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LANE TRANSIT DISTRICT
SPECIAL BOARD MEETING/WORK SESSION

December 18, 1996
5:00 p.m.

LTD BOARD ROOM
3500 E. 17th Avenue, Eugene
(off Glenwood Blvd.)

No public testimony will be heard at this meeting.

AGENDA

Page No.

I. ROLL CALL

Bailey _____ Bennett _____ Hocken _____ Kleger _____

Montgomery _____ Murphy _____ Saydack _____

II. CALL TO ORDER

III. WORK SESSION ON TRANSPLAN UPDATE

IV. ADJOURNMENT

Alternative formats of printed material (Braille, cassette tapes, or large print) are available upon request. A sign language interpreter will be made available with 48 hours' notice. The facility used for this meeting is wheelchair accessible. For more information, please call 741-6100 (voice) or 687-4265 (TTY, for persons with hearing impairments).

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DRAFT

Eugene-Springfield Transportation System Plan (TransPlan) Update

Policy-Makers' Decision Package for Draft Plan Direction

November 5, 1996

Lane Council of Governments
125 East 8th Avenue
Eugene, Oregon 97401
(541) 682-4283

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Executive Summary

Introduction

This Decision Package is intended to help policy makers' decide the direction of the draft TransPlan. Staff proposes a set of transportation strategies to be the framework for the plan. The staff recommendations are based on key conclusions drawn from 1) projections from the travel forecasting model, 2) public input, and 3) financial constraints. The main conclusions are that 1) traffic congestion will increase, 2) funding for all transportation needs will be constrained, and 3) demand on the transportation system can best be managed using an integrated set of strategies. Staff is recommending strategies from four categories: 1) system improvements, 2) demand management, 3) land use measures, and 4) financing. These strategies will 1) ensure that the region maintains conformity with air quality standards, 2) reduce vehicle miles traveled per capita during the planning period, and 3) assure funding for maintaining and preserving transportation infrastructure.

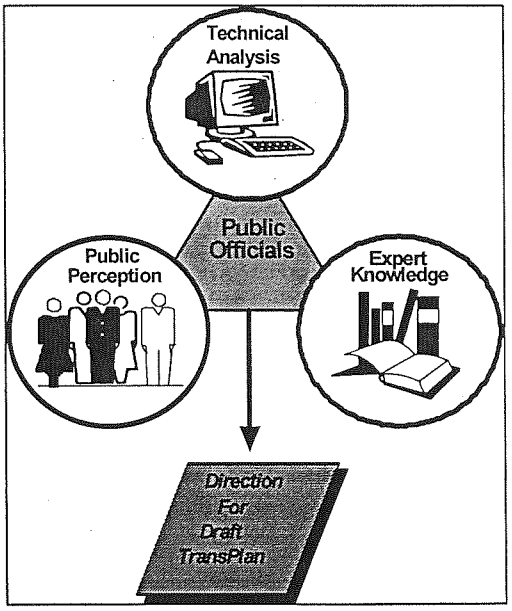
Background

Typical of policy-making in general, the development of regional transportation policy embodied in the *TransPlan* update will rely on input from the following three sources:

1. Public perception;
2. Technical analysis; and
3. Expert knowledge.

Figure 1: Policy Decision-Making Process
, shows the relationship between these three inputs and policy-makers. To best inform the policy decisions associated with *TransPlan*, the update process has been explicitly developed to facilitate input from all three sources.

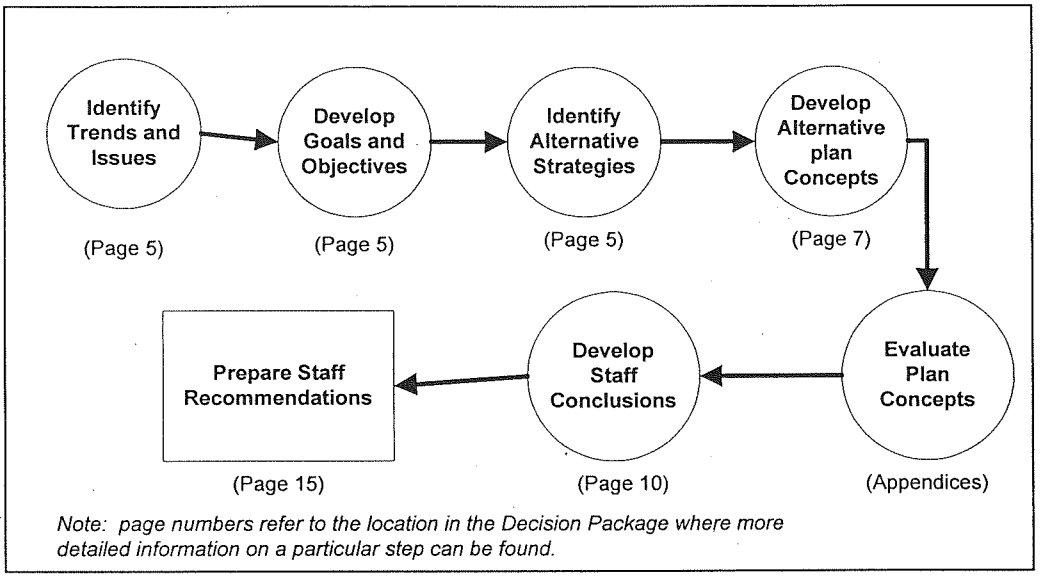
Figure 1: Policy Decision-Making Process



Specifically, the process to date has followed the steps illustrated in Figure 2: TransPlan Update Process to Date, on page iv. Trends and issues regarding transportation were identified and formed the basis for an interim set of goals and objectives. A "tool-box" of strategies was identified for each of three areas - land use (LUM), transportation demand management (TDM), and transportation system improvements (TSI). Those strategies showing the most potential formed the basis for a broad range of alternative plan concepts. These plan concepts were evaluated using transportation system modeling. Public sentiment on strategies was obtained through the use of a community survey. Stakeholders also provided input on the alternative plan

concepts at a symposium held in late August 1996. Key materials from the Symposium are attached in Appendix B: Stakeholder Symposium Packet Materials. To help establish the set of recommendations, staff developed a set of key conclusions drawn from the evaluation process.

Figure 2: TransPlan Update Process to Date



The update process from this point involves the following steps:

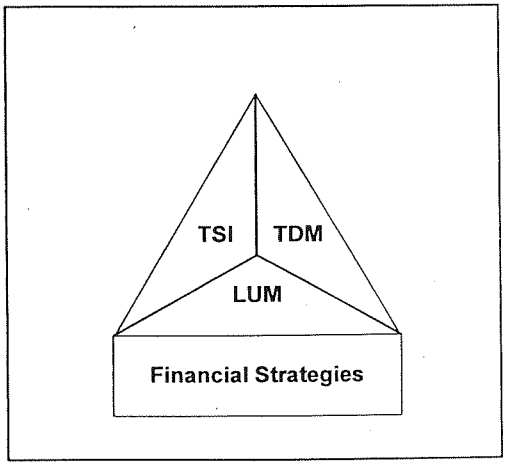
1. Obtain policy direction on guiding framework for draft plan (by March 1997)
2. Draft the plan (complete by July 1997)
3. Conduct public review and adopt plan (by March 1998)

Nature of the Decision on Draft Plan Direction

At this point in the update process policy-makers are being asked to provide direction on the framework within which *TransPlan* is to be drafted. As illustrated in Figure 3: Guiding Framework, this framework consists of four sets of strategies:

- Land use measures (LUM);
- Transportation demand management strategies (TDM);
- Transportation system improvement strategies (TSI); and
- Finance strategies.

Figure 3: Guiding Framework



The framework will provide guidance on:

1. The ***range*** of strategies to develop further in the draft plan (e.g., demand management, land use, system improvements); and
2. The general ***level*** of strategies pursued in the draft plan (voluntary TDM, nodal development in areas with greatest potential, road improvements necessary to address safety issues and key areas of congestion, etc.).

It should be noted that details on policy language and implementation measures will be developed as part of the preparation of the draft plan. The draft plan will be developed to allow flexibility in implementation by each jurisdiction.

Conclusions

To assist in the development of recommendations, staff developed a series of conclusions concerning transportation and land use planning in the Eugene-Springfield region. These conclusions were drawn through consideration of the following factors:

- Staff research and professional experience;
- Input from *TransPlan* stakeholders;
- Input from appointed and elected officials;
- Community survey results;
- Results of studies conducted as part of the *TransPlan* update process (Appendix F: TransPlan Update Products List); and
- Projections from the travel forecasting model.

The conclusions are presented below. Page numbers at the end of each conclusion refer to the page in the Decision Package where each conclusion is described in more detail.

Conclusion 1. The region can make progress towards achieving the *TransPlan* Update Interim Goals and Objectives by implementing a balanced and integrated set of land use, transportation demand management and transportation system improvement strategies *(page 10)*.

Conclusion 2. The region needs to prepare for the inevitability of increased traffic congestion on roadways and plan accordingly *(page 11)*.

Conclusion 3. The ability of the region to fund capacity-increasing projects will be limited by other allocation decisions *(page 12)*.

Conclusion 4. The region can maintain conformity with air quality standards over the next 20 years *(page 12)*.

Conclusion 5. The region can reduce vehicle miles traveled (VMT) per capita, but will not achieve the state mandated goal to reduce VMT per capita by 10% over existing conditions over the next 20 years *(page 12)*.

Conclusion 6. Transportation demand management strategies can contribute to greater use of alternative modes of transportation *(page 13)*.

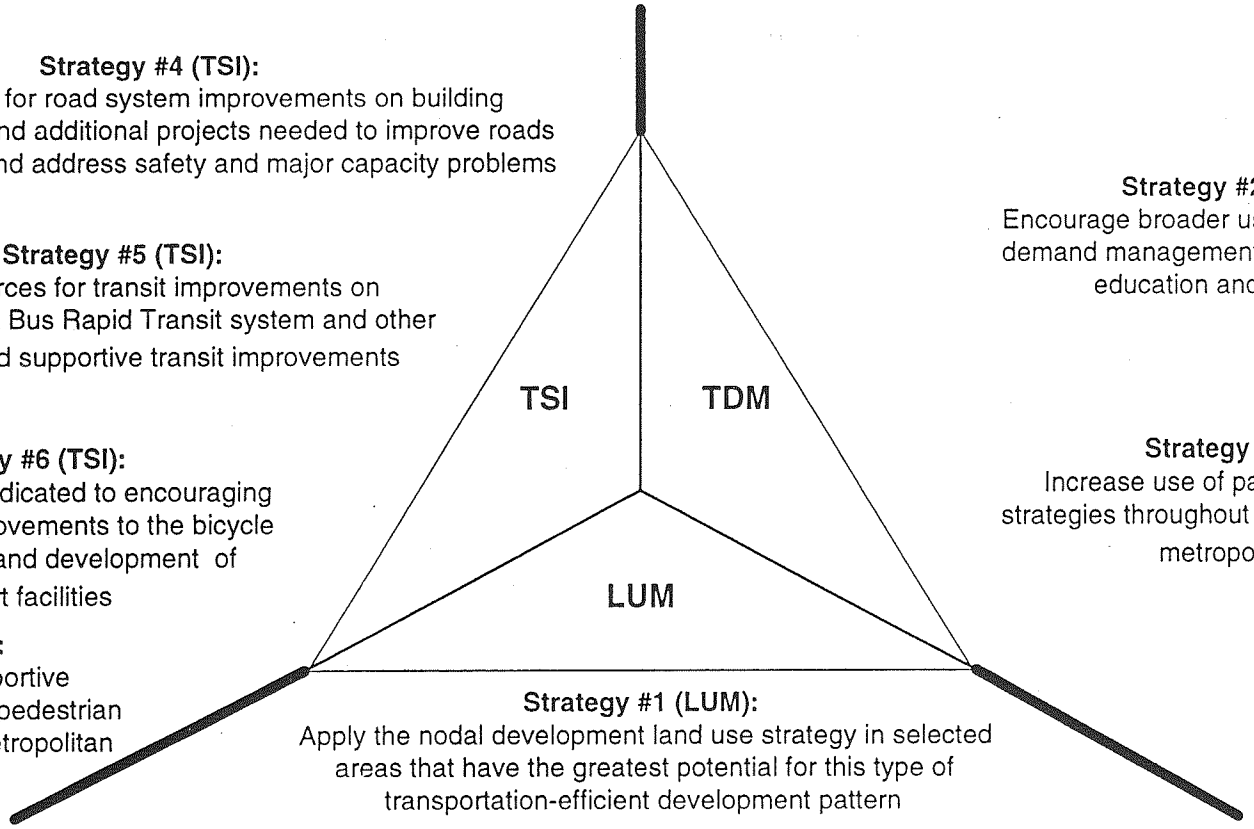
Conclusion 7. The application of demand management pricing strategies, other than parking pricing, would not be cost-effective demand management strategies during the 20-year planning period *(page 14)*.

Conclusion 8. A Bus Rapid Transit system could significantly improve transit service. However, urban rail is not feasible in the 20-year planning period. *(page 14)*.

Recommendations

On the basis of the conclusions outlined above, staff is recommending a set of strategies to serve as the guiding framework for the draft *TransPlan*. Consistent with the use of the strategy triangle in previous phases of the update, these recommendations attempt to represent an integrated and balanced approach to transportation and land use planning in the Eugene-Springfield area. In addition to these three types of strategies, staff is also recommending a set of finance strategies which would provide the basis for implementation of the other strategies. A summary of the recommended strategies is provided in Figure 4: Summary of Strategy Recommendations, on page vii.

Figure 4
Summary of Strategy Recommendations



Strategy #4 (TSI):
Focus resources for road system improvements on building committed projects and additional projects needed to improve roads to urban standards and address safety and major capacity problems

Strategy #5 (TSI):
Focus resources for transit improvements on development of a Bus Rapid Transit system and other compatible and supportive transit improvements

Strategy #6 (TSI):
Focus resources dedicated to encouraging bicycle use on improvements to the bicycle system network and development of support facilities

Strategy #7 (TSI):
Create pedestrian-supportive environments and improve pedestrian facilities throughout the metropolitan area

Strategy #2 (TDM):
Encourage broader use of transportation demand management programs through education and incentives

Strategy #3 (TDM):
Increase use of parking management strategies throughout the Eugene-Springfield metropolitan area

Strategy #1 (LUM):
Apply the nodal development land use strategy in selected areas that have the greatest potential for this type of transportation-efficient development pattern

Financial Strategies

Strategy #8 (Finance):
As a first priority, develop adequate resources to fund operations and maintenance activities of roads and off-street bike paths at a level that minimizes the need for more expensive future repair

Strategy #9 (Finance):
Identify resources to adequately cover existing and future preservation needs

Strategy #10 (Finance):
Ensure resources are available to improve collectors and arterials to urban standards

Strategy #11 (Finance):
Pursue additional funding for capacity-increasing improvements needed to address safety and major capacity problems

Strategy #12 (Finance):
Pursue resources to provide incentives for developers to implement Nodal Development

Strategy #13 (Finance):
Pursue additional funding sources for transportation demand management (TDM) and non-transit alternative mode improvements not currently fundable through the state gas tax

Strategy #14 (Finance):
Seek additional funding for transit improvements

Action Requested

Action Requested: Review the recommended strategies and supporting documentation included in this Decision Package. Approve recommended strategies (with any additional refinements) as the guiding framework for development of the draft *TransPlan.*

Descriptions of the strategies that staff is recommending as the framework for the draft *TransPlan* are provided in the Staff Recommendations on Draft Plan Framework section, beginning on page 15. In summary, staff is recommending the following strategies:

Land Use Strategy

Strategy #1: Apply the nodal development land use strategy in selected areas that have the greatest potential for this type of transportation-efficient development pattern.

Transportation Demand Management Strategies

Strategy #2: Encourage broader use of transportation demand management programs through education and incentives.

Strategy #3: Increase use of parking management strategies throughout the Eugene-Springfield metropolitan area.

Transportation System Improvement Strategies

Strategy #4: Focus resources for road system improvements on building committed projects and additional projects needed to improve roads to urban standards and address safety and major capacity problems.

Strategy #5: Focus resources for transit improvements on development of a Bus Rapid Transit system and other compatible and supportive transit improvements.

Strategy #6: Focus resources dedicated to encouraging bicycle use on improvements to the bicycle system network and development of support facilities.

Strategy #7: Create pedestrian-supportive environments and improve pedestrian facilities throughout the metropolitan area.

Finance Strategies

Strategy #8: As a first priority, develop adequate resources to fund operations and maintenance activities of roads and off-street bike paths at a level that minimizes the need for more expensive future repair.

Strategy #9: Identify resources to adequately cover existing and future preservation needs.
Strategy #10: Ensure resources are available to improve collectors and arterials to urban standards.
Strategy #11: Pursue additional funding for capacity-increasing improvements needed to address safety and major capacity problems.
Strategy #12: Pursue resources to provide incentives for developers to implement Nodal Development.
Strategy #13: Pursue additional funding sources for transportation demand management (TDM) and non-transit alternative mode improvements not currently fundable through the state gas tax.
Strategy #14: Seek additional funding for transit improvements.

Guide to the Decision Package

Purpose

The Policy-Maker's Decision Package is a set of materials designed to inform public officials and facilitate the process of obtaining general policy direction for the draft *TransPlan*. In order to develop the draft *TransPlan*, staff needs to obtain policy-makers' general preferences on the types of strategies for inclusion in the draft plan. The preferred strategies will provide the guiding framework for the draft plan. Once the draft plan is developed, attention will focus on review of policy language and implementation measures.

The strategies described in the Staff Recommendations on Draft Plan Framework component of this Decision Package, beginning on page 15, are proposed to provide the guiding framework for the draft plan. Extensive supporting documentation is provided to ensure that policy-makers have enough information to determine support for the strategies. Decisions regarding the strategy details will be made as part of the draft plan review process.

Summary of Package Components

The first section, ***Action Requested***, beginning on page 1, summarizes the action requested of public officials and presents a list of the recommended strategies.

The second section, ***Guide to the Decision Package***, beginning on page 3, describes the purpose of the Decision Package and its components. The three inputs to public policy decision making are defined. The need for a balanced set of strategies is described and a summary of the *TransPlan* update process is provided. A table listing the strategies contained within the six alternative plan concepts, the stakeholders' recommended concept and staff's recommended concept is included. The next steps in the *TransPlan* update process are outlined.

The third section, ***Staff Conclusions***, beginning on page 10, presents the key conclusions that staff reached regarding transportation and land use planning in the Eugene-Springfield region. The recommended strategies are supported by these conclusions.

The fourth section, ***Staff Recommendations on Draft Plan Framework***, beginning on page 15, presents the strategies recommended for inclusion in the draft plan.

The ***Appendices***, at the end of the document, provide supporting documentation for the recommended strategies.

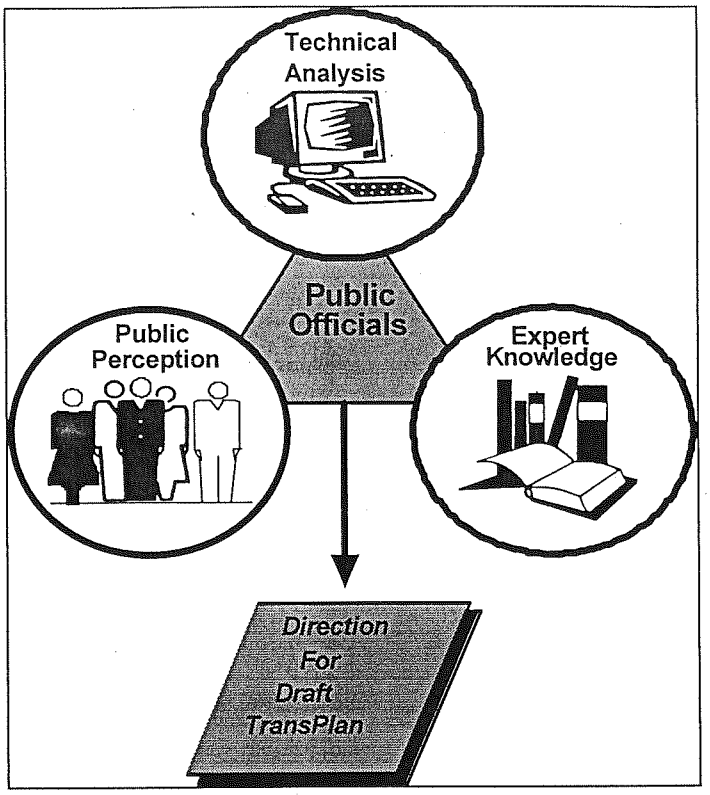
Inputs to Public Policy Decision-Making

To best inform policy-makers regarding policy issues associated with the update, planning efforts have facilitated participation from the three inputs to public policy decision-making:

1. Public perception;
2. Technical analysis; and
3. Expert knowledge.

Figure 2 shows the relationship between these three types of input and policy-makers.

Figure 1: Inputs to Public Policy Decision-Making



Public perception is the way citizens think about issues. Throughout the *TransPlan* update process, a wide variety of both broad-based and focused public involvement techniques have provided citizens with multiple opportunities to make their opinions known. Materials from the Stakeholder Symposium Packet, included in Appendix B: Stakeholder Symposium Packet Materials, contains in depth coverage of the general public's perception of various strategies, obtained through a Spring 1996 community survey. Staff considered public perception as they drew conclusions and identified recommended strategies.

Technical analysis results have provided the basis for an informed assessment of the set of impacts and tradeoffs of various strategies. Technical data has been generated by the travel forecasting model and by a number of technical studies conducted during the update process. Technical analysis tools are limited by their inability to interpret the meaning or relevancy of the data generated. Materials from the Stakeholder Symposium Packet, included in Appendix B: Stakeholder Symposium Packet Materials, contains in depth coverage of the technical evaluation of the alternative plan concepts.

Expert knowledge allows us to evaluate and synthesize information by drawing on the expertise of staff, consultants, elected and appointed officials, stakeholders and the community at large. Staff considered technical analysis results as they drew conclusions and identified recommended strategies for this Decision Package.

Highlights of the update process follow.

Issues Identification

Early in the *TransPlan* update process, staff and stakeholders identified a range of transportation-related issues to address, including the following:

- The challenges of accommodating a growing population with diverse needs and interests;
- The challenges of improving transportation options;
- The region's increasing reliance on the automobile;
- Existing land use patterns which favor auto use over other forms of transportation.
- The challenges of maintaining mobility given increasing levels of traffic congestion; and
- Federal and state policies calling for integrated transportation and land use planning, reduced traffic congestion and vehicle miles traveled per person, and increased use of alternative modes.

Goals and Objectives

In 1995, a stakeholder focus committee reviewed and refined goals and objectives for the *TransPlan* update process. The committee's work resulted in the *TransPlan* Update Interim Goals and Objectives, which were approved by the Metropolitan Policy Committee in December 1995. The first goal calls for an integrated transportation and land use system that supports choices in modes of travel and supports development patterns that will enhance livability, economic opportunity and the quality of life. The objectives for the first goal call for **land use patterns** that encourage alternatives to use of autos; **system improvements** that support choices in travel modes; and **travel behavior changing strategies** aimed at reducing traffic congestion and reducing the need for additional road capacity and parking. For a complete list of the goals and objectives, see Appendix A: TransPlan Update Interim Goals and Objectives.

Alternative Strategies

As opportunities for addressing the transportation-related issues were identified and categorized, three sets of strategies were developed:

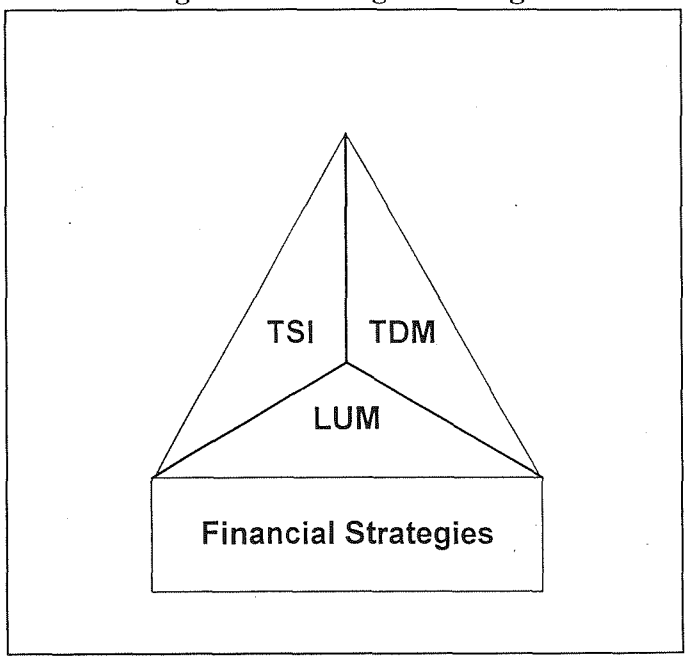
1. **Transportation Demand Management (TDM) strategies**;
2. **Land Use Measures (LUM)**; and
3. **Transportation System Improvements (TSI)**.

Demand management strategies focus on reducing the demand placed upon the transportation system by redistributing or eliminating vehicle trips and encouraging use of alternative modes. Demand management strategies provide opportunities to lower capital costs while recognizing that there will be a need for expanding capacity for all users of the system: bus riders, pedestrians, bicyclists and drivers.

