	ts Identified	in Urban .	Area TSPs		
29	Pearl Street**	Coburg Rd to Miller St	0.025	0.244	0.219	Coburg	Urban Standards - Two-lane facility with curb, gutter, sidewalks, bike lanes,#B1	\$700,000
28	Pearl Street**	Miller St to I-5	0.244	0.640	0.396	Coburg	Urban Standards - Four-lane facility with median treatments, curb, gutter, sidewalks, bike lanes, #B1	\$750,000
28	Coburg Industrial Way**	Pearl Street Intersection				Coburg	Traffic Signal Installation and widening of approach to intersection, #B2	\$0 (est. cost included in #28 above)
71	Bennett Creek Rd	North River Rd to UGB (bridge)	0.000	1.008	1.008	Cottage Grove	Urban Standards - Widen, upgrade guardrail	\$270,000
70	Cottage Grove- Lorane Hwy	City Limit to Gowdyville Rd	0.830	1.174	0.344	Cottage Grove	Bike-Ped Facilities	\$90,000
69	Latham Rd	Hwy 99 to London Rd	0.000	0.965	0.965	Cottage Grove	Bike-Ped Facilities	\$100,000
68	North River Rd	Hwy 99 to Bennett Creek Rd	0.000	0.433	0.433	Cottage Grove	Urban Standards	\$430,000
67	Row River Rd	UGB to Row River	1.042	2.088	1.046	Cottage Grove	Urban Standards - Three-lane facility with bike lanes	\$900,000

\*\* Project completed or under contract

	Lane County Transportation System Plan 20-Year Project List											
	+	Pro	jects on Lar	ie County R	oads - Sor	ted by TSP	+					
Brainet		J	Pagin	End	<b> </b>	<u> </u>		Estimated				
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost				
66	South River Rd**	Hwy 99 to Jason Lee (City Limit)	0.000	0.316	0.316	Cottage Grove	Urban Standards & realign at Hwy	\$660,000				
65	Sweet Lane	Hwy 99 to Talemena Dr	0.000	0.718	0.718	Cottage Grove	Urban Standards	\$570,000				
64	Thornton Lane***	Row River Rd to ECM (Gate)	0.000	0.518	0.518	Cottage Grove	Urban Standards - Add curb, gutter, sidewalks	\$220,000				
62	Harvey Road	At Hwy 99	0.000	0.100	0.100	Creswell	Intersection improvements at Hwy 99, High Priority #9	\$200,000				
3	Heceta Beach Rd***	Hwy 101 to Rhododendron Drive	0.000	1.885	1.885	Florence	Bike-Ped Facilities. Listed as project #I-1	\$150,000				
2	Munsel Lake Rd***	Hwy 101 to North Fork Siuslaw Rd	0.000	2.090	2.090	Florence	Bike-Ped Facilities. Listed as project #I-3	\$150,000				
1	Rhododendron Drive***	City Limits to Heceta Beach Rd	3.440	5.112	1.672	Florence	Urban Standards-Curbs, Sidewalks, bike lanes. Part of project G-4 and bike project I-2	\$1,800,000				
	+	ļļ	<u> </u>		<b> </b>	<u> </u>						
23	6th Avenue West	City Limits to Oaklea Drive	0.000	0.330	0.330	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #1	\$50,000				
22	10th Avenue West	Rose Street South to Oaklea Dr	0.000	0.346	0.346	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #2	\$50,000				
18	18th Avenue East & Deal St Modernization	Highway 99E to Dane Lane	0.000	0.509	0.509	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections., #4	\$700,000				
20	18th Avenue West Modernization	Hwy 99W to Oaklea Drive	0.000	0.854	0.854	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections such as Oaklea Dr and Rose Street., #3	\$1,200,000				
					<u> </u>		-					

\*\* Project completed or under contract

Lane County Transportation System Plan 20-Year Project List										
Projects on Lane County Roads - Sorted by TSP										
Project Number	Road Name	Limits	Begin Milepost	End Milepost	Length	Source	Description	Estimated Cost		
24	High Pass Road Modernization	Hwy 99 to Oaklea Drive	0.000	0.859	0.859	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$1,200,000		
25	High Pass Road Modernization (Future)	Oaklea Drive to UGB	0.859	1.520	0.661	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$900,000		
21	Oaklea Drive Modernization	18th Ave West to High Pass Rd	1.512	2.534	1.022	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #7	\$1,400,000		
17	Pitney Lane North	UGB to High Pass Road	1.370	1.509	0.139	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, and bike lanes, #11	\$200,000		
19	Prairie Road Modernization	Highway 99 to High Pass Road	8.030	9.250	1.220	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #8	\$1,700,000		
26	Prairie Road Widening (Future)	UGB to End (near Hwy 99)	7.300	8.030	0.730	Junction City	Rural Modernization. Widen shoulders. Discussion of prison siting, #9	\$1,000,000		
27	River Road Modernization*	Hwy 99 to vicinity of Strome Ln	0.000	0.694	0.694	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #10	\$970,000		
75	Fish Hatchery Rd	Hwy 58 to 1st Street	0.000	1.650	1.650	Oakridge	Bike-Ped Facilities. Joint with Oakridge. #D2.	\$1,000,000		
72	Fish Hatchery Rd	At Hwy 58	0.000	0.040	0.040	Oakridge	Realignment of Fish Hatchery Rd at Hwy 58 approach. Joint with Oakridge, ODOT, #D7	\$100,000		
73	High Prairie Rd	1st Street to UGB	0.000	0.947	0.947	Oakridge	Bike-Ped Facilities. Intersection improvements and shoulders. Joint with Oakridge, Part of #D3 and #D6	\$600,000		
74	Westfir-Oakridge Rd	Norquist Lane to High Prairie Rd	5.707	6.065	0.358	Oakridge	Bike-Ped Facilities. Joint with Oakridge, #D3.	\$750,000		

\*\* Project completed or under contract

Lane County Transportation System Plan 20-Year Project List										
Projects on Lane County Roads - Sorted by TSP										
Project			Begin	End				Estimated		
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost		
40	18th Avenue**	Bertelson Rd to Willow Creek Rd			0.710	TransPlan	Urban Standards, 2 lane facility, #303	\$1,100,000		
35	31st Street	Hayden Bridge to U Street	0.542	0.905	0.850	TransPlan	Urban Standards, 2-3 lane facility, #765	\$1,300,000		
47	Aspen St*	Centennial to West D	0.000	0.441	0.441	TransPlan	Urban Standards, 2 to 3 lane facility, joint project Spfd, #809	\$750,000		
46	Beaver Street Arterial	Hunsaker Drive to Wilkes Drive			0,840	TransPlan (Future List)	R.O.W. acquisition, general construction, new arterial #503	\$1,700,000		
51	Bloomberg Connector (McVay Highway Realignment)*	McVay Highway to 30th Ave			0.400	TransPlan	Modification of connection of McVay Hwy to 30th Ave, #297	\$800,000		
43	Coburg Rd**	Kinney Loop to Armitage Park	3.229	4.419	1.190	TransPlan	Urban Standards. Reconstruct to three-lane facility to UGB, turn lane at park entrance, rural, #625	\$2,400,000		
45	County Farm Loop	North to South Section	0.000	0.550	0.550	TransPlan	Urban Standards, 3-lane facility, joint with Eugene, #631	\$825,000		
42	County Farm Loop	West to East Section	0.550	1.080	0.530	TransPlan	Urban Standards, 2 lane facility, joint with Eugene, #632	\$800,000		
58	Delta/Beltline Interchange*					TransPlan	Interim/safety improvements; replace/revise existing ramps; widen Delta Hwy bridge to 5 lanes, #638	\$8,000,000		
32	Division Avenue	Delta Highway to Beaver Street			0.890	TransPlan (Future List)	New frontage road with Willamette River Bridge #512	\$4,000,000		
34	Fox Hollow Rd	Donald Street to UGB	8.829	9.329	0.500	TransPlan	Urban Standards, 2 lane facility, #245	\$850,000		
59	Game Farm Rd North*	I-5 to Coburg Rd	0.419	1.690	1.271	TransPlan	Urban Standards, Upgrade to 2-3 lane facility, Joint with Eugene,#654	\$2,200,000		
50	Game Farm Rd South	Game Farm Rd East to Harlow Rd			0.930	TransPlan	Urban Standards, 2 lane facility,#737	\$2,100,000		
54	Green Hill Rd*	Barger Drive to Airport Rd	3.820	5.820	2.000	TransPlan	Rural widening and intersection modifications,#485	\$2,000,000		
10	Green Hill Rd*	Barger Drive to W 11th	1.540	3.820	2.280	TransPlan	Urban Standards, Upgrade to 2-3 lane facility, joint with Eugene, #454	\$5,000,000		