Land use measures focus on the relationship between land use and transportation by encouraging development patterns that reduce the need for autos, reduce trip lengths and support the use of alternative modes. Balanced land use patterns allow future growth to occur without the congestion and deteriorating road conditions experienced in many metropolitan regions.

System improvements focus on increasing efficiency and adding capacity or new facilities to the existing highway, transit, bicycle and pedestrian systems. System improvements recognize that our streets and highways are of vital importance to supporting all modes of transportation, the region's development and quality of life.

Figure 2: Strategies Triangle



The three types of transportation planning strategies can be compared to the three sides of a triangle, as illustrated in the strategies triangle. In this analogy, each side of the triangle, or set of strategies, is an integral part of the whole – be it a complete triangle or a balanced transportation system.

The concept of integrated transportation planning requiring the three types of strategies was presented to stakeholders at the first *TransPlan* update symposium in November 1993. Stakeholders reviewed a preliminary "toolbox" containing the three types of strategies. After the symposium, stakeholder task forces formed to study the strategies and identify those that seemed most effective and that might have the best opportunities for implementation in the Eugene-Springfield area. The strategies under consideration were presented to the public for review and comment at the third community workshop in May 1994.

Preliminary Plan Concepts

Through consideration of stakeholder task force recommendations and input from citizens and public officials, plan concepts were developed based on of the three sets of alternative strategies. In Fall 1994, a strategies survey was mailed to over 90,000 households to provide citizens with an opportunity to give input on the types of strategies that were considered by the stakeholder task forces. The preliminary plan concepts were reviewed with stakeholders at the second symposium in April 1995.

Alternative Plan Concepts

The preliminary plan concepts underwent an iterative evaluation, review and refinement process, which was shaped by input from citizens, stakeholders, public officials, staff, and results of technical studies and the travel forecasting model. A series of focus groups were conducted with community members and business representatives in December 1995 and May 1996 to obtain feedback on the alternative plan concepts. Additionally, a community survey on the alternative plan concepts was conducted in Spring 1996 with a random sampling of 500 Eugene and Springfield residents. In May 1996, two community workshops were conducted to provide citizens with additional opportunities to review and comment on the alternative plan concepts.

The alternative plan concepts resulting from the refinement process represented our best efforts to develop a range of plan concepts containing all three types of strategies which respond to the stated preferences of citizens, stakeholders, and public officials; address legislative requirements; and make progress towards achieving the *TransPlan* Update Interim Goals and Objectives. These alternative plan concepts are summarized below and are described in-depth in the Stakeholder Symposium Packet, August 1996.

Plan Concept #1: The *Base Case* contained strategies which were essentially an extension of current transportation and land use conditions and trends. The concept served as a point of reference from which to gauge the effectiveness of the other plan concepts.

Plan Concept #2: The *Demand Management Emphasis* plan concept contained higher levels of TDM strategies and lower levels of land use and system improvement strategies.

Plan Concept #3: The *Land Use Emphasis* plan concept contained higher levels of land use strategies and lower levels of demand management and system improvement strategies.

Plan Concept #4: The *System Changes Emphasis* plan concept contained higher levels of system improvement strategies and lower levels of land use and demand management strategies.

Plan Concept #5: The *Equal Emphasis* plan concept attempted to strike a balance between the three strategy categories.

Plan Concept #6: The *TPR VMT Goal Compliance* plan concept emphasized demand management and system improvement strategies to meet the Transportation Planning Rule goal of reducing vehicle miles traveled by 10 percent over current conditions by the year 2015.

Stakeholders reviewed the alternative plan concept strategies and provided their recommendations on preferred strategies to include in a plan concept at the third symposium in August 1996. For a comprehensive overview of the stakeholder recommendations, see Appendix C: Stakeholder Recommendations and Results of the Third Symposium. In summary, stakeholders recommended the following strategies:

- Encourage nodal development in all potential areas;
- Expand voluntary demand management measures;

- Increase the statewide gas tax to both raise revenues and influence demand;
- Increase parking fees and apply them region-wide;
- Reduce transit fares (contingent upon replacement revenue);
- Build the existing and committed projects network; and
- Build a Bus Rapid Transit system (without wholly exclusive right-of-way).

After the third symposium, staff reviewed prior policy direction and public input; stakeholder recommendations arising from the symposium; and technical analysis findings in the effort to develop a plan concept containing strategies that could provide the framework for the draft *TransPlan*. Table 1: Plan Concepts, on page 9, presents the strategies making up the six alternative plan concepts originally considered by stakeholders, the strategies within the plan concept stakeholders recommended, and the strategies within the plan concept that staff recommends for the draft *TransPlan*.

Draft Plan Direction

Staff will present the Decision Package to the Eugene, Springfield and Lane County planning commissions and the Lane County Roads Advisory Committee in December 1996. These advisory bodies will be asked to recommend approval of the framework (with any refinements) to elected officials.

Recommendations obtained from the appointed officials will be incorporated into the Decision Package, which will then be presented to the Eugene and Springfield City Councils, Lane County Board of Commissioners and the Lane Transit District Board of Directors in January and February 1997. These elected and appointed officials will be asked to provide policy direction for the draft plan.

Table 1: Alternative Plan Concepts and Strategies Table

This table shows the strategies contained within each alternative plan concept including the stakeholder and staff recommendations

Strategies

	Alternative Plan Concepts							
	Original Plan Concepts							
	Base Case	TDM	LUM	TSI	Equal	VMT	Stakeholder Alternative	Staff Recommendation
Transportation Demand Management Strategies								
Voluntary Programs	X	X	X	X	X	X	X	X
Pricing Measures:								
Increased Parking Fees in Central Eugene		X	X	X	X	X	X	X
Reduced Transit Fare		X			X	X	X	X
Bridge Tolls						X		
Gas Tax		X				X	X	X
Land Use Measures								
Existing Land Use Patterns	X							
Nodal Development Land Use Patterns:								
In All Potential Areas			X				X	X
Only in New Growth Areas		X		X				
Only in Central Areas					X			
Only on Major Bus Routes						X		
Transportation System Improvements								
Transit Systems								
Base Transit System	X							
Enhanced Transit System		X	X					
Bus Rapid Transit (BRT) System				X	X	X[E]	X	X
Roadway Networks								
Existing and Committed Projects Network	X	X				X		
Committed and Planned Projects Network			X	X	X		X	X

E=This BRT system includes exclusive right-of-way (dedicated lanes) on BRT routes.

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Staff Conclusions

Staff developed a series of conclusions concerning transportation and land use planning in the Eugene-Springfield region. These conclusions were drawn through consideration of the following factors:

- Staff research and professional experience;
- Input from *TransPlan* stakeholders;
- Input from appointed and elected officials;
- Community survey results;
- Results of studies conducted as part of the *TransPlan* update process; and
- Projections from the travel forecasting model.

For each conclusion, an explanation of our reasoning behind the conclusion is provided. The conclusions presented here represent a refinement over the staff conclusions originally included in the Stakeholder Symposium Packet, August 1996.

Conclusion #1:

The region can make progress towards achieving the *TransPlan* Update Interim Goals and Objectives by implementing a balanced and integrated set of land use, transportation demand management and transportation system improvement strategies.

The *TransPlan* Update Interim Goals and Objectives, approved by the Metropolitan Policy Committee in December 1995, have guided the *TransPlan* update. In general, the goals call for an integrated transportation and land use system through land use patterns that support alternative modes use; system improvements that support choices in travel modes and development patterns; and travel behavior-changing strategies that reduce congestion and reduce the needs for additional road capacity and parking.

During alternative plan concept development, performance measures were developed to monitor the plan concepts' ability to achieve the goals and objectives. Based on these performance measures, the technical evaluation results indicate that tradeoffs are inevitable when a plan concept is unbalanced. For example, the *Demand Management Emphasis* plan concept achieves a reduction in VMT per capita; however, the extensive pricing measures employed may be undesirable. Additionally, because this plan concept is limited to the existing and committed roadway network (as opposed to the more extensive set of planned projects) it has a high percentage of congested miles of travel.

The technical evaluation shows that implementing a more balanced set of strategies can result in:

- Fewer vehicle miles traveled system-wide;
- Fewer miles of the transportation system experiencing congestion;
- Decreased drive-alone auto trips and increased shared auto trips; and
- An increase in shorter trip lengths, providing better opportunities for use of alternative modes.

In addition to the support shown for a balanced range of strategies by the *TransPlan* Update Interim Goals and Objectives, technical analysis results, and stakeholder recommendations, the general public has also expressed support. A Community Survey conducted in May 1996 asked citizens for their views on the three categories of strategies. In general, citizens supported nodal development in some areas, voluntary TDM efforts and a range of system improvements.

Conclusion #2:

The region needs to prepare for the inevitability of increased traffic congestion on roadways and plan accordingly.

In all the alternative plan concepts modeled, the travel forecasting model indicated increased traffic congestion on roadways over the next 20 years. Even with extensive road and bridge improvements and pricing measures, congestion levels have been projected to increase. The future congestion levels forecasted for the alternative plan concepts ranged from almost two to over four times existing congestion levels.

The Eugene-Springfield region is not experiencing the severe traffic congestion found in larger metropolitan areas. However, the trends of increasing vehicle miles traveled and growth in average daily traffic on the region's streets are creating traffic congestion that will increase as growth occurs and more vehicles use the system.

Congestion management strategies are needed to maintain mobility and livability within the region. Although new and improved roads and bridges are crucial for providing an efficient and effective transportation system, we cannot rely solely on road and bridge construction to manage congestion. Funding for road construction and maintenance has not kept pace with rising costs. Additionally, we have learned from the experiences of other metropolitan areas that building more roads and adding capacity does not necessarily maintain mobility. Given these findings, an effective congestion management program will need to draw on strategies that reduce the demand placed upon the transportation system and support the use of alternative transportation modes.

Conclusion #3:

The ability of the region to fund capacity-increasing projects will be limited by other allocation decisions.

The ability of the region to fund capacity -increasing projects will be limited by other allocation decisions in the following way:

- The priority and thus the amount of resources allocated to O&M and preservation,
- The level of existing revenues available for capacity-increasing projects which will depend both on state-level decisions (whether or not the gas tax rate is increased, allocation decisions made as part of OTI), and local prioritization decisions; and
- Local decisions on the development of additional local resources for capacity-increasing projects.

Conclusion #4:

The region can maintain conformity with air quality standards over the next 20 years.

Results from the travel forecasting model indicate that the region will be able to maintain conformity with existing national air quality standards through implementation of any of the alternative plan concepts. The model indicates that any combination of road and bridge projects, transit and alternative mode improvements, demand management strategies and land use measures will result in a plan that conforms to the Eugene-Springfield area motor vehicle emissions budget for carbon monoxide, which was filed with the Environmental Protection Agency and set forth in the Federal Register, Vol. 58, No 232, page 64163, December 6, 1993.

Once direction on the draft plan is obtained and draft plan development begins, a formal air quality conformity analysis will be conducted.

Conclusion #5:

The region can reduce vehicle miles traveled (VMT) per capita, but will not achieve the state mandated goal to reduce VMT per capita by 10% over existing conditions over the next 20 years.

The state has mandated a vehicle miles traveled (VMT) per capita reduction target of 10 percent over existing conditions over the next 20 years. Results from the travel forecasting model indicate that a combination of strategies are necessary to reduce VMT per capita. Progress can be made towards the state's VMT reduction target through implementation of changes in land use patterns and implementation of other strategies aimed at reducing reliance on the automobile.

Staff Recommendations on Draft Plan Framework

Staff is recommending a set of strategies to provide the guiding framework for the draft *TransPlan*. These strategies represent an integrated and balanced approach to transportation and land use planning in the Eugene-Springfield area. The recommended strategies are drawn from the three fundamental components of transportation policy: land use measures, system improvements, and demand management. In addition to these three types of strategies, staff is also recommending a set of finance strategies which would provide the basis for implementation of the other strategies. A summary graphic of the recommended strategies is included in the Executive Summary.

Each strategy is described in detail using the following categories:

- Description;
- Background;
- Staff analysis and conclusions
- Possible issues and implications; and
- Possible implementation options.

The **Description** component provides a general overview of the strategy. The **Background** component provides information on the region's current use of the strategy. The **Staff Analysis and Conclusions** component integrates findings from the three inputs to public policy decision making: public perception, technical analysis results and staff knowledge. The **Possible Issues and Implications** component lists some factors that may need to be considered for strategy implementation. Not all the possible issues and implications will apply since some are unique to specific implementation options. The **Possible Implementation Options** section lists some alternatives for implementing the strategy. This list is for informational purposes and is not ranked or prioritized. Implementation measures to carry out the strategies will be proposed by staff and included in the draft *TransPlan*. All of the strategies are recommended for implementation over the twenty-year planning period.

Land Use Strategies

Staff and stakeholders considered nodal development and existing land use patterns before arriving at a land use strategy recommendation. The land use patterns considered included:

1. Existing land use patterns;
2. Nodal development in all potential areas;
3. Nodal development only in new growth areas;
4. Nodal development only in central areas; and
5. Nodal development only on major bus routes.

Strategy #1

Apply the nodal development land use strategy in selected areas that have the greatest potential for this type of transportation-efficient development pattern.

Description: The nodal development land use strategy is proposed for application in selected areas in Eugene-Springfield that have the greatest potential for this type of transportation-efficient development pattern. This strategy assumes that *all areas with potential for nodal development* will be further studied to determine which nodes have the most potential.

The nodal development land use strategy consists of three distinct types of development distinguished by differences in primary land use, intensity of activity, and scale of development. The types proposed include neighborhood centers, commercial centers, and employment centers. Each nodal development type consists of a center containing a mix of compatible land uses, a variety of housing types, and a total population somewhat higher than in areas outside the center. More frequent transit would serve the center and design and development would enhance pedestrian, bicycle, and transit travel options, as well as accommodate automobiles. All areas within the node would be within an average ¼-mile walking distance of the commercial core and transit stops. The neighborhood center type is appropriate for areas that are primarily residential and could support a mix of commercial uses that serve the day-to-day needs of neighborhood residents. The commercial center type is appropriate for locations where concentrations of intensive office, commercial and higher-density residential development and significant amounts of employment exist and will likely increase. The employment center type is appropriate for areas that contain concentrations of light industrial, office, and/or institutional uses.

Background: The nodal development land use pattern is an expansion and refinement of existing concepts and policy direction in the *Metro Plan*. Forty-six areas in Eugene-Springfield were identified as having potential for the nodal development pattern. These areas will be studied further for redevelopment potential, market demand, infrastructure, and consistency with residential and commercial land needs.

The *TransPlan* Update Interim Goals and Objectives support implementation of nodal development as do the Staff Conclusions. The *TransPlan* stakeholders recommended encouraging nodal development in all potential areas.

Staff Analysis and Conclusions: Public response to the proposed nodal development land use strategy has been positive. Research on land use impacts on transportation, along with the results of modeling the proposed nodal development strategy through the travel forecasting model, indicate that this strategy will support increased use of alternative modes of travel (transit, biking, and walking) and reduce the need to use the automobile. The impacts identified by the travel model are slight over the 20-year planning period, because only a small percentage of buildable land is affected. Greater favorable impacts would be expected over a 40 to 50-year period if the strategy is applied to more land area and the *Metro Plan* fundamental principle of compact urban growth is followed.

After additional analysis of the potential nodal development areas is conducted, some of the 46 areas will be identified to have greater potential for nodal development than others. Staff recommends that resources and implementation measures be focused only on the areas with the greatest potential for nodal development.

Possible Issues and Implications:

- Addressing the need to manage urban growth and pursue compact urban growth to provide a market for higher density residential development and redevelopment;
- Identifying the design principles, guidelines or standards needed to ensure effective implementation of the strategy;
- Providing flexibility to allow for jurisdictional differences;
- Determining amount of change needed in *Metro Plan* policies and map designations to direct implementation of the strategy;
- Deciding on appropriate level of implementation (allow, encourage, or mandate);
- Evaluating market support for nodal development;
- Considering the local jurisdictions' ability to implement nodal development;
- Evaluating the costs of implementation; and
- Deciding which potential nodal development areas to focus resources on;
- Coordinating with and ensuring consistency with Eugene's Growth Management Study, Springfield's Commercial Lands Study, and the Metropolitan Residential Lands and Housing Study.

Possible Implementation Options:

A range of possible implementation options are provided below to illustrate the various levels of implementation available. General options are in bold followed by possible measures or approaches to support the option.

Allow:

- Code amendments to remove barriers;
- Changing plan and zone designations;
- Overlay zones to provide option;
- New plan designations to allow mixed use;
- Site plan and design review; and
- Planned Unit Developments.

Encourage:

- The same measures in "Allow" option plus staff technical assistance;
- Streamlined/coordinated development review;
- Marketing programs;
- Economic incentives;
- Focused public investments; and
- Public-private joint ventures.

Require:

- New plan and zone designations;
- Development standards;
- Site plan and design review;
- Specific area plans;
- Local street plans; and
- Refinement plans.

Combination of Options:

- Allow nodal development in most areas;
- Encourage selected areas where opportunities present themselves or where jurisdictions want nodal development; and
- Require where necessary to support major public planning or investment strategies (e.g., BRT pilot corridor).

Phasing of Options:

- Begin with allowing nodal development;
- Encourage nodal development if none are developed within five years; and
- Require nodal development in some areas if none are developed within 10 years.

Pilot Projects:

- Support nodal development in a few locations where jurisdictions want it to happen to support major public planning or investment strategies (e.g., BRT pilot corridor).

Transportation Demand Management Strategies

Staff and stakeholders considered several transportation demand management (TDM) strategies before arriving at TDM strategy recommendations. The TDM strategies considered included:

1. Voluntary programs;
2. Increased parking fees;
3. Reduced transit fares;
4. Bridge tolls; and
5. Gas tax.

Strategy #2

Encourage broader use of transportation demand management programs through education and incentives.

Description: A range of education and incentive opportunities could be used to promote new and existing transportation demand management (TDM) programs which support the use of alternative modes of transportation. This strategy supports the expansion of existing TDM programs and the addition of a wider variety of new TDM programs. This strategy supports a sheer increase in the numbers of people using alternative modes as well as a wider variety of users. Jurisdictional flexibility regarding implementation of TDM programs is supported by this strategy.

Background: A regional TDM program currently operating in the Eugene-Springfield area supports the following voluntary strategies: preferential parking for carpools/vanpools, flexible work scheduling, telecommuting, guaranteed ride home program, employer bus pass program, regional carpool program, and transportation allowances. The employer bus pass program has been especially successful for managing transportation demand for the University of Oregon and Sacred Heart Medical Center. This regional TDM program currently provides marketing and education support.

Feedback from the general public, *TransPlan* stakeholders, planning commissioners, and elected officials indicate strong support for expanding the application and use of voluntary demand management strategies region-wide. Responses to public surveys indicate a broad level of support for encouraging use of alternative modes through voluntary TDM programs. Most survey respondents indicated they would use these programs if the programs were available where they work.

Staff Analysis and Conclusions: Since TDM programs are generally low-cost, the expense of expanding the programs to make them available to a larger segment of the population in the region will likely be offset by the benefits.

Encouraging use of alternative modes will become more important as the region grows and traffic congestion levels increase. Providing for a range of demand management strategies available for implementation could help the region maintain mobility in congested locations. For example, in locations where traffic congestion is due in part to traffic generated by businesses with large numbers of employees, the employers could be required to hire an employee transportation coordinator and implement programs that encourage employee use of alternative modes.

When evaluating the effectiveness of TDM programs, we must keep in mind that TDM programs have the greatest impact on work commute trips which comprise 14% of the trips in the region.

Possible Issues and Implications:

- Identifying incentives (economic and otherwise) to support increased participation in TDM programs;
- Expanding the education component of TDM programs;
- Broadening the population base that uses TDM programs;
- Ensuring jurisdictional flexibility for implementation of TDM programs;
- Addressing locations where traffic congestion is due to large employers;
- Preparing for the possibility of large employer resistance to implementing TDM programs;
- Considering that voluntary measures alone may not solve congestion problems at specific locations; and
- Considering the fairness of selectively implementing TDM programs for specific groups of users or geographic areas.

Possible Implementation Options:

- Expand the scope of marketing and education programs offered through the region's TDM program;
- Provide economic incentives for participation;
- Designate a TDM coordinator at each jurisdiction who is trained in TDM programs and has expertise in business assistance;
- Draft policies directing state and local government agencies to implement TDM programs for their employees;
- Require employers of a certain size to develop TDM programs for employees; and
- Allow local jurisdictions to apply prescriptive TDM measures to "congested spot" areas.

Transportation System Improvement Strategies

Staff and stakeholders considered several different transit and roadway network improvement strategies before arriving at transportation system improvement strategy recommendations. The strategies considered included:

1. Base transit system;
2. Enhanced transit system;
3. Bus Rapid Transit System (with and without wholly exclusive right-of-way);
4. Existing and committed projects roadway network; and
5. Committed and planned projects roadway network.

Strategy #4

Focus resources for road system improvements on building committed projects and additional projects needed to improve roads to urban standards and address safety and major capacity problems.

Description: This strategy calls for resources dedicated to road system improvements to be focused on committed projects and additional projects needed to improve roads to urban standards and address safety and major capacity problems. A key assumption within this strategy is that the region's road network provides the base system for all forms of transportation. Accordingly, this strategy supports projects for a multi-modal transportation system that includes automobiles, freight, transit, bicycles and pedestrians. A second key assumption is that road system improvements alone will not allow us to achieve our transportation planning goals and objectives. However, road system improvements used in conjunction with demand management and land use strategies, such as nodal development, provide much greater opportunities.

Committed projects are found in the Statewide Transportation Improvement Program (STIP) and local capital improvement programs (CIPs). Bringing roads up to urban standards includes adding sidewalks, curbs, drainage, bike lanes and turn lanes.

Additional analysis and evaluation of projects will take place during development of the draft plan. A list of projects will need to be adopted for *TransPlan*.

The project list developed to date is presented in Appendix D: Preliminary Project Lists.

Background: At the third symposium, stakeholders were presented with two roadway networks of system improvements to consider. The first list, called Existing and Committed, contained the base list of projects that staff had developed. Beginning with the original *TransPlan* projects list, the TASC group had removed completed projects and those no longer considered necessary in the 20-year planning period. Projects that were already planned for construction within the 20-year planning period and projects deemed

necessary were added to the list. Most of the base projects are in the STIP. Additional projects were added to the base list that are not yet in the STIP. These are medium-term projects (construction beginning within 5-10 years) that staff expected to be built to address existing capacity and safety problems.

The second list, called Committed and Planned, contained the base list of projects plus additional projects that addressed future capacity problems and supported alternative modes. During the small group discussions, four of the six groups supported the more extensive Committed and Planned road network. However, in the final large group voting session, the majority of stakeholders appeared to prefer the more conservative "base" network.

Staff Analysis and Conclusions: To maintain the region's livability and economic vitality, the road system should be improved to resolve safety, access and congestion problems. Used in conjunction with land use and demand management strategies, the more extensive projects list could better achieve these objectives than the base list. Although, stakeholders appeared to prefer the more conservative Existing and Committed network of projects, it would be difficult to successfully support the stakeholder recommendations for nodal development, a Bus Rapid Transit system, and a general increase in use of alternative modes without making road and bridge improvements beyond those specified in the base network.

Regarding project prioritization, projects that support nodal development, transit, pedestrians, and bicycle use should be given high priority.

All proposed improvements should be designed to avoid or minimize negative impacts on neighborhoods.

Possible Issues and Implications:

- Accepting the reality of higher levels of congestion in the future;
- Identifying additional funding resources;
- Prioritizing projects;
- Ensuring support for the planned land use patterns; and
- Changing Level of Service targets.

Possible Implementation Options:

- Prioritize projects in support of nodal development, transit, pedestrians, and bicycles.

Strategy #5

Focus resources for transit improvements on development of a Bus Rapid Transit system and other compatible and supportive transit improvements.

Description: Staff recommends that transit improvements include Bus Rapid Transit (BRT) along with other compatible and supportive improvements. BRT offers many advantages over the region's current bus service, including increased service frequency, increased capacity, and higher speeds. Under the current proposal, BRT is characterized by the following features:

- Implementation of a pilot corridor;
- Four routes through downtown Eugene, one of which would pass through downtown Springfield, and a circumferential route;
- Feeder bus routes, which would serve neighborhoods not on a BRT line, connecting with BRT bus routes;
- Smaller, neighborhood-friendly buses which can improve service coverage;
- Easy access, low-floor, multiple-door buses;
- Fewer stops than traditional transit service;
- Prepaid fares;
- Consideration of signal prioritization technology to reduce delays; and
- Consideration of exclusive rights-of-way at key congestion points.

In addition to BRT, this strategy supports other transit improvements, including:

- The addition of park and ride lots;
- Relocation of the Springfield transfer station; and
- Operation of an electric shuttle-circulator in the Eugene downtown area with a fareless square service area.

Transit improvements under development, including a new downtown Eugene transit station and new Park & Ride facilities on West 11th and 58th/Main will support the BRT system.

A proposed BRT map is included in Appendix E: Maps.

Background: Lane Transit District has employed long-range financial planning and budgeting to ensure the stability and reliability of its service to the community, and to provide for service expansion in response to community needs. Nevertheless, rapid economic growth and development in recent years throughout the Eugene-Springfield metropolitan areas has challenged LTD to find innovative ways to design and maintain new transit services that can more effectively compete with the automobile. Despite the popularity of rail-based local transit systems in other cities, the studies conducted to date have shown that such services are not warranted in Eugene-Springfield. LTD concluded

that it is more efficient to utilize our available resources and capital investments to their full extent, and build upon the current strengths of the existing transit system through a Bus Rapid Transit system, rather than pursue a rail-based transit system.

Lane Transit District believes that the BRT system should eventually feature exclusive bus lanes along the entire lengths of the BRT corridors. Exclusive bus right-of-way along these major corridors protects transit travel time from the adverse impacts of future traffic congestion and establishes a reserved section of roadway for future conversion to rail, if and when that becomes a feasible option for this community. While it is understood that establishment of system-wide exclusive bus lanes will take some time, LTD believes that an aggressive strategy of acquiring the necessary right-of-way should start immediately.

The travel forecasting model indicates that establishment of a BRT System will have a positive impact on transit use in the metro area with substantial increases in transit ridership, particularly when combined with demand management strategies and nodal development. Improving bus service to rapid transit standards in major corridors results in total travel time that is competitive with cars.

At the third symposium, stakeholders recommended that a BRT system be implemented.

Staff Analysis and Conclusions: BRT would support higher density development along the four transit corridors. The implementation of a BRT system should be paralleled by the designation of nodal development areas along these corridors.

The issue of exclusive right-of-way for BRT has been discussed with stakeholders and jurisdictional staff. Staff recommends that exclusive right-of-way be considered for locations where congestion is most severe.

Possible Issues and Implications:

- Selecting and implementing a pilot corridor for testing BRT;
- Assessing the need for supportive land use patterns along BRT corridors;
- Scheduling the phasing of expansion of the BRT system;
- Determining locations of stations and stops;
- Identifying legislative actions needed to allow bus signal preemption;
- Determining whether a long-term goal of BRT should be to develop a system with 100% exclusive right-of-way;
- Evaluating the extent that exclusive right-of-way is needed to reach BRT system performance objectives.

Possible Implementation Options:

- Implement an interim enhanced transit system;
- Develop a pilot BRT corridor on the existing system; and

- Install a signal preemption system.

Strategy #6

Focus resources dedicated to encouraging bicycle use on improvements to the bicycle system network and development of support facilities.

Description: This strategy addresses the need to improve the region's existing bicycle system and associated facilities in order to increase the percent trips made by bicycle. Critical links in the regional bicycle network need to be completed and new bikeways added to provide access to major destinations and residential areas. Support facilities, such as secure bicycle parking, and safety improvements also need to be provided.

Preliminary lists of committed and proposed projects for each jurisdiction are included in the appendix. A separate category for bicycle projects not connected to road projects is provided on each list. A proposed bicycle system network map is included in the appendix.

Background: An interjurisdictional bicycle staff team has been meeting to work on the bicycle element of *TransPlan*. This team drafted a range of bicycle policies based on the *TransPlan* Update Interim Goals and Objectives. These policies address system improvements, safety, facilities and education opportunities and could provide the basis for a *TransPlan* bicycle element. The lists of bicycle projects were developed in support of the draft policies and include projects from the following categories:

- Unbuilt *TransPlan* (1986) projects;
- Eugene Bicycle Master Plan projects;
- Springfield Bicycle Plan projects; and
- Projects for compliance with Transportation Planning Rule requirements to renovate arterials and collectors.

Criteria addressing the network, land use and safety was developed for ranking the projects. Funding allocation will determine the number of projects ultimately included in *TransPlan*. Some of the projects included in the list are planned for construction beyond the *TransPlan* update 20-year planning period. These proposed "future" projects are not considered possible *TransPlan* projects at this time, so they were not ranked using the bicycle project criteria. They will be included in a separate category for future planning purposes.

The cities of Eugene and Springfield have expressed interest in folding their bicycle master plans into *TransPlan*. Coordination with these plans will need to occur as the draft *TransPlan* is developed.

Staff Analysis and Conclusions: The strategy of encouraging bicycle use through system improvements and support facilities works in conjunction with the nodal development land use strategy and demand management strategies. Shorter trips, made possible through the compact, mixed-use form of nodal development, encourage bicycle and pedestrian trips. Demand management strategies, which encourage the use of alternative modes, would be supported by an improved bicycle system and facilities.

The bicycle system improvements will need to be coordinated with other types of system improvements (e.g., road, bridge and transit projects). A possible benefit of coordination is that high-priority bicycle projects could be completed faster if the timelines for related, yet lower-priority, street improvements were accelerated.

Possible Issues and Implications:

- Coordinating with the existing Eugene Bicycle Master Plan and its proposed projects;
- Coordinating with the Springfield Bicycle Plan (Draft, May 1996);
- Obtaining funding for bicycle projects; and
- Coordinating bicycle projects with other system improvements.

Possible Implementation Options:

- Reallocate available resources to fund completion of proposed bicycle system improvements and facilities at an accelerated rate;
- Use street and highway projects (e.g., resurfacing, widening, upgrading) and transit capital projects as a basis for implementing bicycle projects;
- Seek additional revenue sources to facilitate construction of bicycle projects and facilities;
- Implement policies requiring bike facilities (e.g., adequate, safe bike storage/parking) at public buildings and new commercial and multi-family residential developments; and
- Provide incentives for existing commercial and multi-family residential developments to improve bike facilities.

Strategy #7

Create pedestrian-supportive environments and improve pedestrian facilities throughout the metropolitan area.

Description: This strategy addresses the need to improve the region's pedestrian facilities in order to increase the percent of trips made by walking. Providing pedestrian-friendly sidewalks on streets and ensuring all intersections give safe service to pedestrians is a part of this strategy. In addition, this strategy supports landscaping and design, particularly in nodal development areas, to provide easy and comfortable pedestrian access to shops and transit.

Staff Analysis and Conclusions: This strategy is supported by nodal development land use patterns that feature residential development in close proximity (walking distance) to parks, schools, shops and employment centers.

Possible Implementation Options: Amend development codes to include the following general provisions:

- Require sidewalks on all streets;
- Require sidewalk separation from the curb on arterials and major collectors;
- Require sidewalk widths to be commensurate with the classification of street;
- Minimize left turn movements at busy pedestrian intersections;
- Require construction of raised medians at intersections on arterials with four or more lanes;
- Require all intersection lighting to illuminate the crossing and waiting areas to make the pedestrian silhouette clearly visible to approaching vehicles;
- Design intersections to minimize turn movement conflicts between pedestrians and traffic; and
- Develop pedestrian design standards for nodal development areas.

Finance Strategies

The following finance strategies have been reviewed by staff, but have not been reviewed by the stakeholders. These strategies have been developed since the August symposium, and are meant to support the preceding strategies. The purpose of the finance strategies is to ensure that funding is available to implement the land use, transportation demand management, and transportation system improvement strategies which will provide the framework for the draft *TransPlan*. The seven finance strategies presented in this section are organized in the following categories:

- **Category 1**: Funding the **maintenance, preservation, and improvement to urban standards** of the existing road system;
- **Category 2**: Funding **capacity-increasing improvements** to the road system necessary to meet transportation safety and efficiency goals;
- **Category 3**: Funding the implementation of **land use strategies**; and
- **Category 4**: Funding **alternative modes** (transit and non-transit).

An overall issue with finance strategies, not necessarily explicit in the strategy descriptions, is that a significant portion of transportation revenues come from the state and federal systems. State and federal revenues, specifically State Highway Trust Fund (SHTF) and Timber Receipts, have in some cases been declining and, overall, the purchasing power has been eroded by inflation. In addition, the expenditure of SHTF revenues is being reorganized as part of the Oregon Transportation Initiative. In the event that these revenues continue to decline, or fail to keep pace with inflation, the region will consider local sources of revenue to replace or supplement insufficient state and federal revenues.

Finance Category 1: Funding the Existing Road System

The existing road system requires resources for ongoing operations, maintenance, and preservation. In addition, there are parts of the system that require improvements in order to meet existing urban standards. Operations and maintenance (O&M) generally includes activities necessary to keep the transportation system safe and in repair (e.g., patching the pavement, clearing snow and ice). Preservation activities generally extend the useful life of a facility, and are larger in cost and scope than O&M (e.g., repaving).

According to preliminary estimates (assuming the system is maintained at current levels), operations, maintenance, and preservation of the transportation system will cost $412.8 million (in current dollars) over the next 20 years. According to preliminary estimates of revenues (including a regularly increasing state gas tax and federal forest receipts at current non-guaranteed levels after the guarantee expires), the region will have $311.2 million available for operations, maintenance, and preservation activities. These estimates yield a shortfall of about $100 million over the 20 year period, this estimate is considered to be conservative. This set of

strategies, therefore, focuses on ways to increase revenues available for O&M and preservation activities, and improvements to urban standards.

Note: The Staff Analysis and Conclusions and Possible Implementation Options sections for strategies #8, #9 and #10 have been combined to avoid redundancy.

Strategy #8

As a first priority, develop adequate resources to fund operations and maintenance activities of roads and off-street bike paths at a level that minimizes the need for more expensive future repair.

Description: Much of the technical analysis and public dialogue around *TransPlan* has dealt with alternative scenarios and policy options related to land use and urban form, demand management, and system improvement approaches to address future transportation needs. As important as these options and strategy discussions are, it remains true that nearly all of the region's travel during the next 20 years and beyond will rely on the existing system of streets, highways, and bicycle and pedestrian facilities. Therefore it is critical to ensure that current and future funding and resource allocation decisions address the ongoing operation, maintenance and preservation needs of this system.

Operations and maintenance activities are routine in nature, small in scale, and generally performed by city employees/staff. They are traditionally top priority because they maintain the safety of the system, and are relatively inexpensive. Patching pavement postpones the need to repave entire facilities, good pavement maintenance postpones the need to tear it up and reconstruct it. These are all activities that need to occur periodically, the strategy here is to minimize over time the need to perform the most expensive preservation activities.

Status:

Current resources are barely adequate to support ongoing maintenance and operation of this system, and are not adequate to provide the level of preservation that is needed. Efforts are under way at both state and local levels to address the problem. The Oregon Transportation Initiative is a major intergovernmental effort to develop a recommended transportation funding package for enactment by the 1997 state legislature. The status of the revenue sources available for these activities follow.

- *State Highway Trust Fund Revenues:* Though they have been proposed, the last two legislative sessions have failed to pass a gas tax increase. The Oregon Transportation Initiative package for the 1997 legislative session includes a gas tax increase. Historically O&M and preservation of the regional transportation system has been funded by the State Highway Trust Fund and Federal Forest Receipts. Currently,

Trust Fund revenues are not increasing with inflation and Federal Forest Receipts are declining.

- *Federal Forest Receipts:* Currently under guarantee by the federal government at gradually decreasing levels. Guarantee expires around 2005. Road partnership revenues are assumed to apply to O&M and preservation before capital projects.

- *Stormwater user fees*: City of Eugene uses stormwater user fees to fund street sweeping and maintenance of drainages, Springfield uses it to pay for some of the operation and maintenance of the drainage system.

Strategy #9

Identify resources to adequately cover existing and future preservation needs.

Description: The strategy is to pursue sufficient funding for the preservation of the existing transportation system in order to minimize the need for more expensive reconstruction costs in the future. Specifically, funding for a maintenance and preservation level sufficient to ensure that at least 80% of the system is rated fair or better (FOB) would be sought.

Status:

See status section under Strategy #8.

Strategy #10

Ensure resources are available to improve collectors and arterials to urban standards.

Description: Improving to roads to urban standards usually involves adding sidewalks, curbs, gutters, and bike lanes to existing facilities. Within city limits, these activities are partially funded by assessments. This strategy would involve evaluating existing revenues to make sure they are adequate to cover the costs of these activities.

Status: Currently all new facilities in the Eugene-Springfield metropolitan area are being built to urban standards, but there are existing facilities that lack sidewalks, curbs, gutters, and bike paths. Some of these facilities are hazardous especially to pedestrians and bicyclists. Jurisdictions are planning to gradually bring all collectors and arterials to urban standards. This strategy seeks to ensure revenues available for that purpose. It generally supports the transportation goal of having a balanced, multi-modal transportation system.

Revenue sources are less of an issue in Eugene and Springfield where assessments and SDCs are collected to cover these kinds of costs. Lane County assessments cover a much

smaller percentage of these costs, however. The revenues currently available for these activities follow.

- *Systems Development Charges (SDCs).*
- *Assessments* .

Staff Analysis and Conclusions for Strategies #8, #9 and #10:

Strategies #8, #9 and #10 are closely related in that they compete for some of the same revenue sources. For that reason, the issues, analysis, and conclusions around the strategies are combined.

Issues

- The State gas tax rate is not indexed to inflation. In addition, as fuel efficiency increases, revenues decrease relative to road use. Consequently, the rate needs to be periodically raised by the legislature in order to keep pace with increasing costs.
- If the system is not adequately maintained, costs to system users will increase in the form of travel time, fuel efficiency, and vehicle maintenance. In addition, if O&M is deferred long enough, more expensive reconstruction is required.
- Reconstruction of neglected facilities is much more expensive than regular maintenance activities. Eventually, all roads need to be reconstructed. However, with adequate O&M and preservation, the need to reconstruct can be significantly reduced over time. Neglecting facilities causes the need for reconstruction to arise sooner or more frequently.
- Because O&M and preservation take first priority, failure to fund O&M and preservation will result in less money for modernization, including congestion mitigation.
- Currently, state highway trust fund revenues do not cover O&M and preservation costs.
- The goal is to fund O&M and preservation at a level such that at least 80% of the system is rated "fair or better" (FOB). All facilities are rated periodically according to a standard scale as being in very good, good, fair, poor, or very poor condition.

Analysis

The State assumes in their financial forecasts that the legislature will pass gas tax increases at an average of 1.25¢ per year. Using that assumption, and reasonable assumptions about the allocation of those revenues to the Metro Area, preliminary estimates show a $100 million shortfall in local revenues available for operations, maintenance, and preservation over the 20-year period.

Conclusions

In order to minimize costs, it is important to maintain and preserve the system at a level such that at least 80% of the system is rated fair or better. If this happens, more expensive preservation activities such as reconstruction of a facility is postponed.

Possible Implementation Options for Strategies #8, #9 and #10:

- Increase levels of existing revenue sources
  - ⇒ Pursue an increase in the state gas tax rate.
  - ⇒ Pursue an increase in the portion of the existing gas tax revenue received by the regions and/or local governments.

- Identify/pursue new sources of revenue
  - ⇒ Pursue an increase in gas tax at the local level.
  - ⇒ Pursue new local revenue sources (transportation utility fee, bonding).

Finance Category 2: Funding Capacity-Increasing Improvements

Strategy #11

Pursue additional funding for capacity-increasing improvements needed to address safety and major capacity problems.

Description: This strategy supports the financing of system improvements which address safety and major capacity problems. A preliminary list of projects is included as an appendix.

Some financing tools are in place at the city and county levels to collect revenues for capacity-increasing improvements (SDCs, assessments). These tools would be evaluated to ensure that current rates are appropriate. New tools would be considered as well. The future allocation of state revenues is unknown at this point. The share available for modernization in general may decrease substantially. Most (non-transit) federal revenues are available for capacity-increasing improvements as well.

Status: The Metro Area jurisdictions continue to implement planned projects through the STIP and local capital improvement programs. Staff will identify a project list for the updated *TransPlan* that supports other proposed transportation and land use strategies, addresses safety and major capacity problems, and falls within expected financial capability.

Most revenue sources are earmarked by law or by convention for particular types of expenditure. Assessments are collected on a project by project basis and are spent only on that particular project. Systems Development Charges are collected to pay for growth-

related projects that maintain the current level of service of the transportation system. These projects are usually capital projects. If the light rail equity fund is approved, it will be available for capital projects as well. The revenue currently available for these activities follow.

- Assessments
- Systems Development Charges (SDCs):
- SB 1156 - LRT Equity Fund: In preliminary estimates, the region is assumed to spend $35 million in Equity Fund revenues (High Speed Rail dedicated funds and Lane County expenditures outside of the Metro Area not included) on capital projects in the Metro Area.

Staff Analysis and Conclusions:

Issues

- Accepting higher levels of congestion
- Need for additional resources to maintain mobility and support use of all modes
- Need to ensure support for the planned land use patterns
- Changing Level of Service targets
- SDCs do not cover 100% of growth-related transportation costs. Currently, Metro Area state and county facilities are excluded from the calculation of SDC rates.
- Assessments only partially fund projects that are improving existing facilities to urban standards.

Analysis

This financial strategy supports Strategy #5 which calls for road system improvements focused on the resolution of safety, access, and congestion problems in order to maintain the region's livability and economic vitality. All proposed improvements should be designed to avoid or minimize negative impacts on neighborhoods. Improvements to the road system should support the use of all modes (BRT, bike, pedestrian, and auto) and the movement of goods and services.

Many of the planned projects identified in the current *TransPlan,* as well as other major new projects, are necessary to support land use, transit improvements, and to reduce congestion at key points in the road system. Results from the travel forecasting model indicates that most of the projects identified in *TransPlan* are still needed to accommodate projected growth in the region. Additional projects beyond those identified in the existing *TransPlan* will be needed by 2015 to reduce congestion at key locations in the regional road system.

This strategy is to ensure that funds are available to build the projects described above.

Conclusions

Some local financing tools are in place to pay for capacity-increasing projects. As prioritization decisions are made among O&M and preservation and capacity-increasing projects, these tools may need to be evaluated.

Possible Implementation Options:

- Public/private joint ventures
- Develop a more rigorous process for prioritizing capacity-increasing projects.
- Ensure that SDC rates reflect actual transportation costs (some structures are not currently included).
- Expand transportation SDCs to include costs not currently covered (e.g., local share of state and county projects in Metro Area).
- Review existing city and county assessment practices for possible change.

Finance Category 3: Funding Incentives for Nodal Development

Strategy #12

Pursue resources to provide incentives for developers to implement Nodal Development.

Description: The nodal development land use strategy (see page 16) is more likely to be successful if incentives are provided to encourage developers to build in designated nodal development areas. This is particularly true for development in developed areas where redevelopment or infill is necessary, since this type of development generally involves higher costs. This strategy seeks to generate resources to support provision of incentives, such as technical design assistance, marketing, fee and tax reductions, and public infrastructure improvements.

Status: A couple of statewide incentive programs are in place to support transportation-efficient development. Both are funded under the Transportation and Growth Management Program administered by ODOT and DLCD. One is the "Smart Development" marketing program. This program makes available to developers and lenders information on successful projects around the country, and provides awards for this type of development as well as free advertising for the projects. The second program is called "Quick Response." It provides funding for designers to work with developers and local jurisdictions to develop plans for transportation-efficient development. This program has been used to help property owners develop a proposed specific development plan (the McKenzie Neighborhood Plan) for a 100 acre site in the Game Farm Road area of Springfield.

Staff Analysis and Conclusions:

Issues

- Market support for nodal development
- Nodal development is relatively new and risky to developers
- Many builders can't get financing for mixed-use or urban housing projects because of lack of credit and/or experience.

Analysis

According to studies (Draft "Market Demand Study for Nodal Development," ECONorthwest/Leland Consulting Group, October 1996) development compatible with nodal development is risky to developers since it is new and unknown, and it is often difficult to get financing for. According to the study, some nodal development will occur in the next twenty years, and public policies will strongly influence the marketability of nodal development. Possible financial incentives for encouraging particular types of development are listed below as implementation options.

Throughout the stakeholder process, voluntary measures supported by incentives have generally been preferred over mandatory requirements to implement transportation strategies. In particular, focus group participants believe that mixed-use development should be encouraged and facilitated but not required. Offering financial incentives and other support for nodal development is more in line with public preferences than regulatory measures.

Conclusions

Incentives should be developed and used to encourage nodal development consistent with adopted policies.

Possible Implementation Options:

- Tax increment financing
- Tax abatement
- SDC policy refinement
- Tax credits
- Local improvement districts
- Land write down
- Land rezones
- Provision of building plans (with builder)
- Provision of site plans (with developer)
- Streamlined permitting process
- Technical design assistance

Finance Category 4: Funding Alternative Modes

Strategy #13

Pursue additional funding sources for transportation demand management (TDM) and non-transit alternative mode improvements not currently fundable through the state gas tax.

Description: A balanced approach to address the region's transportation issues involves several TDM measures as well as bike and pedestrian system improvements. Currently these types of improvements are not fundable through state gas tax revenues. This strategy focuses on the pursuit of flexible funding sufficient to achieve alternative mode goals.

The TDM and alternative mode strategies with significant financial implications (see implementation options for Strategies #2, #3, #6, #7) are: recommending incentives for firms to implement TDM strategies; and identifying revenues for alternative mode projects such as bike paths.

Status: Currently, ISTEA funding is the only source of revenue with the flexibility to fund alternative mode projects. Specifically, ISTEA Enhancement Revenues are generally available to bike-related projects. Awarded on a project by project basis, however, future levels of this revenue source are difficult to project. At this time other ISTEA revenues are used largely to fund road, off-street bikeway, and transit projects.
Staff Analysis and Conclusions:

Issues

- The restrictions on State Trust Fund revenue expenditure limits the ability to pursue alternative modes goals.
- Currently Eugene/Springfield is not a Transportation Management Area (TMA). Under existing ISTEA guidelines, it will become a TMA around 2002 when the Census confirms that the population of the region is greater than 200,000. It may be possible to attain TMA status before 2002. One advantage of being a TMA is that federal funds are allocated directly to TMAs rather than through the state, which would provide more local control over ISTEA funding.

Analysis

Throughout the stakeholder process, voluntary measures supported by incentives have generally been preferred over mandatory requirements to implement transportation strategies.

Many of the bike projects from *TransPlan* are being carried over into the new plan because revenues to build the projects have not been available. Some have been postponed until the accompanying road project is built.

Possible Implementation Options:

- Provide economic incentives for firms to implement TDM strategies.
- Change tax valuation of surface lots.
- Institute a per space fee for new parking construction.
- Assess fee for spaces above minimums.
- Seek additional revenue sources to facilitate construction of bicycle projects and facilities (e.g. increase /shift local transportation SDC allocation, establish local sales and/or gas tax).
- Incentives for existing commercial and multi-family residential developments to improve bike facilities.
- Increase use of ISTEA funding for TDM and non-transit alternative mode system improvements.
- Explore options to increase spending flexibility of state gas tax revenue.
- Explore local options for funding alternative modes.

Strategy #14

Seek additional funding for transit improvements.

Description: This strategy supports the Lane Transit District's efforts to secure sufficient funding to implement their long-range transit strategy (see Strategy #5, page 24). The core of that transit strategy is to implement Bus Rapid Transit (BRT), and build supporting projects such as park and ride lots.

Status:

Short-term transit costs of all kinds are currently covered. Uncertain federal funds and long-term BRT capital needs present long-term finance challenges.

Staff Analysis and Conclusions:

Issues

- Continued availability of federal funds
- State constitutional restriction on use of auto-related taxes for transit
- Extent of exclusive right-of-way to be purchased for the BRT system

Analysis

A primary source of transit revenue, the payroll tax, does increase with both growth in the work force and with inflation (via wage increases). Current revenues (such as the payroll tax and farebox revenues), therefore, can reasonably be expected to cover the current level of transit service being provided. Grants and new revenues will be required to pay for some capital costs such as park and ride lots, signal preemption, and other strategies involving the purchase of right-of-way. The focus of this strategy, therefore, is on funding these kinds of capital costs.

Possible Implementation Options:

- Seek discretionary federal funds for BRT system and other major capital projects
- Obtain state funding for transit
- Slow implementation of BRT to match available funds

Appendix A:

TransPlan Update Interim Goals and Objectives

Goal 1: Provide an integrated transportation and land use system that supports choices in modes of travel and development patterns which will enhance livability, economic opportunity and the quality of life.

Goal 1 Objectives:

1-1. Design and develop land use patterns that encourage alternatives to dependence on use of the automobile and help implement the Eugene/Springfield Metro Area General Plan, as well as statewide transportation goals.

1-2. Support choices in modes of travel and desired patterns of development through the design and implementation of appropriate system improvements.

1-3. Develop and implement strategies to change travel behavior to reduce traffic congestion and the need for additional road capacity and parking and to support desired patterns of development.

Goal 2: Enhance the Eugene-Springfield Metropolitan area's livability, economic opportunity and quality of life by providing a transportation system that is:

a) balanced,
b) interconnected,
c) accessible,
d) affordable,
e) efficient,
f) economically viable,
g) financially stable,
h) environmentally responsible,
i) responsive to community needs and neighborhood impacts,
j) supportive of responsible and sustainable development, and
k) safe.

Goal 2 Objectives:

2-1. Provide a balanced, multi-modal transportation system that gives people practical, convenient choices or options to driving alone in an automobile and supports the increased use of alternatives to the single-occupant automobile, including walking, bicycling, riding public transit and vehicle-pooling.

Definition: A balanced transportation system is one that provides people a variety of transportation choices and takes advantage of the inherent efficiencies of each transportation option.

2-2. Provide an inter-modal, interconnected regional transportation system which ensures ease of transfer between modes of travel and appropriate access to all areas of the region, state, and nation for the movement of people and goods.

Definition: An inter-modal, interconnected transportation system is one that provides effective and efficient connections between sidewalks, bike routes, roads, transit stops, bus stations, train stations, and airports and is an integral part of the regional and state transportation network. With respect to the movement of goods, an intermodal system also provides for the efficient loading, unloading and transfer of freight.

2-3. Provide a transportation system that is accessible and affordable for all potential users and to all areas of the community.