\*\* Project completed or under contract

Lane County Transportation System Plan 20-Year Project List										
Projects on Lane County Roads - Sorted by TSP										
Project	Bood Namo	Limito	Begin	End	Longth	Source	Decorintion	Estimated		
Number			mieposi	wineposi	Lengin	Source	Description			
39	Green Hill Rd**	North Boundary of Airport to Airport Rd			2.060	I ransPlan	Closing of existing road and realignment on east boundary of airport property, #486	\$3,000,000		
49	Grove Street	Silver Lane to Howard	0.000	0.528	0.160	TransPlan	Bike-Ped, Striped Lane/Route #515	\$0		
30	Hayden Bridge Rd (includes 23rd)	Yolanda to Marcola Rd			1.540	TransPlan	Urban Standards, 2 lane facility, #747	\$2,300,000		
61	W. Hilliard Ln.	River Road to North Park	0.000	0.840	1.090	TransPlan	Bike-Ped, Striped Lane or Route, #518	\$0		
38	Horn Lane	N. Park Ave to River Road	0.000	0.928	0.928***	TransPlan	Bike-Ped, Striped Lane or Route, #521	\$150,000		
80	Howard Ave	River Road to North Park	0.000	0.956	0.960	TransPlan	Bike-Ped, Striped Lane or Route, #524	\$0		
48	Hunsaker Lane/Beaver Street*	River Rd to Division Ave	0.000	1.141	1.141	TransPlan	Urban Standards-2 lane facility,#527	\$2,200,000		
60	Irving Rd at NW Expressway*	Gainsborough Entrance to Prairie Rd			0.300	TransPlan	Construct overpass over NW Expressway and railroad. Signalize access on north side,#530	\$4,200,000		
52	Irvington Drive*	River Road to Prairie Rd	0.000	1.479	1.479	TransPlan	Urban Standards,2-3 lane facility, #533	\$4,000,000		
55	Jasper Road Extension*	Main Street to Jasper Rd			3.200	TransPlan	Construct 4 lane arterial: phasing to be determined: improve RR X-ing at Jasper Rd; at grade interim improvement; grade separation long range improvement,#66	\$10,400,000		
33	Lake Drive/N. Park Ave	Howard to Horn Lane***	0.000	0.430	0.430	TransPlan	Bike-Ped, Striped Lane or Route, #536	\$170,000		
56	Laura St*	Scots Glen Drive to Harlow Rd	0.000	0.273	0.273	TransPlan	Urban Standards - Three-lane facility	\$550,000		
36	N. Park Avenue	Maxwell Rd to Horn Lane	0.268	1.298	1.030	TransPlan	Bike-Ped, Striped Lane/Route #539	\$200,000		
31	Prairie Road**	Carol Lane to Irvington Drive	1.589	1.939	0.350	TransPlan	Urban Standards, 3 lane-lane facility, #472	\$825,000		
57	River Rd*	Beacon Dr to Carthage	7.366	7.747	0.381	TransPlan	Urban Standards - Three-lane facility, #545	\$1,100,000		
53	Royal Avenue*	Terry Street to Greenhill Avenue	2.267	3.267	1.000	TransPlan	Urban Standards - Three-lane facility, joint with Eugene, #481	\$2,200,000		
41	W 11th Avenue	Greenhill Road to Danebo			1.510	TransPlan	Urban Standards, 5 lane facility, joint with Eugene, ODOT, #333	\$4,500,000		

\*\* Project completed or under contract
Source TSP Sort – Project List

Lane County Transportation System Plan 20-Year Project List									
Projects on Lane County Roads - Sorted by TSP									
Project			Begin	End				Estimated	
Number	Road Name	Limits	Milepost	Milepost	Length	Source	Description	Cost	
44	Wilkes Drive	River Road to River Loop #1	0.000	0.932	0.932	TransPlan	Urban Standards, 3-lane facility, #554	\$1,400,000	
15	Polton Hill Dd	Torritorial Hung to LICP	0.000	1 1 7 1	1 171	Vanata	Urban Standarda, #P5	¢1 000 000	
15			0.000	1.171	1.171	veneta		\$1,900,000	
11	Bolton Hill Rd	At Territorial Hwy	0.000	0.000	0.000	Veneta	Traffic Signal. Possible joint project with Veneta, ODOT. #B15	\$200,000	
13	Bolton Road East	Territorial Hwy to Huston Rd South	0.000	1.300	1.300	Veneta	Bike-Ped Facilities, #D6	\$320,000	

\* Programmed (all or partially) in the adopted 2003-2007 Lane County CIP. CIP cost used.

\*\* Project completed or under contract

\*\*\* Project added, description modified, or for other reasons may require action on City TSP.

## MAPS

MAP 1:	Lane County
MAP 2:	Lane Transit District (LTD)
MAP 3:	Air, Rail, Water, and Pipelines
MAP 3a:	Inset for Map 3
MAP 4:	Index to Functional Class Subareas
MAPS 4-1 through 4-19:	Functional Class Subareas
MAPS 5a through 5c:	TSP Project List

## APPENDICES

А.	Acronyms				
В.	County Roads Inventory				
C.	Lane County Bicycle Map				
[available in hard copy only- contact Lane County Public Works					
Engineering, Transportation Planning Section, 682-6936]					
D.	Detailed Level of Service Methodology				
<b>E.1.</b>	Public Involvement Plan				
E.2.	Summary of 1995 Public Comments				
F.	Lane County General Plan Chart				
G.	Needs Assessment Data				
H.	Findings of Compliance with State Land Use Goals and				
	County Comprehensive Plan				