Definition: An accessible transportation system is one that offers all people convenient, reliable, and affordable transportation options and serves all areas of the community.

2-4. Provide an efficient transportation system for pedestrians, bicyclists, public transit users, and automobile users, and for the movement of goods and the provision of services, including public safety.

Definition: An efficient transportation system is one that minimizes trip length, frequency and time for users, optimizes the cost-effectiveness and convenience of all transportation options, and meets or exceeds appropriate minimum service standards and user needs.

2-5. Ensure an economically viable and financially stable transportation system.

Definition: An economically viable and financially stable transportation system is one that is cost efficient, financially feasible, and has sufficient, ongoing financial support to ensure all elements of the adopted system can be implemented and continue to provide the level of service desired by the community.

2-6. Provide an environmentally responsible transportation system for the Eugene-Springfield area.

Definition: An environmentally responsible transportation system is one that respects both the natural and built environments, minimizes unavoidable adverse impacts, strives to conserve natural resources, minimizes transportation-related energy consumption, supports increased use of fuel-efficient transportation options, supports achievement of air quality, noise abatement, and water quality standards, and maintains the livability of neighborhoods.

2-7. Provide a transportation system that satisfies the Eugene-Springfield Metropolitan Area community needs.

Definition: A transportation system that satisfies community needs is one that maximizes transportation choices, maintains the livability of neighborhoods, and supports a sense of community.

2-8. Provide a safe transportation system.

Definition: A safe transportation system is one that is designed, built and operated to minimize risk of harm to people and property and to allow people to feel confident and secure in and around all modes of travel.

Goal 3:	Help achieve Goals 1 and 2 by providing information to the area's citizens to increase their awareness of transportation issues, secure their involvement in dealing with the issues, and assist them in making informed transportation choices, including options available and the real costs of those options.

Appendix B:

Stakeholder Symposium Packet Materials

Alternative Plan Concepts

Overview of Alternative Plan Concepts and Strategies

Alternative Plan Concepts

- Effective transportation system planning involves three types of strategies:
  - Transportation Demand Management strategies;
  - Land Use Measures; and
  - Transportation System Improvements.
- The Base Case and the five alternative plan concepts are presented.

Strategies

Transportation Demand Management Strategies

- Voluntary programs
- Pricing measures

Land Use Measures

- Existing Land Use Patterns
- Nodal Development Land Use Patterns

Transportation System Improvements

- Transit Systems
- Roadway Networks

Alternative Plan Concepts

- The Base Case serves as a point of reference from which to gauge the effectiveness of the five alternative plan concepts.

- Demand Management Emphasis
- Land Use Emphasis
- System Changes Emphasis
- Equal Emphasis
- TPR VMT Goal Compliance

Overview of Strategies and Alternative Plan Concepts

- This paper provides an overview of the five alternative plan concepts under consideration.
- The strategies within each alternative plan concept are defined.
- Maps of the alternative nodal development patterns, transit systems, roadway networks, transportation problem areas, and bicycle system are presented at the end of this section.

Background

Effective transportation system planning involves three types of methods, or *strategies*, for achieving plan goals and objectives:

- Transportation Demand Management (TDM) strategies;
- Land Use Measures (LUM); and
- Transportation System Improvements (TSI).

The concept of integrated transportation planning requiring the three types of strategies was presented to stakeholders at the first *TransPlan* update symposium in 1993. After the symposium, stakeholder task forces formed to study the strategies and identify those that seemed most effective and that might have the best opportunities for implementation in the Eugene-Springfield area. Preliminary plan concepts containing the three types of strategies were developed based on the stakeholder task force recommendations and input from citizens and public officials. These were reviewed with stakeholders at the second symposium in April 1995. The plan concepts underwent an iterative evaluation, review, and refinement process, which was shaped by input from citizens, stakeholders, public officials, staff, and results of technical studies and the travel forecasting model.

The alternative plan concepts resulting from the refinement process represent a conscious effort to develop a range of plan concepts that contain all three types of strategies; respond to the preferences of citizens, stakeholders, and public officials; address legislative requirements; and achieve *TransPlan* update goals and objectives.

The Base Case "trends scenario" and the five alternative plan concepts are presented in the Alternative Plan Concepts and Strategies Table within this section. Descriptions of the strategies, the Base Case, and the alternative plan concepts follow.

Strategies

Transportation Demand Management Strategies

Transportation demand management (TDM) strategies include both voluntary programs and pricing measures.

Voluntary Programs

The majority of the voluntary TDM programs are employer-based, and because they are voluntary, there is no legal or regulatory pressure on employers to offer them. Most of these programs are currently offered by some employers in the region. This strategy assumes that use of these programs will increase over the next 20 years. The programs include:

- Preferential parking for carpools/vanpools,
- Flexible work schedules and telecommuting,
- Guaranteed ride home program,
- Employer bus pass program,
- LTD carpool program, and
- Transportation allowances.

Pricing Measures

Varying levels of TDM pricing measures are incorporated into the alternative plan concepts. Descriptions of the different types of TDM pricing measures included in the plan concepts follow.

Increased Parking Fees

This strategy assumes that the downtown Eugene parking management area will be expanded to include all areas within the Central Area Transportation Study and that average parking costs in central Eugene will increase three-fold.

Reduced Transit Fare

This strategy assumes an average fare of $.25 per trip.

Note: A downtown Eugene fareless square is assumed in all of the alternative plan concepts. This is an area in which all transit rides would be free to passengers.

Bridge Tolls

This strategy assumes a toll of $.50 per crossing of the Willamette River on the Washington/Jefferson Bridge, Ferry Street Bridge, Springfield Bridge, and a proposed Valley River Bridge.

Gas Tax

This strategy assumes an additional $1.00 per gallon gas tax in the year 2015. Assuming the average vehicle gets 20 miles to a gallon of gas, a $1.00 per gallon gas tax is equivalent to increasing general vehicle operating costs by $0.05 per mile.

Land Use Measures

Two types of land use patterns are found in the Base Case and alternative plan concepts: existing land use patterns and nodal development land use patterns.

Existing Land Use Patterns

Existing land use patterns assume implementation of the existing *Metro Plan* without significant changes in the patterns of land use and development. Growth is evenly allocated to developable land according to its land use designation. This land use pattern is included only in the Base Case.

Nodal Development Land Use Patterns

A nodal development land use pattern, the primary land use measure, is an expansion and refinement of concepts already included in the *Metro Plan*. Each nodal development pattern consists of a center containing a mix of compatible land uses, a variety of housing types, and a total population somewhat higher than in areas outside the center. More frequent transit would serve the center and design and development would enhance pedestrian, bicycle, and transit travel options, as well as accommodate automobiles. All areas within the center would be within an average ¼-mile walking distance of the commercial core and transit stops.

Four different nodal development land use patterns are proposed as alternative strategies. All options involve changes in plan designations to achieve density and mixed-use targets for nodal development. Maps of the four nodal development strategies are included at the end of this section.

1. Nodal Development in All Potential Areas

This strategy assumes achievement of the nodal development pattern in all Eugene-Springfield areas that have potential for mixed uses and housing types and that are or can be served by transit. Projected increases in population are allocated to these areas at average densities per plan designation as specified in the *Metro Plan*. Projected increases in employment are allocated to these areas based on existing densities (employees per acre) for commercial and industrial land. Forty-six areas are assumed to be fully developed consistent with the proposed nodal development design principles by 2015.

2. Nodal Development Only in New Growth Areas

This strategy assumes achievement of the nodal development pattern only in potential areas that typically have a substantial amount of vacant land, little existing development, and are generally located on the edge of the urban area. Twenty-three areas are assumed to be fully developed consistent with the proposed nodal development design principles by 2015.

3. Nodal Development Only in Central Areas

This strategy assumes achievement of the nodal development pattern only in potential areas located in the central urban parts of the Eugene-Springfield region and along major bus routes where a frequent level of bus service exists or could be provided. In this strategy, the average density levels in the nodal developments are assumed to be higher than the average levels in land use strategies 1 and 2. Also, it is assumed that some land within the urban growth boundary (UGB) will not develop by 2015 because of a lack of necessary urban services. Thirty-six areas are assumed to be fully developed consistent with the higher average density levels and other proposed nodal development design principles by 2015.

4. Nodal Development Only on Major Bus Routes

This strategy assumes achievement of the nodal development pattern only in potential areas located along major bus routes. In this strategy, the average density levels in the nodal developments are assumed to be higher than the average levels in land use strategies 1 and 2. It also is assumed that some land in the UGB will not be developed by 2015. Twenty-six areas are assumed to be fully developed consistent with the higher average density levels and other proposed nodal development design principles by 2015.

Transportation System Improvements

Two categories of transportation system improvements are incorporated into the alternative plan concepts: transit systems and roadway networks.

Transit Systems

Three alternative transit system options were developed. Maps of the transit systems are provided at the end of this section. Evaluation of these alternative transit systems using the travel forecasting model focused on providing a reasonable estimate of service levels to determine transit mode shares and their effects on roadway congestion levels.

All three transit systems assume addition of a new downtown Eugene transit station and new Park & Ride facilities at 11th/Bertelsen and 58th/Main, and operation of an electric shuttle-circulator in the Eugene downtown area, with a fareless square service area.

Base Transit System

The base system is essentially an extension of the 1995 transit system. Provisions are made for modest improvements in transit to keep it comparable with highway improvements. All bus routes and headways are assumed to remain constant (although it is clear that service hours will have to be increased to maintain existing service levels). Service is extended to newly developed areas as demand warrants.

Enhanced Transit System

The enhanced system builds upon the base system by providing 10-minute service frequency on major corridors. The enhanced system also supports nodal development by providing at least 20-minute service to all nodal development areas.

Bus Rapid Transit (BRT) System

BRT contains all the capital improvements planned for the base and enhanced systems and provides more frequent and faster transit service. BRT consists of eight radial routes through downtown Eugene and a circular route. Feeder bus routes, which serve neighborhoods not on a BRT line, connect with the BRT bus routes.

Exclusive right-of-way (lanes dedicated to BRT) on BRT bus routes is an option included in the Transportation Planning Rule (TPR) vehicle miles traveled (VMT) Goal Compliance alternative plan concept (see the Alternative Plan Concepts and Strategies Table).

Roadway Networks

One of two roadway networks are found in each of the 2015 alternative plan concepts: the Existing and Committed Projects Network and the Committed and Planned Projects Network. Maps of the two roadway networks are included at the end of this section. A map showing existing and future safety and capacity problem areas in the roadway networks is also included.

It should be noted that a series of proposed bicycle system improvements are included in all of the alternative plan concepts. A map of these bicycle system improvements is included at the end of this section. In many cases, the roadway networks described reflect on-street bicycle system improvements as well.

Existing and Committed Projects Network

This network includes projects that are under construction or that will be constructed in the next 20 years. In other words, this network assumes construction of all projects currently in the "pipeline," but no additional projects. Most of the existing and committed projects are in the Statewide Transportation Improvement Program (STIP) for 1996-1998. Additional projects are included that are not currently in the STIP. These are medium-term (construction beginning within 5-10 years) projects that staff expected to be built to address existing capacity and safety problems.

Committed and Planned Projects Network

This network includes all projects contained in the Existing and Committed Projects Network, as well as additional projects. Most of the additional projects are included in the current *TransPlan* project list. Staff updated this list by removing projects already constructed and projects that are no longer thought to be necessary in the 20-year planning horizon. Projects that address capacity problems and that are likely to be included in the updated *TransPlan* were added to the list.

Alternative Plan Concepts

The Base Case and the five alternative plan concepts are described in this section and summarized in the Alternative Plan Concepts and Strategies Table.

- The first plan concept, the Base Case, is the "business as usual" scenario, representing a projection of current conditions, trends, and programs into the year 2015. Because the Base Case does not contain any new projects or innovative strategies, it provides a point of reference from which to gauge the effectiveness of the five alternative plan concepts.

- The next three plan concepts, Demand Management Emphasis, Land Use Emphasis, and System Changes Emphasis, emphasize one category of strategies and assume lower levels of the other two categories.

- The Equal Emphasis plan concept contains relatively balanced levels of strategies from each of the three categories.

- The last plan concept, TPR VMT Goal Compliance, contains all the strategies necessary to meet the state's Transportation Planning Rule (TPR) goal of reducing vehicle miles traveled per capita by 10 percent over current conditions by the year 2015.

Base Case

The Base Case contains strategies that are essentially an extension of current transportation and land use conditions and trends into the year 2015. The Base Case serves as a point of reference from which to gauge the effectiveness of the five alternative plan concepts. The Base Case strategies include:

- Voluntary TDM programs,
- Existing land use patterns,
- Base transit system, and
- Existing and committed projects roadway network.

Demand Management Emphasis

This alternative plan concept contains higher levels of TDM strategies and lower levels of land use and system improvement strategies. The following strategies are included:

- Voluntary TDM programs,
- Increased parking fees in central Eugene,
- Reduced transit fare,
- $1.00 per gallon gas tax,
- Nodal development only in new growth areas (23),
- Enhanced transit system, and
- Existing and committed projects roadway network.

Land Use Emphasis

This alternative plan concept contains higher levels of land use strategies and lower levels of demand management and system improvement strategies. The following strategies are included:

- Voluntary TDM programs,
- Increased parking fees in central Eugene,

- Nodal development in all potential areas (46),
- Enhanced transit system, and
- Committed and Planned projects roadway network.

System Changes Emphasis

This alternative plan concept contains higher levels of transportation system improvement (TSI) strategies and lower levels of land use and demand management strategies. The following strategies are included:

- Voluntary TDM programs,
- Increased parking fees in central Eugene,
- Nodal development only in new growth areas (23),
- Bus rapid transit system, and
- Committed and Planned projects roadway network.

Equal Emphasis

This alternative plan concept draws equally from the three strategy categories. The following strategies are included:

- Voluntary TDM programs,
- Increased parking fees in central Eugene,
- Reduced transit fare,
- Nodal development only in central areas at higher average densities (36),
- Bus rapid transit system, and
- Committed and Planned projects roadway network.

Transportation Planning Rule Vehicle Miles Traveled Goal Compliance

This alternative plan concept emphasizes TDM strategies and TSI strategies to meet the Transportation Planning Rule (TPR) goal of reducing vehicle miles traveled (VMT) per capita by 10 percent over current conditions by the year 2015. The following strategies are included:

- Voluntary TDM programs,
- Increased parking fees in central Eugene,
- Reduced transit fare,
- Bridge tolls,
- $1.00 per gallon gas tax increase,
- Nodal development only on major bus routes at higher densities (26),
- Bus rapid transit system with exclusive right-of-way on BRT routes, and
- Existing and committed projects roadway network.

Alternative Plan Concepts and Strategies Table

This table shows the strategies contained within each alternative plan concept.
Descriptions of the plan concepts and definitions of strategies are provided in the accompanying text.

Alternative Plan Concepts

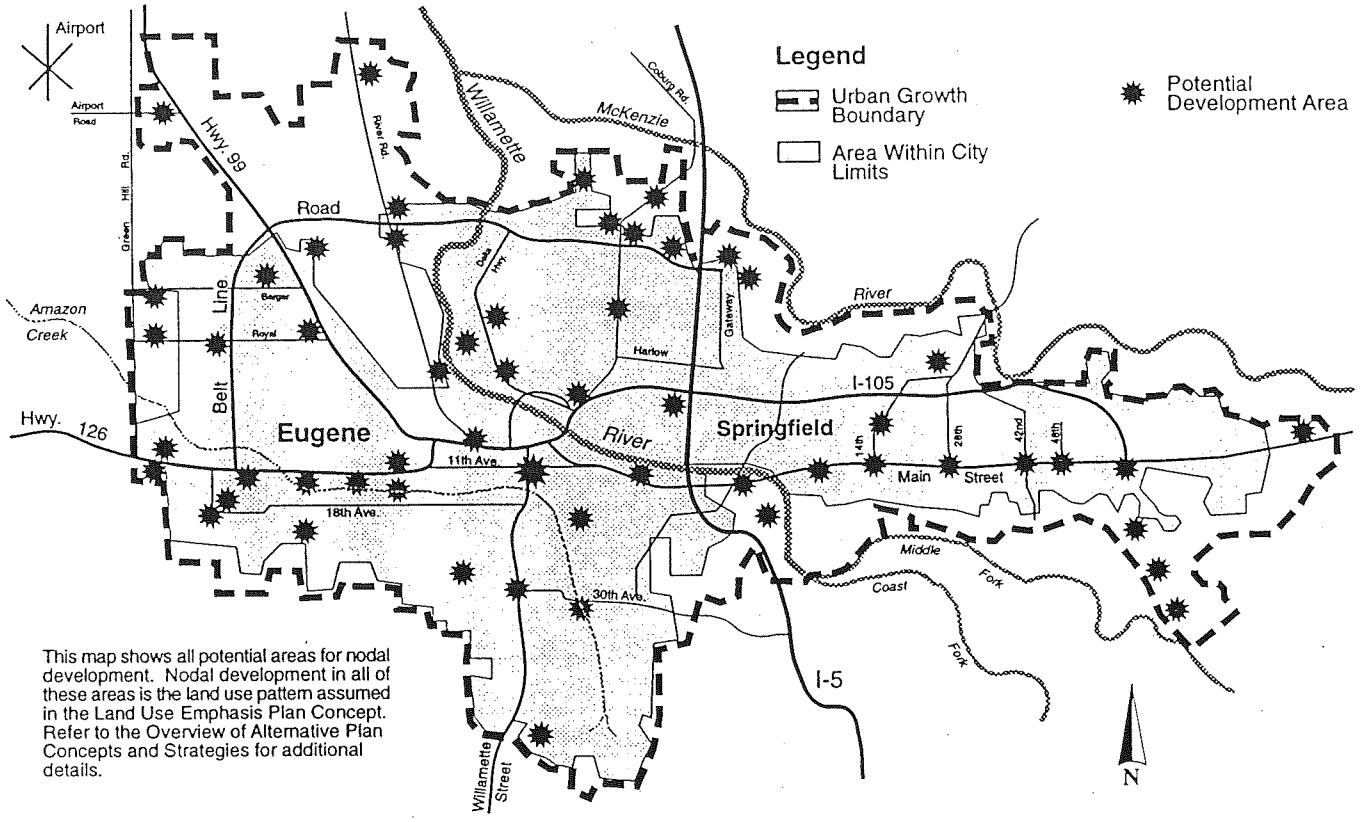
Strategies

	Base Case	Demand Management Emphasis	Land Use Emphasis	System Changes Emphasis	Equal Emphasis	TPR VMT Goal Compliance
Transportation Demand Management Strategies						
Voluntary Programs	X	X	X	X	X	X
Pricing Measures:						
Increased Parking Fees in Central Eugene		X	X	X	X	X
Reduced Transit Fare		X			X	X
Bridge Tolls						X
Gas Tax		X				X
Land Use Measures						
Existing Land Use Patterns	X					
Nodal Development Land Use Patterns:						
In All Potential Areas			X			
Only in New Growth Areas		X		X		
Only in Central Areas					X	
Only on Major Bus Routes						X
Transportation System Improvements						
Transit Systems						
Base Transit System	X					
Enhanced Transit System		X	X			
Bus Rapid Transit (BRT) System				X	X	X[E]
Roadway Networks						
Existing and Committed Projects Network	X	X				X
Committed and Planned Projects Network			X	X	X	

E=This BRT system includes exclusive right-of-way (dedicated lanes) on BRT routes.

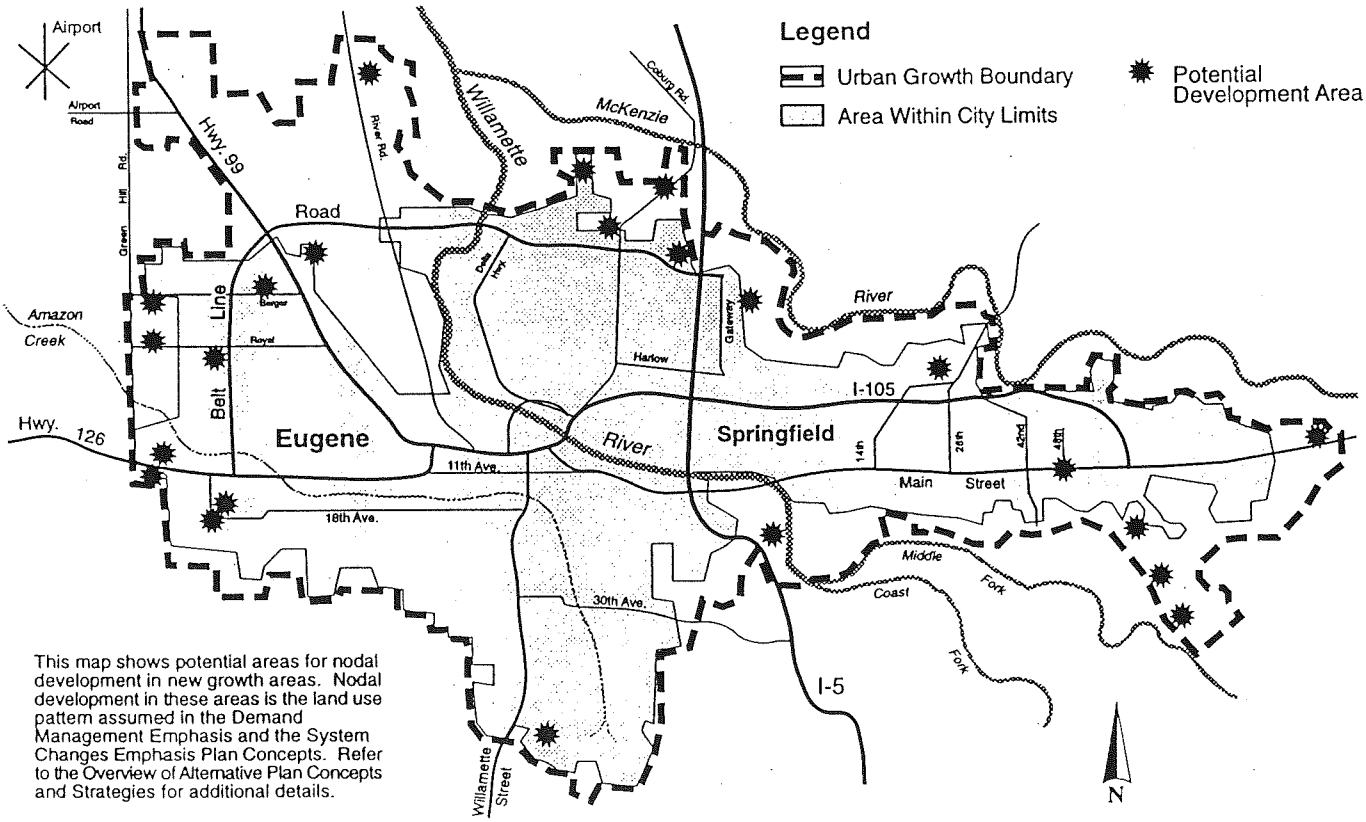
Nodal Development Land Use Patterns - Options

Nodal Development in All potential Areas - Map 1



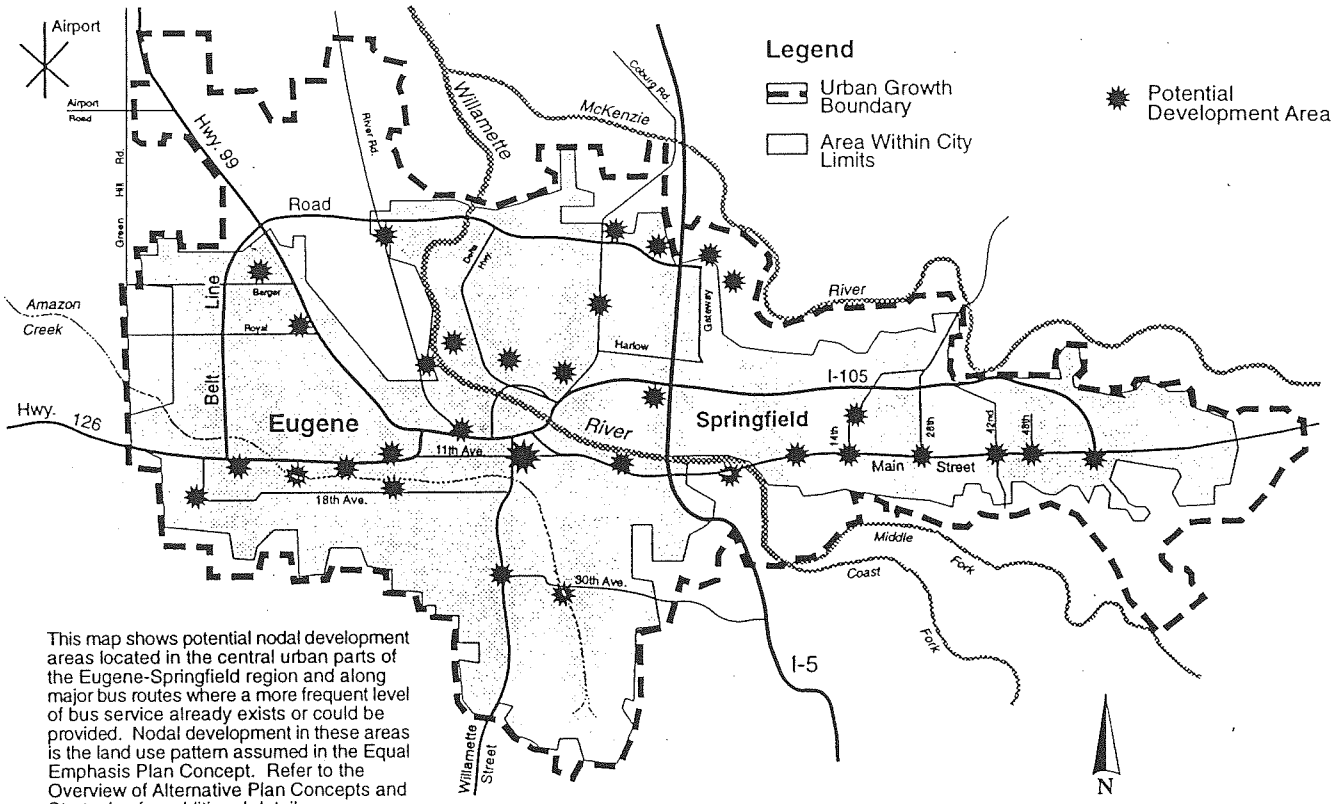
This map shows all potential areas for nodal development. Nodal development in all of these areas is the land use pattern assumed in the Land Use Emphasis Plan Concept. Refer to the Overview of Alternative Plan Concepts and Strategies for additional details.

Nodal Development Only in New Growth Areas - Map 2



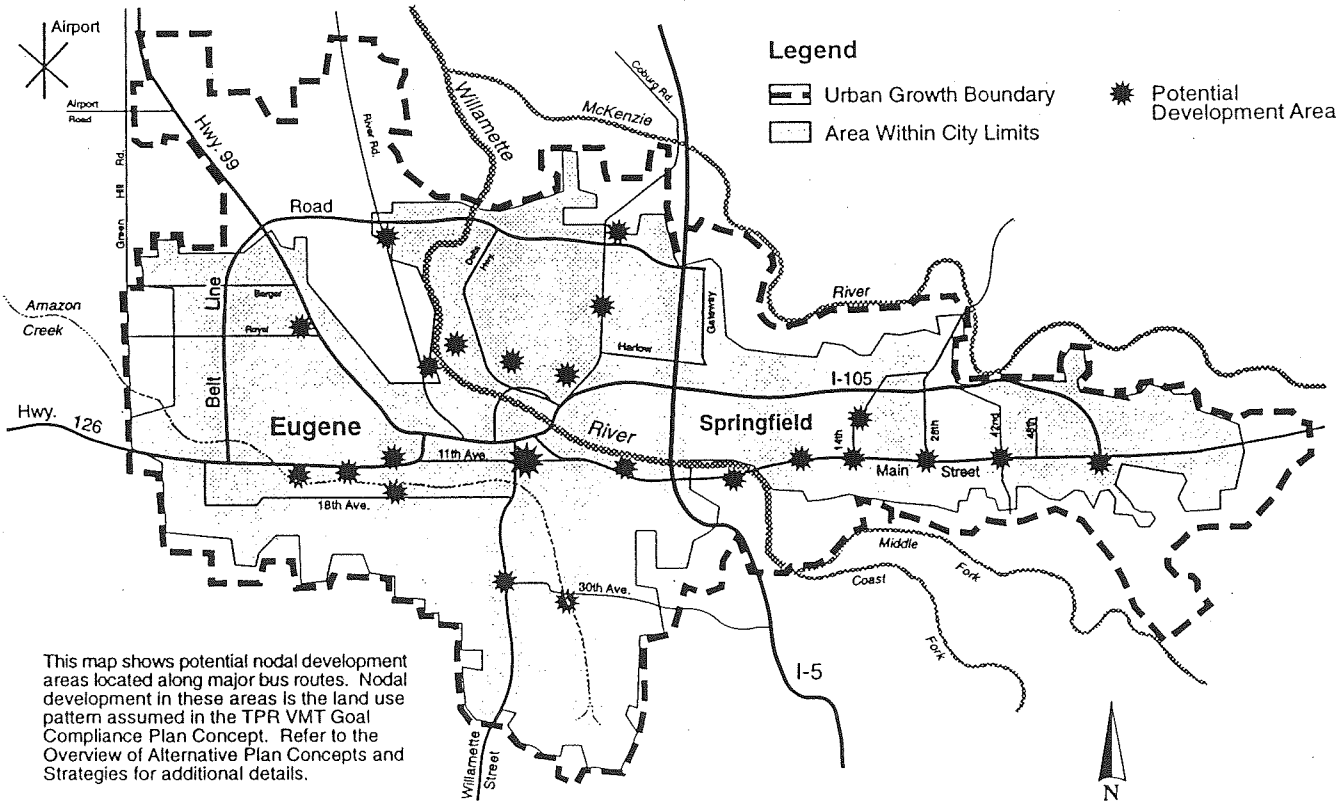
This map shows potential areas for nodal development in new growth areas. Nodal development in these areas is the land use pattern assumed in the Demand Management Emphasis and the System Changes Emphasis Plan Concepts. Refer to the Overview of Alternative Plan Concepts and Strategies for additional details.

Nodal Development Only in Central Areas - Map 3

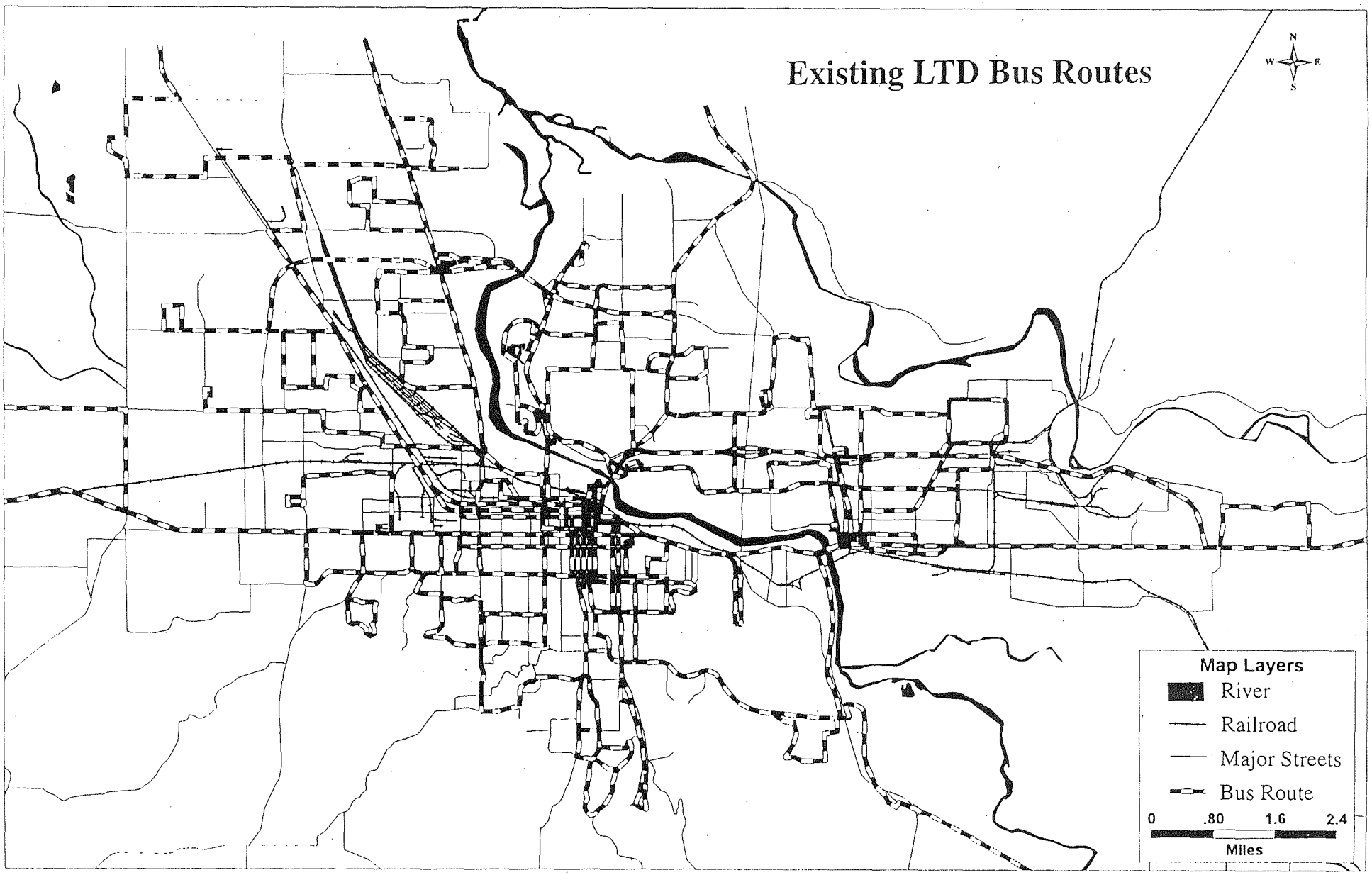


This map shows potential nodal development areas located in the central urban parts of the Eugene-Springfield region and along major bus routes where a more frequent level of bus service already exists or could be provided. Nodal development in these areas is the land use pattern assumed in the Equal Emphasis Plan Concept. Refer to the Overview of Alternative Plan Concepts and Strategies for additional details.

Nodal Development Only on Major Bus Routes - Map 4



This map shows potential nodal development areas located along major bus routes. Nodal development in these areas is the land use pattern assumed in the TPR VMT Goal Compliance Plan Concept. Refer to the Overview of Alternative Plan Concepts and Strategies for additional details.

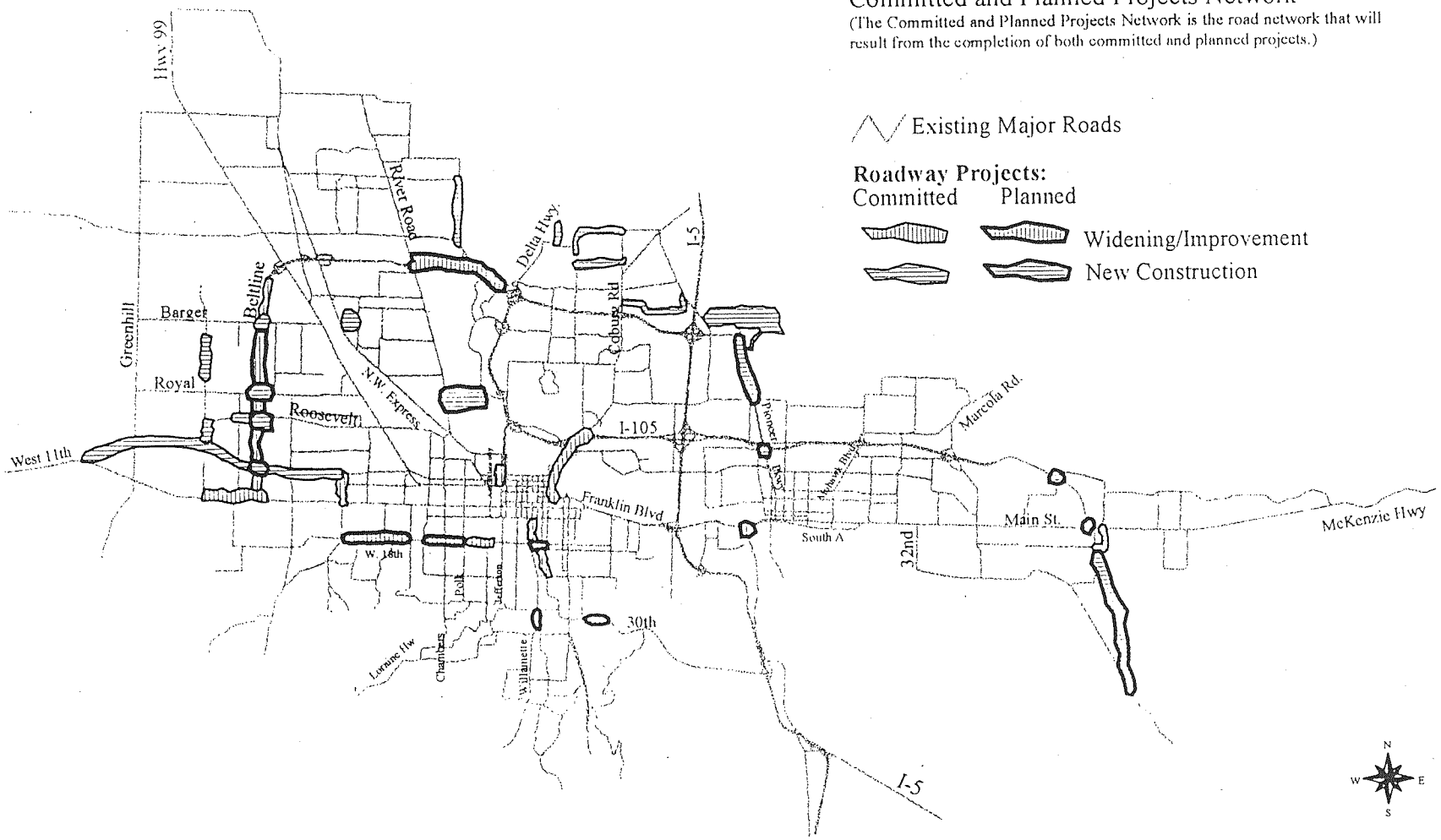


August 19, 1996

Eugene-Springfield

Committed and Planned Projects Network

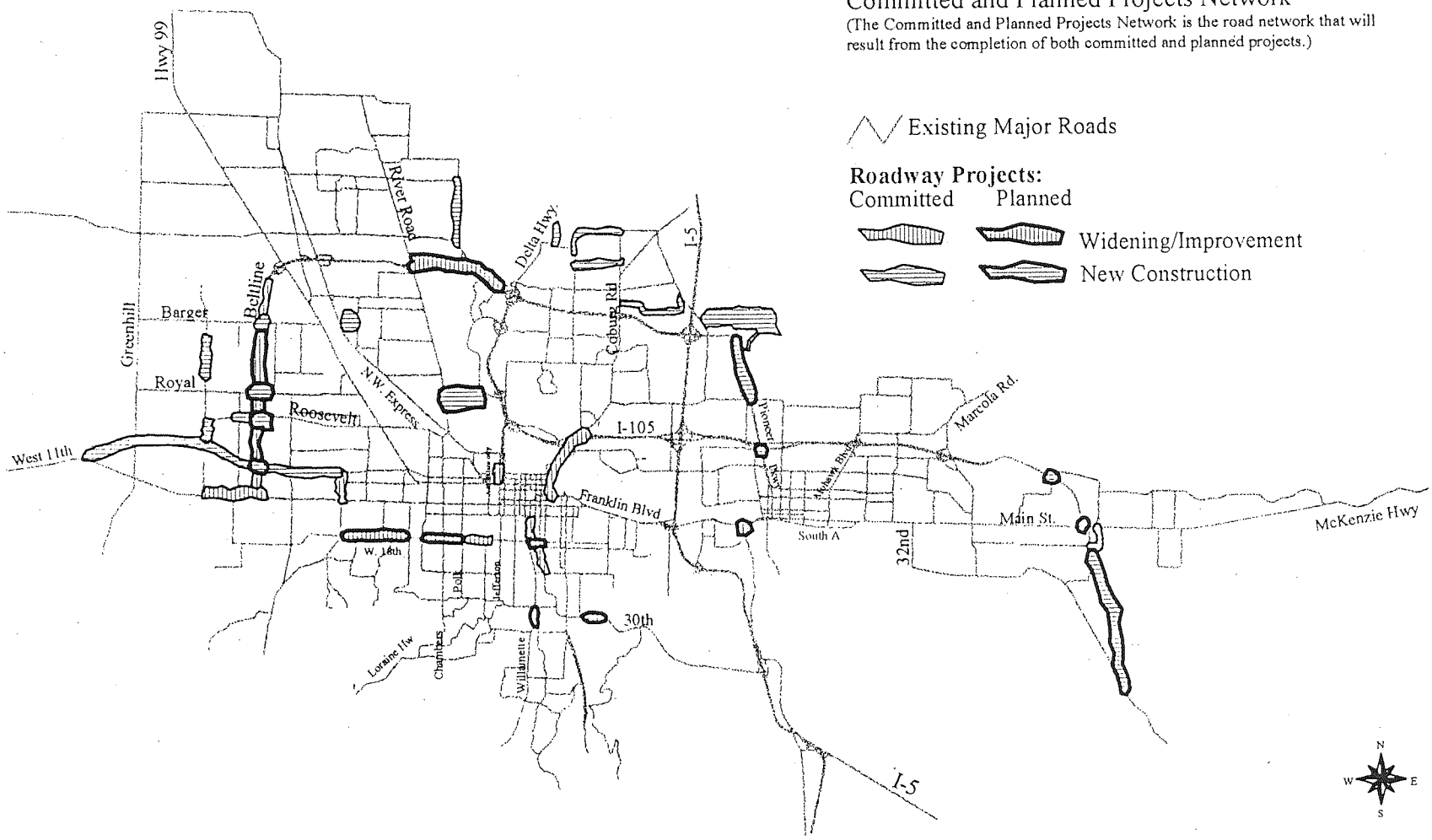
(The Committed and Planned Projects Network is the road network that will result from the completion of both committed and planned projects.)



Eugene-Springfield

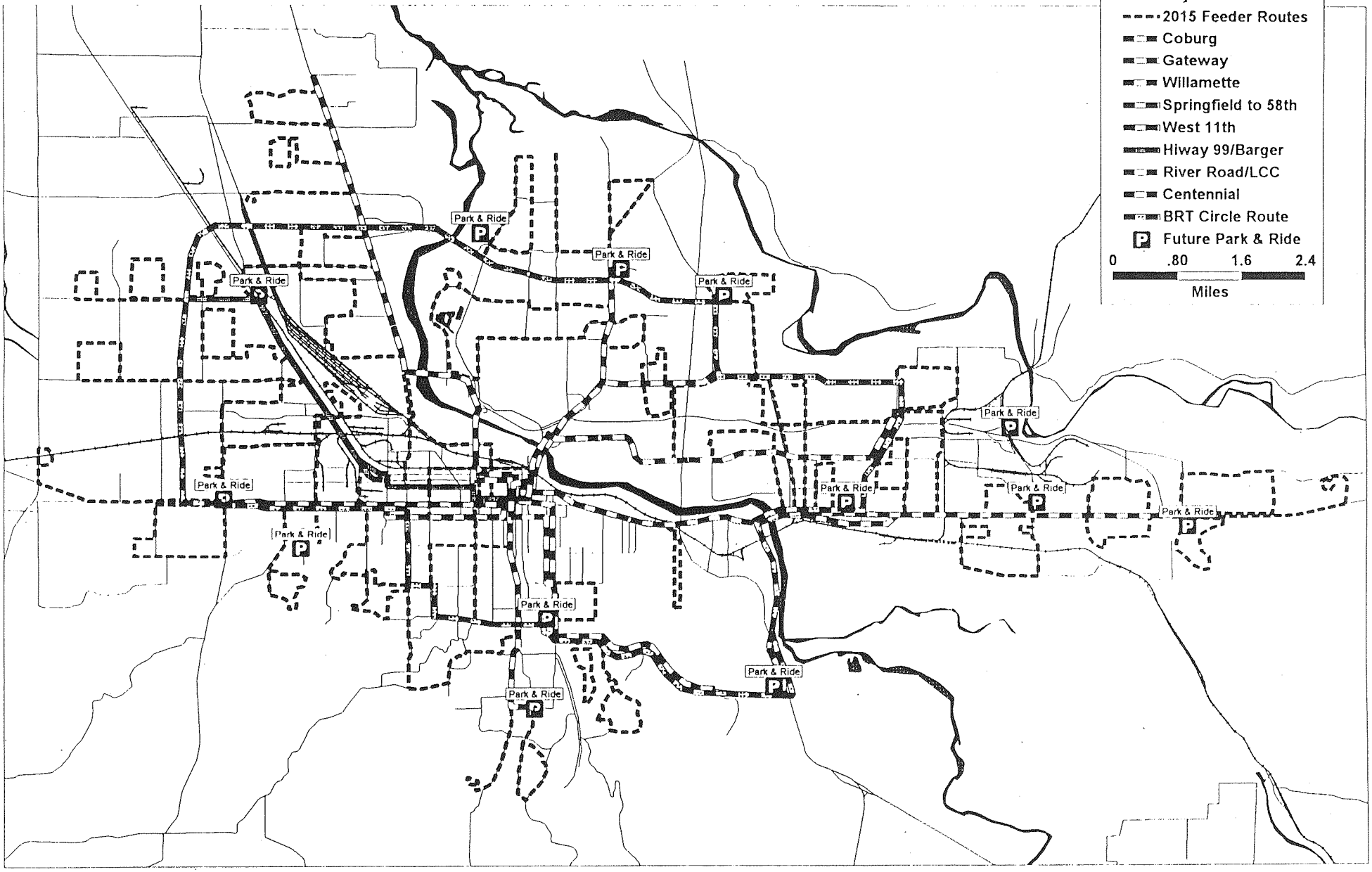
Committed and Planned Projects Network

(The Committed and Planned Projects Network is the road network that will result from the completion of both committed and planned projects.)



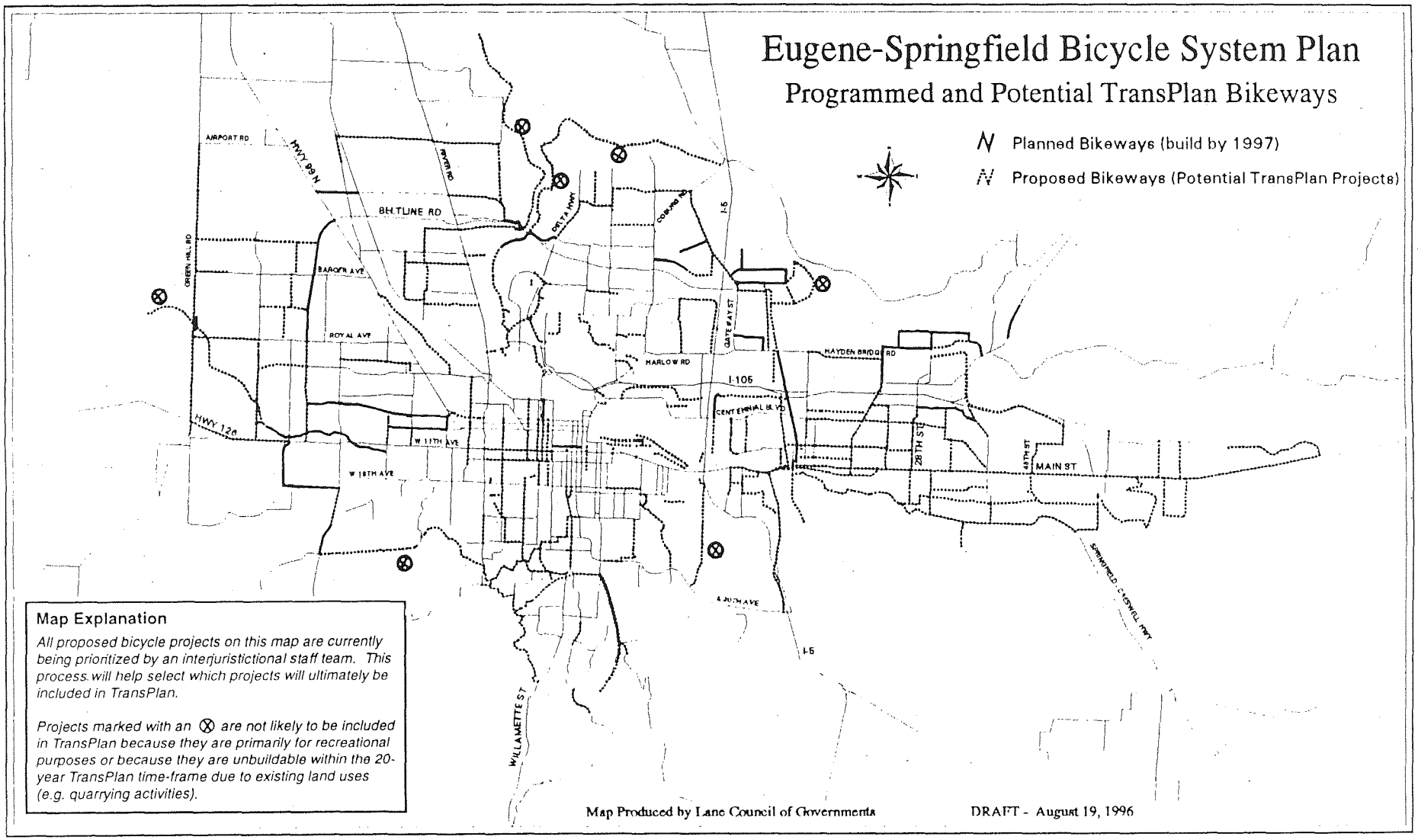
Lane Transit District
Year 2015 Bus Rapid Transit Corridors

Eugene- Springfield



Eugene-Springfield Bicycle System Plan

Programmed and Potential TransPlan Bikeways



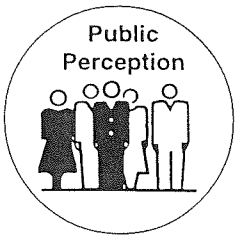
Map Explanation

All proposed bicycle projects on this map are currently being prioritized by an interjuristictional staff team. This process will help select which projects will ultimately be included in TransPlan.

Projects marked with an ⊗ are not likely to be included in TransPlan because they are primarily for recreational purposes or because they are unbuildable within the 20-year TransPlan time-frame due to existing land uses (e.g. quarrying activities).

Map Produced by Lane Council of Governments

DRAFT - August 19, 1996



Public Perceptions

Summary of Public Perceptions

Public Perceptions

- The *TransPlan* update public involvement program was developed in several phases.

    - Scoping and Issues Identification (completed)
    - Alternatives Development (completed)
    - Alternatives Evaluation and Draft Plan Direction (currently underway)
    - Plan Review and Adoption (upcoming)

- A May 1996 survey of residents showed the community's response to transportation issues, possible solutions, and reactions to several strategies under consideration.

- Respondents identified major transportation issues, ideas on possible solutions, and reactions to a set of strategies organized into:

    Land Use Measures

    - Overall, respondents were in favor of nodal development.

    Transportation Demand Management Measures

    - In general, respondents were in favor of encouraging the use of alternative modes of travel.

    Transportation System Improvements.

    - Respondents offered suggestions about a variety of street, transit, bicycle, and pedestrian system improvements.

- In general, there was community support for:

    - Nodal development for some areas of the region,
    - Continuing existing voluntary TDM efforts, and
    - A range of system improvements.

Summary of Public Perception

Overview of *TransPlan* update Public Involvement

The *TransPlan* update public involvement program was developed in several phases. Each phase consisted of a unique focus and different desired outcomes.

- The first phase, Scoping and Issues Identification, focused on publicizing the *TransPlan* update and identifying citizens' transportation issues, needs, and concerns.
- The second phase, Alternatives Development, focused on establishing the stakeholder process and reviewing alternative strategies.
- The third and current phase, Alternatives Evaluation and Draft Plan Direction, focuses on working with stakeholders, jurisdictional staff, and elected and appointed officials to evaluate the alternative plan concepts, and obtain draft plan direction.
- The fourth phase, Plan Review and Adoption, will facilitate public, jurisdictional staff, and elected and appointed officials' review and revision of the draft plan and adoption of the final plan.

The *TransPlan* update public involvement program is using a variety of public involvement techniques, both innovative and conventional, in the effort to involve a broad spectrum of citizens. The stakeholder process, which includes symposiums, task forces, and focus committees, constitutes the core of the public involvement program and is the primary method of achieving sustained public involvement. Techniques used to reach the broader general public include community workshops, speakers bureau, special events, focus groups, surveys, newsletters, public displays, media coverage, brochures, cable television video broadcasts, and public hearings.

One of the most recent public involvement efforts was the 1996 Community Survey, which was designed to provide input from the general public to support the evaluation of alternatives and development of draft plan direction. The remainder of this summary focuses on results of that survey.

Results of 1996 Community Survey

In May 1996, Williams Research conducted a survey of 429 residents. The purpose was to get a statistically valid response from the community regarding transportation issues, possible solutions, and reactions to several strategies under consideration. The survey was developed using results from a series of residential focus groups conducted in December 1995.

Respondents identified major transportation issues, ideas on possible solutions, and reactions to a set of strategies organized into Land Use Measures, Transportation Demand Management Measures, and Transportation System Improvements.

Survey respondents also rated the seriousness of area transportation problems. The results are presented in Figure 1, Seriousness of Transportation Problems. While the average seriousness score of 3.1 is equivalent to just higher than "somewhat serious," one-third (33%) viewed problems as "extremely serious" or "very serious." As compared to 20 percent who judged them to be less serious currently.

The survey results are presented in terms of the Land Use Measurements/ Transportation Demand Management/Transportation System Improvements Triangle. A summary of the results of the community survey are included in Figure 2, A Summary of the Community Perceptions on Alternative Transportation Strategies. Community suggestions on how to solve transportation problems focused on the street system, but are followed closely by transit solutions and encouraging the use of alternative modes.

Land Use Measures

Reactions to nodal development were favorable overall. Over ¾ of the respondents were in favor of nodal development for at least some areas of Eugene-Springfield. Over half were interested in living in such an area. Support was greatest for the highest level of implementation: nodal developments in "all areas with potential."

Reasons for supporting this concept included the "convenience" associated with "mixed-use, self-contained" development; "less use of cars" (and "less congestion"); "less travel time;" and an "increased sense of community."

Based on rating a series of perception statements, nodal developments were strongly expected to promote a sense of community, increase the amount that people walk and use bikes, provide pleasant places to live, and reduce traffic congestion in the area.

Transportation Demand Management

In general, the survey indicated a broad level of support for encouraging the use of alternative modes. Ninety-two percent of the respondents were in favor of encouraging the use of alternative modes.

Voluntary Programs

The vast majority of area residents favored offering five voluntary TDM programs: flexible work hours/telecommuting, carpool parking/incentives, Guaranteed Ride Home, the Employer Bus Pass program, and the LTD carpool program. Most respondents felt they would be likely to use these programs, if available where they worked.

Mandatory Programs

Opinions were almost equally divided on whether or not large employers should be required to offer TDM programs to their employees. In contrast, pricing measures were opposed by the great majority of the community. Area residents were generally not in favor of "higher parking fees;" "increased gasoline taxes, emissions tax, registration, or license fees;" or "tolls on busy roads and bridges."

Transportation System Improvements

Survey respondents were asked questions about a variety of street, transit, bicycle, and pedestrian system improvements. The majority of area residents felt that "improved signal time" (83%) and "additional bridges over the Willamette River" (73%) were "very important" to improving the ease of getting around Eugene-Springfield. Also quite important were "more freeways or expressways" and "adding lanes to major streets." Opinions were evenly divided on the importance of "carpool lanes on busy streets."

"More direct connections, less transferring" (63%) were perceived as the most important changes that would encourage increased transit ridership. "More frequent service" (56%) and "lighting at bus stops" were also viewed as relatively important.

Eleven possible changes to bicycle facilities were considered by each respondent. The strategies considered most important to encouraging increased bicycle use were "more secure bike parking" (50%), improved continuity of bike ways (49%), and "more off-street bike paths." These were closely followed by "more bike bridges over busy streets," "more lighting on bike paths," "increased security patrols on bike ways," and "more bike routes on less busy streets."

"Pedestrian bridges over busy streets" (51%) and "better lighting along paths and sidewalks" (50%) were viewed as most important of a series of eight potential changes to encourage community members to walk more often. "More off-street pedestrian paths" were also viewed as quite important.

Conclusions

The results of the community survey provided valuable insights on the public's perception of the various strategies being considered. In general, there is support in the community for:

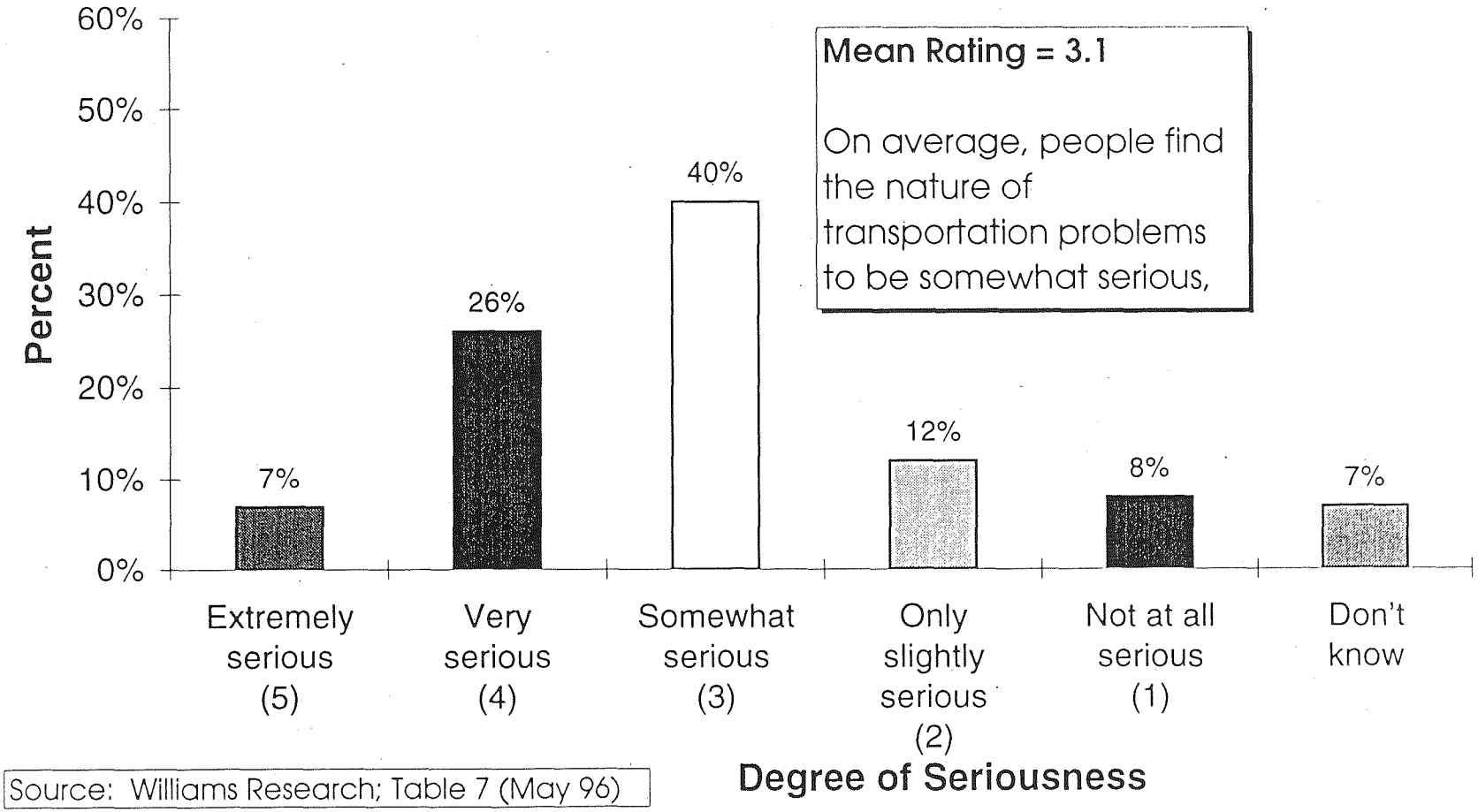
- Nodal development for some areas of the region,
- Continuing existing voluntary TDM efforts, and
- A range of system improvements including:
  - Improved signal timing,
  - Additional bridges over the Willamette River,

- More direct transit connections and less transferring,
- Improved continuity of bike ways,
- More secure bike parking,
- More off-street bike paths, and
- Better lighting along paths and sidewalks.

Figure 1

Seriousness of Transportation Problems

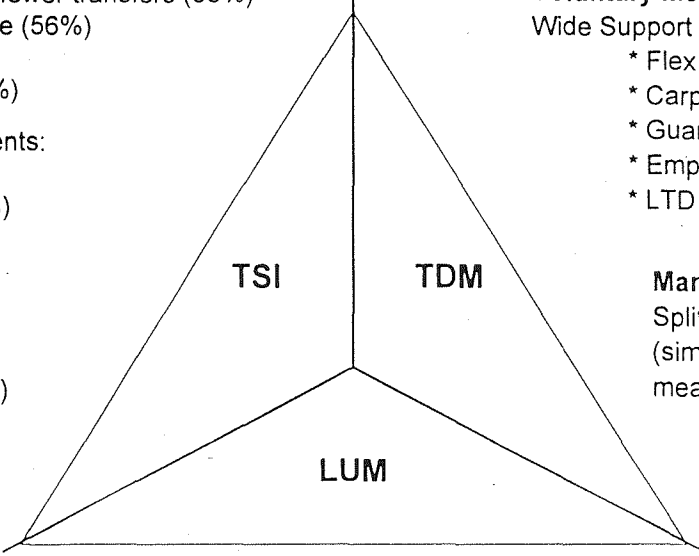
Base = 495 recruited respondents



Source: Williams Research; Table 7 (May 96)

Figure 2

Summary of Community Perceptions on Alternative Transportation Strategies (source: 1996 Community Survey)



Street System
Most Important Street System Improvements
* Improved signal timing (83%)
* Additional bridges over the Willamette (73%)
* More expressways (57%)
* Added lanes on major streets (59%)
* Carpool lanes (53%)

Transit System
Most Important Transit System Improvements:
* More direct routing / fewer transfers (63%)
* More frequent service (56%)
* Lighted stops (54%)
* Sheltered stops (50%)

Bicycle System
Most Important Bicycle System Improvements:
* More secure bike parking (50%)
* More continuous bike ways (49%)

Pedestrian System
Most Important Pedestrian System Improvements:
* Pedestrian bridges (51%)
* Better lighting of sidewalks and paths (50%)

Note on System Improvement Responses:
Percentages refer to respondents indicating the improvement as *very* or *somewhat* important.

A total of 92% were in favor of encouraging the use of alternative modes.

Primary Reasons for Supporting Alternative Modes Use
* Less Pollution/benefits the environment
* Reduces Traffic

Voluntary Measures
Wide Support for Voluntary TDM Measures including:
* Flex hours/telecommuting
* Carpool parking/incentives
* Guaranteed Ride Home program
* Employer Bus Pass Program
* LTD Carpool program

Mandatory Measures
Split support on mandatory measures for large employers (similar levels strongly agreed and disagreed with these measures)

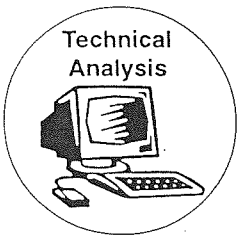
Pricing
In general, higher parking fees, gas taxes and tolls were equally opposed by the majority (75-80%) of the community.

A total of 76% were in favor of Nodal Development in some areas.

Reasons for favoring nodal development:
* Mixed use is self-contained/more convenient
* Less congestion/use of cars
* Less travel time required

A total of 55% were very or somewhat interested in living in a Nodal Development.

There was general agreement with the following statements:
Nodal Development would:
* Promote a sense of community;
* Increase the amount that people walk and use bikes; and
* Provide a pleasant place to live



Technical Analysis

Summary of Technical Analysis

Technical Analysis

Introduction

The technical analysis:

- Provides a process for determining the relative significance of the alternatives and the desirability of one alternative over another,
- Provides decision makers with an evaluation of the impacts of each proposed alternative, tradeoffs and areas of uncertainty, and
- Serves to identify areas for further refinement. This evaluation process will ultimately provide the basis for the development of a draft plan.

- The evaluation is structured around a simplifying framework that includes a set of key questions and a set of specific performance measures.

Conclusions

The evaluation shows that, compared to the Base Case, implementing a more integrated set of strategies can result in:

- Fewer vehicle miles traveled (VMT) system-wide;
- Fewer miles of the transportation system experiencing congestion;
- With Travel Demand Management in place, decreased drive-alone auto trips and increased shared auto trips; and,
- An increase in shorter trip lengths, providing the opportunity for use of alternative modes.
- A key factor affecting financial feasibility is the presence of state gas tax increases.

Additional Analysis as Part of the Draft Plan Process

At this point in the process, where broad alternatives are being considered, the evaluation is necessarily limited. Three key issues will be refined once direction from the draft plan is established. These are:

- Financial Feasibility
- Community Impacts and Issues of Equity
- Air Quality

Summary of Technical Analysis

This section summarizes the evaluation of the alternative plan concepts, presents the evaluation framework, model results, financial analysis, and conclusions drawn from the technical analysis.

Introduction

The purpose of the technical analysis is three-fold:

- It provides a process for determining the relative significance of the alternatives and the desirability of one alternative over another,
- It provides decision makers with an evaluation of the impacts of each proposed alternative, tradeoffs and areas of uncertainty, and
- The evaluation serves to identify areas for further refinement. This evaluation process will ultimately provide the basis for the development of a draft plan.

What Is The Evaluation?

The evaluation is accomplished, in part, by using the travel forecasting model with a set of performance measures. The travel forecasting model is a complex computer program comprised of a diverse collection of land use, population, employment, travel behavior and transportation system information. In short, the model attempts to mirror as closely as possible the real world of land use development patterns and travel behavior and their interactions on the Eugene-Springfield's transportation system. It can show existing conditions, potential trouble spots and can help to illustrate the impacts of a future scenario, based upon the latest information on how the region is growing.

How Does The Evaluation Process Work?

To be effective, the evaluation is structured around a simplifying framework that includes:

- A set of **key questions** designed to address major policy areas; and
- A set of specific **performance measures**, designed to provide useful information on differences among the alternatives and respond to the key questions

Key Questions

In the context of an urban region such as Eugene-Springfield, decisions on public investments and policy inevitably involve multiple objectives and complex, inter-related systems. This presents a challenge when evaluating regional transportation-land use alternatives. To maintain an effective and useful structure throughout this process, a

set of key questions is being addressed. This framework also represents key areas of policy focus. The key questions are:

- Is the concept technically sound?
  - Is it efficient?
    Does it minimize trip length, frequency, and time for users, optimize the cost effectiveness and convenience of all transportation options and does it meet or exceed appropriate minimum service standards and user needs?
  - Is it effective?
    Does it provide for efficiency in a useful and serviceable way? What are the joint land use-transportation impacts and the transportation system impacts? What is the potential for ease of reaching a range of destinations?
- Is it environmentally sensitive?
  How does the alternative impact air and water quality? What are the impacts upon natural areas and open space?
- Is it financially feasible?
  Is the alternative affordable? What are the capital, operating, maintenance, and preservation costs?
- Is it equitable?
  How does it impact different community members and groups?

Performance Measures

A diverse list of specific performance measures are used to provide detailed information on how each alternative performs. These measures answer the key questions and were developed from a preliminary listing of several dozen potential measures. They underwent both inter-jurisdictional staff and elected official review and refinement.

The performance measures are the foundation of the evaluation framework. A range of technical data is generated from the travel forecasting model. Information from other sources is used as well, including:

- Geographic Information Systems,
- Air Quality forecasting model,
- Estimates of transportation costs and revenues,
- Fuel consumption model, and
- Qualitative assessments of impacts on community members and groups.

The results are presented in terms of the following performance measures:

- *Daily fuel use* - an efficiency measure. An objective for each alternative is to minimize fuel use. In general, a combination of pricing and land use measures have the most affect on fuel use.

- *Congested miles of travel* - an efficiency measure. An objective for each alternative is to minimize congested mile of travel. Figure 1 illustrates the relative levels of

congestion for each alternative. In every future alternative, congestion is higher than existing conditions, ranging from 2 to 4 times current levels. In general, additional system improvements (both roadway and transit) can have a significant impact on minimizing congestion.

- *Daily Vehicle Miles of Travel per capita* - a measure of effectiveness. An objective for each alternative is to reduce VMT per capita. Figure 2 illustrates the relative VMT per capita for each alternative. The Transportation Planning Rule requires no increase in VMT per capita over 10 years and a 10 percent reduction over 20 years. Locally, the ten-year goal is 15.62 VMT per capita; the 20-year goal is 14.06 VMT per capita.

- *Percent of person trips under 1 mile* - a measure of effectiveness. An objective for each alternative is to increase the percentage of person trips under 1 mile as this provides more opportunity for use of alternative modes.

- *Mode choice* - an effectiveness measure. This measure looks at the level of choice for five modes: walk, bike, bus, drive-alone auto, and shared ride auto. An objective for each alternative is to reduce drive-alone auto trips while increasing the number of trips taken by other modes. Given the relatively small share of trips achieved by non-auto modes, it is useful to look at the change from the Base Case. Figure 3 illustrates the percentage difference from the Base Case for each mode. It should also be noted that, given limitations of the model, the actual split between the non-motorized modes (walk and bike) could vary. It is useful to consider the combination of walk and bike trips when reviewing Table 1.

- *Vehicle emissions* - a measure of environmental feasibility. An objective of each alternative is to reduce vehicle emissions. Specifically, the draft plan will be subject to a more formal process to determine conformity with federal and state air quality standards.

- *Costs and revenues associated with each alternative* - a measure of financial feasibility. An objective of each alternative would be to reduce costs, maximize revenues, and minimize (ultimately eliminate) and shortfall. The Appendix at the end of this section provides a more in-depth discussion of estimates of costs and revenues.

Technical Analysis Results

Table 1 presents results of the evaluation of alternative plan concepts. Figures 1 through 3 illustrate some of the key results. In review of this material, the following conclusions can be drawn for each alternative:

Base Case

Implementation of the Base Case results in the following:

- Lower levels of alternative modes use than currently exists,
- The highest level of VMT per capita,
- The highest levels of congestion,
- The highest vehicle emissions and fuel use, and
- The fewest short trips.

Demand Management Emphasis

This alternative achieves the lowest VMT per capita after of the TPR compliance alternative. This is due primarily to the pricing strategies included. Because this alternative is limited to the existing and committed roadway network (as opposed to the more extensive set of planned projects) it also has the highest percentage of congested miles after the Base Case. Additional revenue is available in this alternative as a result of the gas tax and increased parking fees.

Land Use Emphasis

This alternative is one of the highest in terms of short trips (person trips less than 1 mile). This is one reason for its higher levels of walk and bike trips. Because nodes are dispersed, VMT per capita still increases over the 20 year planning horizon. It also has relatively low levels of congestion.

System Changes Emphasis

This alternative represents an improvement over the Base Case in terms of lower drive-alone auto trips. VMT per capita increases over existing conditions but is significantly lower than the Base Case. Congestion is improved over the Base Case primarily as a result of additional roadway projects and Bus Rapid Transit.

Equal Emphasis

This alternative achieves a slight decrease in VMT per capita without fuel taxes or road pricing. This is primarily due to Bus Rapid Transit and nodal development concentrated

in central areas. Other than the TPR Compliance alternative, this alternative has the highest percentage of overall alternative mode use, the lowest levels of congestion, and the lowest levels of vehicle emissions.

TPR VMT Goal Compliance

This alternative was developed explicitly to achieve the VMT targets set forth in the state's Transportation Planning Rule. It achieves the 20-year target (10 percent reduction) with an estimated VMT per capita of 13.78. This represents an 11.8 percent reduction from current VMT per capita. As a result of the extensive use of pricing mechanisms, concentrated levels of development, and exclusive right of way for the Bus Rapid Transit system, this alternative performs better than all the other alternatives.

Conclusions

The evaluation shows that, compared to the Base Case, implementing a more integrated set of strategies can result in:

- Fewer vehicle miles traveled (VMT) system-wide;
- Fewer miles of the transportation system experiencing congestion;
- With Travel Demand Management in place, decreased drive-alone auto trips and increased shared auto trips; and,
- An increase in shorter trip lengths, providing the opportunity for use of alternative modes.

Even with the strategies in place, the Eugene-Springfield region will experience increased congestion, and VMT reduction is difficult to achieve without implementing pricing measures. While the area may have more congestion, the air quality will continue to meet state and federal standards.

The following conclusions can be made on each strategy type:

Nodal Development

The nodal development land use strategy, which builds on concepts already included in *Metro Plan,* helps achieve objectives to increase the percentage of walk, bike, and bus trips and the percentage of trips under one mile. The strategy also helps to reduce congestion and vehicle miles traveled per capita. The nodal development strategy has the greatest impact when the nodal development areas are limited to those located in the central urban areas, along major bus routes, and are developed at higher average densities. This is consistent with the view that compact urban growth supports use of alternative modes and shorter trips.

Pricing Measures

Pricing measures are effective in changing travel behavior and achieving transportation planning objectives particularly when they are combined with land use strategies and improvements in the transportation system. When used alone, pricing measures are not sufficient to avoid decreased mobility and higher levels of congestion. Pricing the use of roads (bridge tolls) has the greatest impact and appears to be necessary to achieve the state's target to reduce VMT per capita by 10 percent. Pricing vehicle use (parking) also has a significant impact even when limited to the central Eugene area. In general, reductions in VMT are only achieved where pricing mechanisms have been introduced. Although the level of public understanding and acceptance of pricing measures is low, they are included in the alternative plan concepts for purposes of comparison and evaluation.

System Improvements

Strategies to improve the transit, roadway, and bicycle/pedestrian elements of the region's transportation system also help achieve the planning objectives. Both an enhanced bus system and a Bus Rapid Transit (BRT) System will significantly increase transit ridership, particularly when combined with demand management measures and nodal development patterns. The greatest impacts in terms of increasing the percentage of bus trips come from establishment of a BRT System. The travel model shows the highest increase in bus ridership with a BRT system that includes exclusive right of way. Improvements to the road system have a positive impact on congestion and support increased use of transit. A combination of TDM (primarily pricing), land use and system improvements has the greatest impact on congestion. Most planned projects identified in the current *TransPlan,* as well as other major new projects, are necessary to support transit improvements and reduce congestion at key points in the road system.

Conclusions on Financial Analysis

The major differences between costs and revenues (i.e., the gap) result from several sources. First, without considering revenues from the proposed pricing measures, the analysis shows that the most significant difference is in the assumptions of state gas tax increases. Without an increase in state gas tax, the gap between costs and revenues ranges between $214 and $355 million over the 20-year planning horizon. With increases in state gas tax (see the Appendix for more information on this assumption), the gap ranges between $80 and 230 million.

At all levels of government a priority exists to operate, maintain and preserve the transportation system at adequate levels and to give those activities priority over modernization (new projects). This becomes an issue when the expected shortfall exceeds the amount estimated for modernization (see Table 2). When the shortfall

exceeds the modernization estimate this signifies that inadequate revenues are estimated to be available for operations, maintenance and preservation. It should also be noted that currently, state gas tax revenues alone are not adequate to cover operation, maintenance, and preservation of the existing system. These revenues are being supplemented by federal forest receipts (through the Metropolitan Urban Roads Partnership), a declining source of revenue.

Other major sources of difference stem from assumptions about the set of roadway projects (either existing and committed or committed and planned) and BRT exclusive right of way (assumed in the TPR alternative only).

Revenues resulting from pricing measures are obviously quite high. There are at least three reasons for this. First, the revenues over 20 years are high because the rates (per gallon, per bridge crossing, etc.) are high, as they were set to affect travel behavior, not raise revenue. Second, if a particular plan scenario containing pricing measures were to be chosen, the revenue estimates assume that the pricing measures would be implemented immediately upon plan adoption. Finally, given limitations in the model, estimates of the actual reaction to pricing measures are limited. For this reason, the estimates of pricing measure revenue likely represent the high end of the possible range.

A cautionary note needs to be made regarding the forecasts of costs and revenues. These forecasts represent a very preliminary estimate of costs and revenues and will likely change with additional analysis and refinement. The results presented here provide a reasonable order of magnitude estimate.

Additional Analysis as Part of the Draft Plan Process

At this point in the process, where broad alternatives are being considered, the evaluation is necessarily limited. Three key issues will be refined once direction from the draft plan is established. These are:

- Financial Feasibility
  To comply with federal requirements, staff will complete a financial analysis for the draft *TransPlan*. In short, it needs to be shown that funds are reasonably expected to be available for transportation needs that have been identified in *TransPlan*. These financial needs include all costs associated with preservation of the existing system and costs of operation and maintenance. The analysis will result in a "fiscally constrained" plan that assures that what is planned is affordable.

- Community Impacts and Issues of Equity
  Assessing how changes impact different community members and groups is an important part of the evaluation process. Neighborhood impacts is one area of focus. Designing the regional traffic flow so that cut-through traffic on residential streets is discouraged, providing for safe pedestrian and bicycle routes and areas,

and preserving the character of the region's neighborhoods as new development occurs over time are among the neighborhood impacts to be addressed. Many of these impacts affect a community's quality of life and will be addressed through a more qualitative analysis.

- Air Quality
  Once direction on the draft plan is established and a final set of financially constrained projects are identified, a more comprehensive assessment will be made to determine the plan's conformity with state and federal air quality standards.

Appendix - Summary of Financial Analysis

The Fiscal Constraint Requirement

Financial constraint is a requirement outlined in the federal legislation. Financial planning is further specified in the federal rules on metropolitan planning. Essentially, these regulations bind *TransPlan* to the limits of the area's long-term financial capacity.

Three requirements are articulated in the federal regulations which define the scope of the analysis:

1. Estimated revenue by existing source must be determined and any shortfalls identified,
2. Proposed new revenues to cover shortfalls must be identified including a strategy for their availability, and
3. Existing and proposed revenues must cover all forecast capital, and *operating and maintenance* costs.

Basically, we must show that funds are reasonably expected to be available for transportation needs identified in the plan or TIP including costs required to preserve, operate, and maintain the system over the planning period. While the assessment must be done for both the plan and TIP, requirements are less stringent for the plan.

Methodology and Assumptions

Costs

The process used for estimating future transportation costs was intended to make use of the work done for the Oregon Roads Finance Study (ORFS) as described in the 1993 Phase II Technical Report (Sept. 1992). In general, ORFS unit costs were applied to estimates of the local system size based on inventories conducted by the three jurisdictions (Lane County, Eugene, and Springfield). Costs are divided into three categories: operations and maintenance, preservation, and modernization.

Operations and maintenance (O&M) generally includes activities necessary to keep the transportation system safe and in repair. Preservation activities generally extend the useful life of a facility and are larger in cost and scope than O&M. Modernization consists of major capital improvements that usually either bring facilities to urban standards or add capacity.

The operations, maintenance, and preservation costs of maintaining the transportation system at current levels (90% fair or better) were estimated. The cost of two system modernization scenarios less assessable revenues is reported.

Revenues

Federal and state revenue projections were provided by the Oregon Department of Transportation in a document titled *Financial Assumptions for the Development of Metropolitan Transportation Plans*. In that document, future inflation was assumed to be 3.7 percent per year. Since this analysis is in 1995 dollars, the ODOT revenue forecasts were discounted using that inflation rate.

As part of Oregon Department of Transportation's recommended revenue scenario, it is assumed that the state gas tax would increase an average of 1.25¢ per gallon per year, and that Transportation Planning Rule requirements would be met ("1+1+1+2...w/TPR"). It is this revenue scenario, adjusted for inflation, that is used for the policy scenario that does in fact yield TPR compliance (with state gas tax increase). The same revenue scenario with the TPR assumption removed, is used for all other policy scenarios assuming a state gas tax increase ("1+1+1+2..."). For the scenarios that did not include a state gas tax increase, the ODOT revenue scenarios *Current Law* and *Current Law with TPR* were used.

Lane County revenues, including federal forest receipts (and road partnership funds) and state highway trust funds allocated to Lane County were projected by Lane County. Those revenues were discounted for inflation where appropriate.

Pricing Revenues

In the appropriate scenarios, pricing strategies were assumed to take effect upon adoption of the plan and remain in effect throughout the planning period. Revenues are estimated for 1996 and 2015 and an average of those revenues was used to calculate total revenues over the planning period.

Increased Parking Fees

The actual fee and parking area varies among the scenarios. These revenues are a total of all revenues collected for meters and lots. Half of total parking revenue is assumed to be public.

Local Gas Tax Increase

Total daily VMT is calculated for the base year and 2015. The average vehicle fuel efficiency is assumed to be 20 mpg to calculate average $/mile. Annual VMT is multiplied by the derived $/gallon to get estimated fuel tax revenue.

Bridge Tolls

Total average weekday bridge crossings are estimated for both the base year and 2015. An average of these two numbers is used to calculate total toll revenue. A $0.50

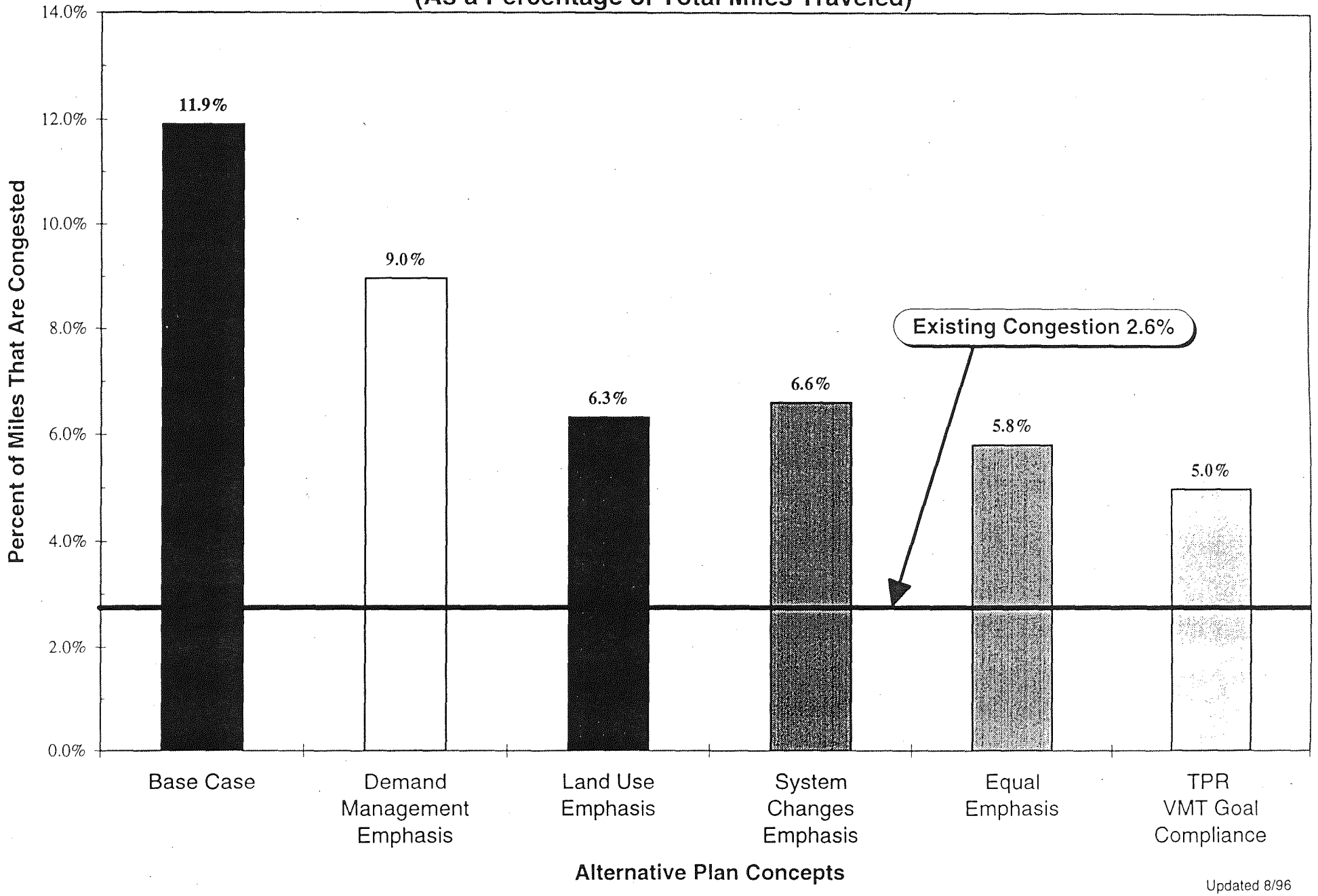
toll is applied to all crossings to get estimated total revenue. This pricing strategy only applies in the TPR scenario.

Reduced Transit Fares

Average weekday ridership is estimated for both the base year and 2015. The average ridership is multiplied by the average fare (currently estimated to be $.50, reduced to $0.25 in the future for this strategy). Ridership is multiplied by fare to get total revenues for the planning period.

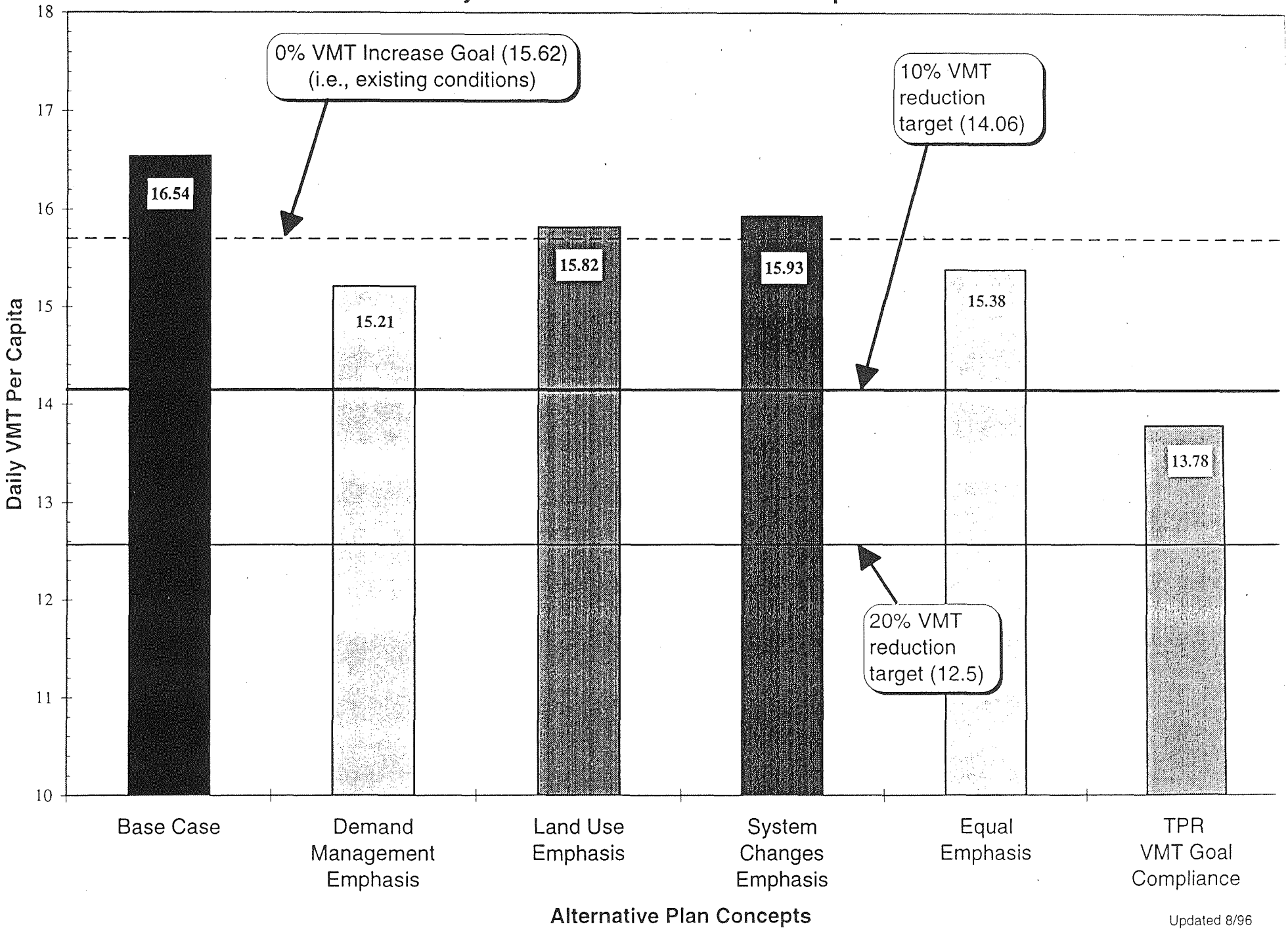
Table 2 presents a more detailed analysis of future transportation costs and revenues.

Figure 1
Congested Miles of Travel
(As a Percentage of Total Miles Traveled)



Updated 8/96

Figure 2
Daily Vehicle Miles of Travel Per Capita



Updated 8/96

Figure 3
Effect of Alternative Plan Concepts on Mode Choice
(Percentage change from the 2015 base case)

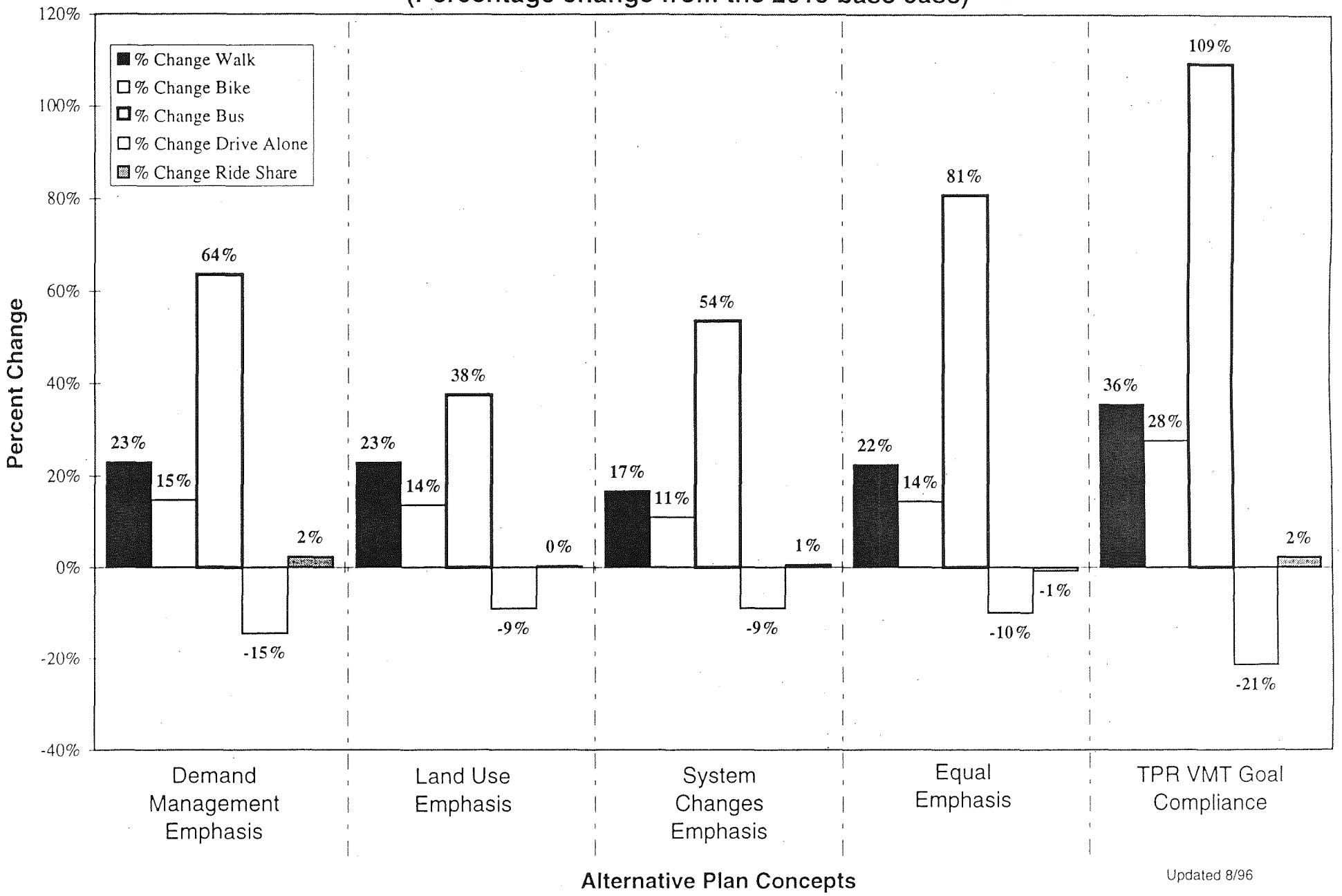


Table 1
Summary of Technical Analysis

				Alternative Plan Concepts				
		Objective	Existing Conditions	Base Case	Demand Management Emphasis	Land Use Emphasis	System Changes Emphasis	Equal Emphasis	TPR VMT Goal Compliance
Key Question	**Key Performance Measures**								
Efficiency	*Daily Fuel Use (in 1,000s of Gallons)*	Minimize	**193**	**271**	**253**	**259**	**262**	**251**	**233**
Efficiency	*Congested Miles of Travel*	Minimize	**2.6%**	**11.9%**	**9.0%**	**6.3%**	**6.6%**	**5.8%**	**5.0%**
Effectiveness	*Daily Vehicle Miles of Travel per Capita*	Reduce to 14.06	**15.62**	**16.54**	**15.21**	**15.82**	**15.93**	**15.38**	**13.78**
Effectiveness	*Percent of Person Trips Under 1 Mile*	Increase	**13.8%**	**12.7%**	**14.5%**	**14.5%**	**13.6%**	**14.2%**	**16.8%**
Effectiveness	*Mode Choice*								
	Percent Walk Trips	Increase	**8.0%**	**7.0%**	**8.6%**	**8.5%**	**8.1%**	**8.5%**	**9.4%**
	Percent Bike Trips	Increase	**3.5%**	**3.0%**	**3.4%**	**3.4%**	**3.3%**	**3.4%**	**3.8%**
	Percent Bus Trips	Increase	**2.1%**	**2.2%**	**3.6%**	**3.1%**	**3.4%**	**4.0%**	**4.7%**
	Percent Drive Alone Auto Trips	Reduce	**42.5%**	**43.5%**	**37.1%**	**39.5%**	**39.5%**	**39.1%**	**34.1%**
	Percent Shared Ride Auto Trips	Increase	**27.0%**	**27.3%**	**27.9%**	**27.4%**	**27.4%**	**27.0%**	**27.9%**
Environmental	*Vehicle Emissions (Annual Tons of Carbon Monoxide)*	Reduce	**14,142**	**13,723**	**12,995**	**13,131**	**13,182**	**11,065**	**10,070**
	Summary of Financial Analysis ($Millions 1995)								
Financial	*Total Estimated Costs*			$ 945.4	$ 1,020.1	$ 1,127.8	$ 1,247.1	$ 1,247.1	$ 1,268.9
Financial	*Total Estimated Revenues*								
	With State Gas Tax Increase			$ 865.6	$ 940.3	$ 940.3	$ 1,059.6	$ 1,059.6	$ 1,048.3
	Without State Gas tax Increase			$ 730.8	$ 805.5	$ 805.5	$ 924.8	$ 924.8	$ 923.0
Financial	***Estimated Gap***								
	With State Gas Tax Increase	Minimize		**$ (79.8)**	**$ (79.8)**	**$ (187.5)**	**$ (187.5)**	**$ (187.5)**	**$ (220.6)**
	Without State Gas tax Increase	Minimize		**$ (214.6)**	**$ (214.6)**	**$ (322.2)**	**$ (322.2)**	**$ (322.2)**	**$ (345.9)**
	Pricing Measure Revenues								
	Increased Parking Fees			$ 174.5	$ 293.2	$ 302.4	$ 299.7	$ 303.4	$ 291.4
	Gas Tax			$ -	$ 1,626.4	$ -	$ -	$ -	$ 1,547.3
	Bridge Tolls			$ -	$ -	$ -	$ -	$ -	$ 659.6
	Farebox Revenue Impact Compared to Base Case			$ -	$ (8.2)	$ 17.0	$ 24.3	$ (4.4)	$ 2.0
	Subtotal			$ 174.5	$ 1,911.4	$ 319.4	$ 324.0	$ 299.0	$ 2,500.4
	Total All Revenues								
	With State Gas Tax Increase			$ 1,040.1	$ 2,851.7	$ 1,259.7	$ 1,383.6	$ 1,358.6	$ 3,548.7
	Without State Gas Tax Increase			$ 905.3	$ 2,716.9	$ 1,124.9	$ 1,248.8	$ 1,223.8	$ 3,423.4
	Grand Total								
	With State Gas Tax Increase			**$ 94.7**	**$ 1,831.5**	**$ 131.9**	**$ 136.6**	**$ 111.5**	**$ 2,279.7**
	Without State Gas Tax Increase			**$ (40.1)**	**$ 1,696.7**	**$ (2.9)**	**$ 1.8**	**$ (23.3)**	**$ 2,154.4**

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Table 2
Summary of Financial Analysis
20 year totals in millions of 1995 $s

	Alternative Plan Concepts					
	Base Case	Demand Management Emphasis	Land Use Emphasis	System Changes Emphasis	Equal Emphasis	TPR VMT Goal Compliance
COSTS						
Auto and Bike						
Operations and Maintenance	$ 247.3	$ 247.3	$ 247.3	$ 247.3	$ 247.3	$ 247.3
Preservation	$ 165.5	$ 165.5	$ 165.5	$ 165.5	$ 165.5	$ 165.5
Modernization	$ 161.6	$ 161.6	$ 269.2	$ 269.2	$ 269.2	$ 161.6
Subtotal	$ 574.3	$ 574.3	$ 681.9	$ 681.9	$ 681.9	$ 574.3
Transit	$ 371.1	$ 445.8	$ 445.8	$ 565.1	$ 565.1	$ 694.6
REVENUES						
Auto and Bike						
With State Gas Tax Increase						
Operations, Maintenance, and Preservation	$ 311.2	$ 311.2	$ 311.2	$ 311.2	$ 311.2	$ 306.5
Modernization	$ 183.2	$ 183.2	$ 183.2	$ 183.2	$ 183.2	$ 176.6
Without State Gas Tax Increase						
Operations, Maintenance, and Preservation	$ 235.8	$ 235.8	$ 235.8	$ 235.8	$ 235.8	$ 234.2
Modernization	$ 123.8	$ 123.8	$ 123.8	$ 123.8	$ 123.8	$ 123.7
Subtotal						
With State Gas Tax Increase	$ 494.5	$ 494.5	$ 494.5	$ 494.5	$ 494.5	$ 483.1
Without State Gas Tax Increase	$ 359.7	$ 359.7	$ 359.7	$ 359.7	$ 359.7	$ 357.8
Transit	$ 371.1	$ 445.8	$ 445.8	$ 565.1	$ 565.1	$ 565.1
THE DIFFERENCE						
Total Costs	$ 945.4	$ 1,020.1	$ 1,127.8	$ 1,247.1	$ 1,247.1	$ 1,268.9
Total Non-Pricing Revenues						
With State Gas Tax Increase	$ 865.6	$ 940.3	$ 940.3	$ 1,059.6	$ 1,059.6	$ 1,048.3
Without State Gas Tax Increase	$ 730.8	$ 805.5	$ 805.5	$ 924.8	$ 924.8	$ 923.0
Grand Total						
With State Gas Tax Increase	$ (79.8)	$ (79.8)	$ (187.5)	$ (187.5)	$ (187.5)	$ (220.6)
Without State Gas Tax Increase	$ (214.6)	$ (214.6)	$ (322.2)	$ (322.2)	$ (322.2)	$ (345.9)
WITH PRICING REVENUES						
Increased Parking Fees	$ 174.5	$ 293.2	$ 302.4	$ 299.7	$ 303.4	$ 291.4
Gas Tax	$ -	$ 1,626.4	$ -	$ -	$ -	$ 1,547.3
Bridge Tolls	$ -	$ -	$ -	$ -	$ -	$ 659.6
Farebox Revenue Impact Compared to Base Case	$ -	$ (8.2)	$ 17.0	$ 24.3	$ (4.4)	$ 2.0
Subtotal	$ 174.5	$ 1,911.4	$ 319.4	$ 324.0	$ 299.0	$ 2,500.4
Total Revenues						
With State Gas Tax Increase	$ 1,040.1	$ 2,851.7	$ 1,259.7	$ 1,383.6	$ 1,358.6	$ 3,548.7
Without State Gas Tax Increase	$ 905.3	$ 2,716.9	$ 1,124.9	$ 1,248.8	$ 1,223.8	$ 3,423.4
Grand Total						
With State Gas Tax Increase	$ 94.7	$ 1,831.5	$ 131.9	$ 136.6	$ 111.5	$ 2,279.7
Without State Gas Tax Increase	$ (40.1)	$ 1,696.7	$ (2.9)	$ 1.8	$ (23.3)	$ 2,154.4

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Appendix C:

Stakeholder Recommendations and Results of the Third Symposium

Overview of Stakeholder Process

The concept of integrated transportation planning based on three types of strategies was presented to stakeholders at the first *TransPlan* update symposium in 1993. After the symposium, three stakeholder task forces were formed to study the strategies and identify those that seemed most effective and that might have the best opportunities for implementation in the Eugene-Springfield area. Preliminary plan concepts containing the three types of strategies were developed based on the stakeholder task force recommendations and input from citizens and public officials. These were reviewed with stakeholders at the second symposium in April 1995. The plan concepts then underwent an iterative evaluation, review, and refinement process, which was shaped by input from citizens, stakeholders, public officials, staff, and results of technical studies and the travel forecasting model.

The alternative plan concepts resulting from the refinement process represented a concerted effort to develop a range of plan concepts that contained all three types of strategies; responded to the preferences of citizens, stakeholders, and public officials; addressed legislative requirements; and achieved *TransPlan* Update Interim Goals and Objectives. These concepts were presented to stakeholders at the third symposium, held on August 28, 1996.

The symposium was attended by 31 stakeholders and eight others interested in observing the process. The main objective of the symposium was to provide stakeholders with the opportunity to make recommendations on plan concepts to planning commissions and elected officials. The input provided by stakeholders will be considered by elected and appointed officials in the process of providing staff with direction for the draft plan. A consultant facilitated the electronic voting sessions, wherein each stakeholder registered their opinions using an electronic keypad. Stakeholder preferences were immediately displayed on a screen in front of the group, providing them with immediate feed back.

Stakeholders also broke into six small discussion groups to work on refining the alternative plan concepts. Recommended refinements to the alternative plan concepts were presented for large group discussion and voting.

This Appendix summarizes the strategy recommendations made by the stakeholders and presents results of the process used at the third symposium.

Stakeholder Recommendations

During the third symposium, conducted in August, 1996, *TransPlan* stakeholders considered the proposed alternative plan concepts. In small discussion groups they worked to refine three of the plan concepts and as a large group, they voted on elements of a preferred plan concept. Stakeholders recommended the following strategies for the update of *TransPlan*:

- Encourage nodal development in all potential areas;
- Expand voluntary demand management measures;
- Increase the statewide gas tax to both raise revenues and influence demand;
- Increase parking fees and apply them region-wide;
- Reduce transit fares (contingent upon replacement revenue);
- Build the existing and committed projects network; and
- Build a Bus Rapid Transit system (without wholly exclusive right-of-way).

Stakeholders were presented with two roadway networks of system improvements to consider. The first contained the base list of projects that staff had developed, called "existing and committed". The second contained the base list of projects plus additional projects that addressed future capacity problems and supported alternative modes, called "committed and planned". During the small group discussions, four of the six groups supported the more extensive "committed and planned" road network. However, in the final large group voting session, the majority of stakeholders appeared to prefer the more conservative "existing and committed" network.

Staff Analysis of Stakeholder Recommendations

In concurrence with the stakeholder recommendations, staff is recommending the following strategies for the draft plan:

- Implementation of nodal development;
- Expanded voluntary demand management programs; and
- Development of a Bus Rapid Transit system.

Although stakeholders appeared to prefer the more conservative "existing and committed" network of projects, it would be difficult to successfully support the stakeholder recommendations for nodal development, a Bus Rapid Transit system, and a general increase in use of alternative modes without making road and bridge improvements beyond those specified in the base network.

Results of Third Symposium

The stakeholders were presented with four sets of questions asking them to evaluate different approaches to solving transportation problems. The first set (Section 6) asked them for their level of support for thirteen general strategy categories (four pricing, four nodal development, two transit, two roadway network). The second set (Section 7) asked for their level of support for the 6 plan concepts brought to the stakeholders by staff. The next set (Section 8) asked the whole group about their support for plan concepts created that day by the small stakeholder groups (modified staff plan concepts). The last set of questions ("Quick Vote," Section 9) were written on the spot to get clarification on specific recommendation from the stakeholders to guide the construction of the final "consensus plan concept." The last vote of the evening was on the support for that consensus plan concept.

The data are summarized here by a few simple statistics and graphs of the distributions for each vote. Below are brief descriptions of each statistic:

Total - The first statistic is just the total number of people voting on that question (all voters were stakeholders, elected officials were present but didn't vote with the exception of one who has been a stakeholder throughout the process). Twenty-eight people voted on the first question, the count had decreased slightly to 21 by the end of the symposium.

Average - The second statistic is a simple average of all the votes. This can be used to judge whether the vote overall was positive or negative. The problem with an average is that it doesn't describe the distribution of the votes: an average of 3 can result from all people voting 3, or half voting 1 while the other half voted 5.

Standard Deviation - This is a commonly used statistical measure of the average variation from the mean among the votes. Here it can be thought of as a measure of controversy. A larger standard deviation (1.5 is high), the further in general the votes are from the average (they are spread out), meaning people disagreed more. The smaller the standard deviation (0.6 is low), the closer the votes are to the average, people were generally in agreement.

Examples: 6.10 has a very small standard deviation (first page of graphs, upper right hand corner), 6.13 (bottom right) has a relatively large standard deviation.

Level of Consensus - With the concept of consensus in mind, the percentage of votes that are either neutral or favorable (3 or above) is listed. Since that includes 3 out of the five possible votes, a 60% level of consensus would be considered neutral (this would result if the responses were evenly spread from 1 to 5). Some responses received 100%, the lowest level received for this statistic is 46%, though a 0% is theoretically possible.

Summaries of Question sets

Strategies (6.1 - 6.13)

Two strategies stand out as being very popular: Nodal Development in Major Bus Route Areas, and the Enhanced Transit System. But several other strategies rated almost as high. There are clear patterns within each group of strategies: Nodal Development, Transit Systems, Pricing Measures, and Roadway Networks.

Nodal development strategies were popular in general. Nodal development in major bus route areas ranked the highest with an average of 4.4, 100% consensus, and the least controversy of all. Nodal development in central areas is a close second with an average of 4, and a 93% consensus. The popularity of the other two nodal strategies were very close, both scoring an average over 3.7, still more popular than most strategies in other categories.

The second most popular strategy was the enhanced transit strategy, receiving an average of 4.1, 100% consensus, with little controversy. The Bus Rapid Transit (BRT) strategy ranked a close second among transit system strategies (4.04); but the base transit system was significantly less popular, receiving an average score of 2.7 (less than neutral) and the lowest level of consensus among the strategies, 57%.

The only pricing strategy receiving an average over 4.0 was the gas tax strategy. The gas tax strategy received the highest average of the pricing strategies, 4.2 with an 89% consensus. The reduced transit strategy had some favor with an average of 3.5, it was later learned that there was concern about replacement revenues for the transit agency. Increased parking fees received an average of 3.25, while the bridge toll strategy was decidedly unpopular, receiving the lowest average of all, 2.68

Of the two roadway network strategies, committed and planned projects is more popular than just the existing and committed projects, but it was also more controversial. It received more "least preferred" votes than the slightly preferred existing and committed projects. It's clear that from the beginning of the event, there was not a strong preference for either of the roadway strategies.

Original Plan Concepts (7.1 - 7.6)

Of the six prepared plan concepts, two were clear favorites of the stakeholders. Land Use Emphasis received the highest average of 4.2 with a 100% consensus. Equal Emphasis was close behind with an average of 4.1, but with a 92% consensus (two people voted "not preferred"). The TPR VMT Goal Compliance concept received the third highest average of 3.7 but it was the most controversial, and had a fairly low 79% consensus. Demand Management Emphasis and Systems Change Emphasis received the same average of 3.4 though the Systems Change Emphasis concept received more of a

consensus, and the Demand Management Emphasis concept was more controversial. The Base Case concept was by far the least popular, with only two people responding favorably ("preferred").

Stakeholder-Constructed Plan Concepts (8.1 - 8.6)

Stakeholders at each table developed a plan concept based on review of materials and table discussion. These plan concepts are presented in Table C-1. These concepts were then presented to the group as a whole for ranking. All stakeholder-constructed concepts received an average rating between 3.1 and 3.7. Table 1 received both the highest average, 3.7, and the greatest consensus, 93%, followed by table 5. Table 6 clearly had the lowest level of consensus.

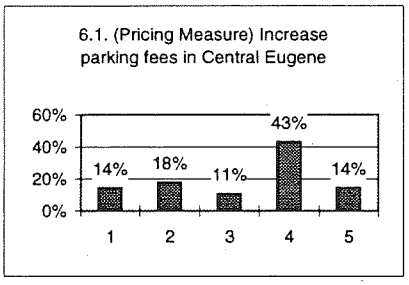
Quick Votes to Facilitate Discussion

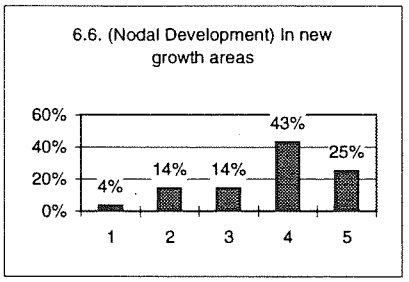
We were able to use the quick vote capability to get more clarification on the support for the gas tax increase. The stakeholders support increasing gas tax with the intent to raise revenues over increasing taxes to affect travel behavior. Though 60% of the stakeholders strongly supported increasing taxes to affect travel behavior, this approach was more controversial than the alternative. Stakeholders also clearly preferred increasing the state gas tax over implementing a local gas tax for this purpose.

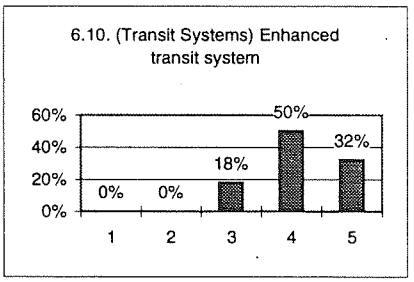
The more conservative roadway network strategy, "Existing and Committed Projects" was preferred over the "Committed and Planned Projects" at this point in the process. Finally, the Bus Rapid Transit System (without wholly exclusive right-of-way) was preferred over the other two transit strategies, with the Enhanced Transit System being the next preference.

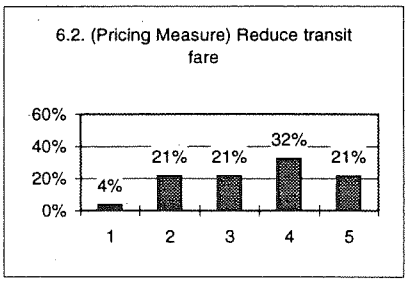
The final vote was on a "consensus" plan concept that was constructed based on all preceding votes. It received an average rating of 4.1, close behind the two more popular staff-constructed plan concepts, and higher than the stakeholder-constructed concepts. Two people did not support this concept, yielding a 95% level of consensus.

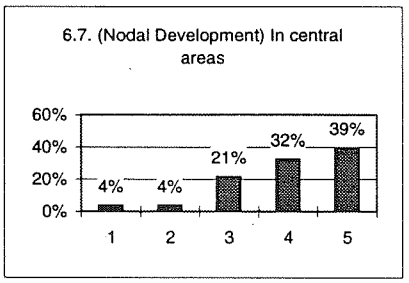
6. What preference do you have for each of the following strategies?	Total	Average	Standard Deviation	Level of Consensus
6.1. (Pricing Measure) Increase parking fees in Central Eugene	28	3.25	1.30	67.9%
6.2. (Pricing Measure) Reduce transit fare	28	3.46	1.15	75.0%
6.3. (Pricing Measure) Bridge tolls	28	2.68	1.39	53.6%
6.4. (Pricing Measure) Gas tax	28	4.18	1.14	89.3%
6.5. (Nodal Development) In all potential areas	28	3.79	1.15	82.1%
6.6. (Nodal Development) In new growth areas	28	3.71	1.10	82.1%
6.7. (Nodal Development) In central areas	28	4.00	1.04	92.9%
6.8. (Nodal Development) In major bus route areas	28	4.36	0.61	100.0%
6.9. (Transit Systems) Base transit system	28	2.71	1.13	57.1%
6.10. (Transit Systems) Enhanced transit system	28	4.14	0.69	100.0%
6.11. (Transit Systems) Bus Rapid Transit (BRT) system	28	4.04	0.98	92.9%
6.12. (Roadway Networks) Existing and committed projects	28	3.50	1.09	85.7%
6.13. (Roadway Networks) Committed and planned projects	28	3.61	1.45	78.6%

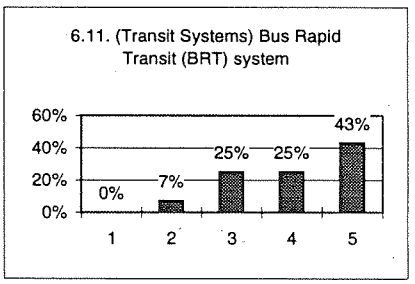


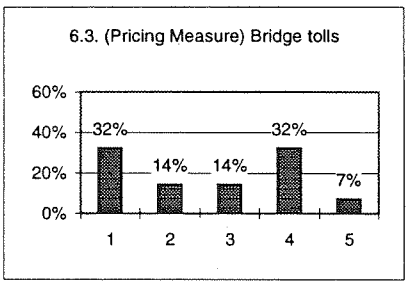


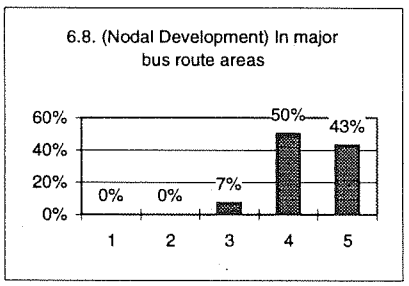


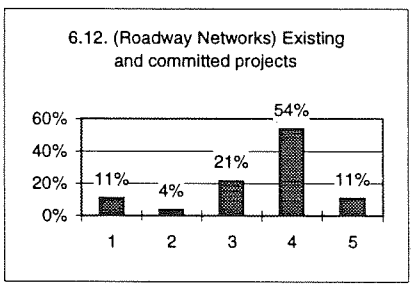


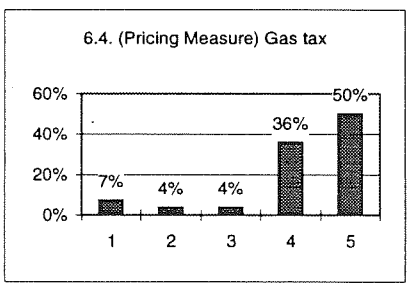


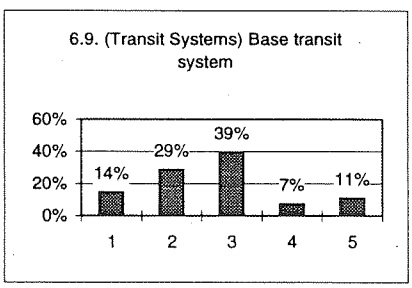


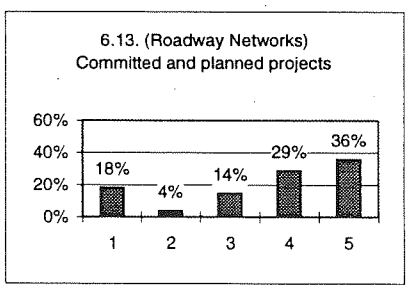


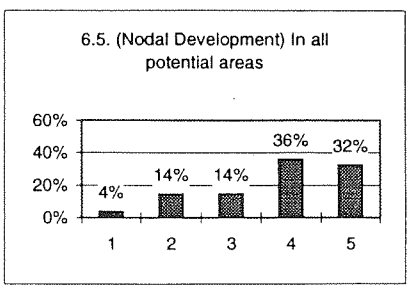








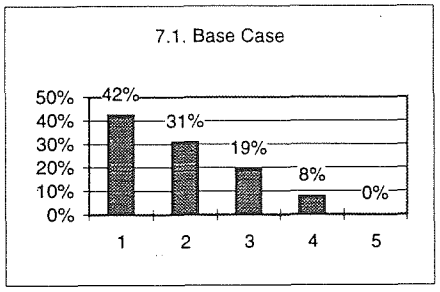


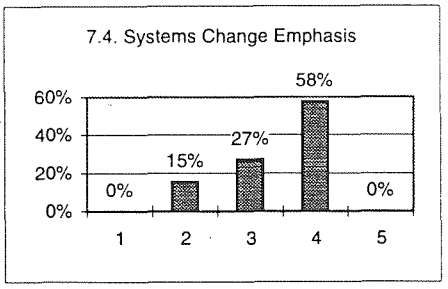


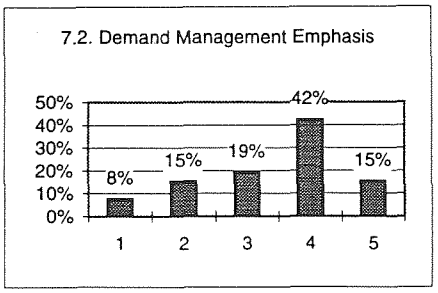
Key	
1	Least Preferred
2	Not Preferred
3	Neutral/DK
4	Preferred
5	Highly Preferred

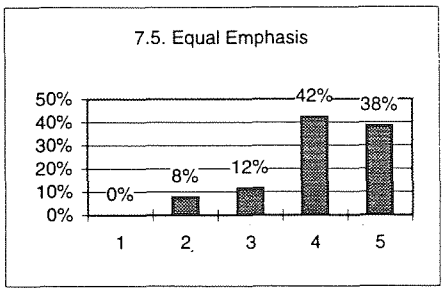
1 person = 3.6%

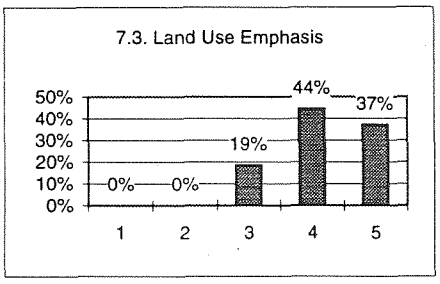
7. Round 1: alternative Plan Concepts. What is your level of support?	Total	Average	Standard Deviation	Consensus
7.1. Base Case	26	1.92	0.96	26.9%
7.2. Demand Management Emphasis	26	3.42	1.15	76.9%
7.3. Land Use Emphasis	27	4.19	0.72	100.0%
7.4. Systems Change Emphasis	26	3.42	0.74	84.6%
7.5. Equal Emphasis	26	4.12	0.89	92.3%
7.6. TPR VMT Goal Compliance	27	3.74	1.46	77.8%

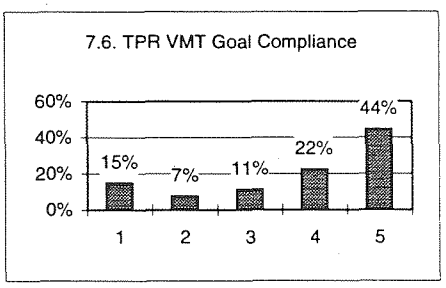








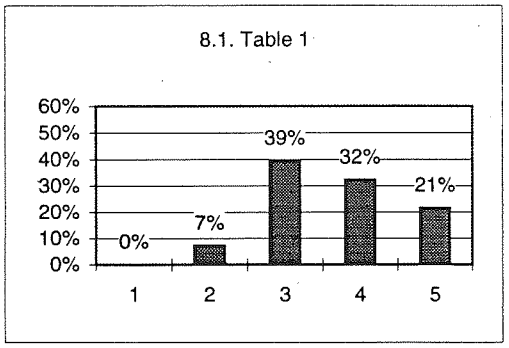


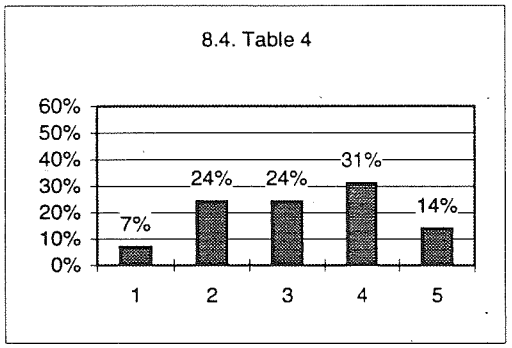


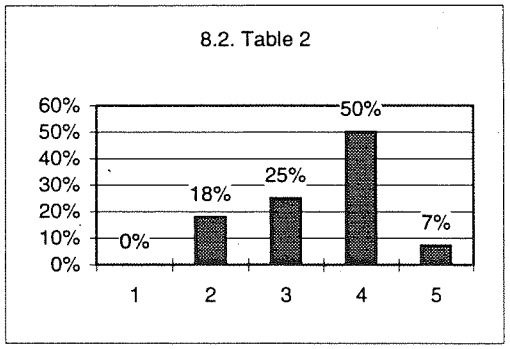
Key	
1	Least Preferred
2	Not Preferred
3	Neutral/DK
4	Preferred
5	Highly Preferred

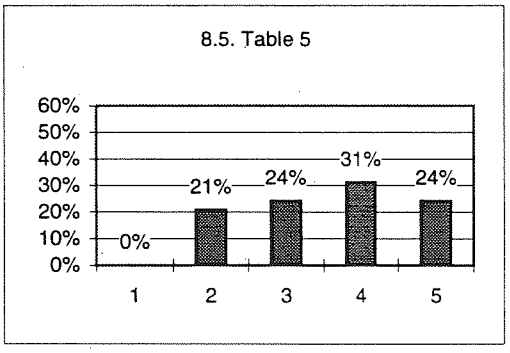
1 person = 3.8%

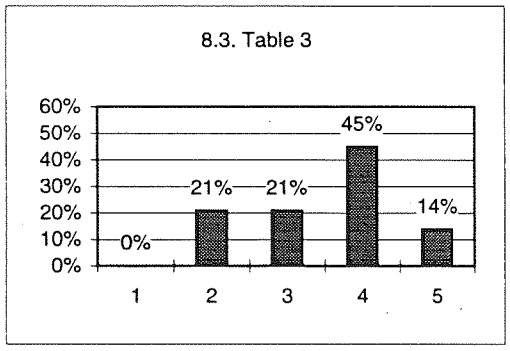
8. Round 2: Stakeholder Alternative Plan Concepts. What is your level of support?				
	Total	Average	Standard Deviation	Consensus
8.1. Table 1	28	3.68	0.89	92.9%
8.2. Table 2	28	3.46	0.87	82.1%
8.3. Table 3	29	3.52	0.97	79.3%
8.4. Table 4	29	3.21	1.16	69.0%
8.5. Table 5	29	3.59	1.07	79.3%
8.6. Table 6	29	3.10	1.42	62.1%

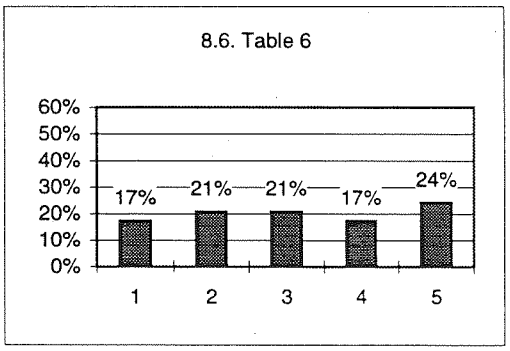












Key	
1	Strongly Oppose
2	Oppose
3	Neutral
4	Support
5	Strongly Support

1 person = 3.6%

Table A-1: Stakeholders' Alternative Plan Concepts and Strategies Table

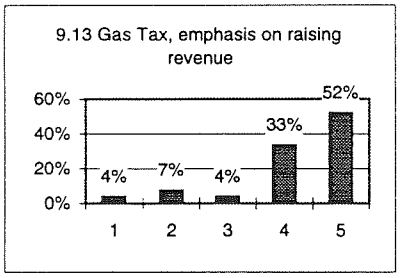
Strategies

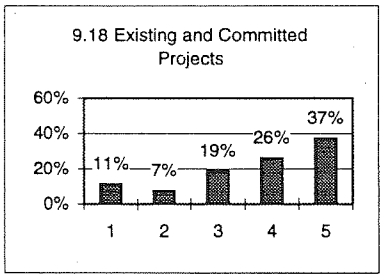
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6	Final Product
TDM Strategies							
Voluntary Programs	X	X	X	X	X	X	X
Pricing Measures:							
Increased Parking Fees in Central Eugene		X	X	X	X	X	X
Reduced Transit Fare		X		X	X	X	X
Bridge Tolls				X		X	
Gas Tax	X	X		X	X	X	X
Land Use Measures							
Existing Land Use Patterns							
Nodal Development Land Use Patterns:							
In All Potential Areas		X	X	X	X		X
Only in New Growth Areas							
Only in Central Areas	X					X	
Only on Major Bus Routes							
Transportation System Improvements							
Transit Systems							
Base Transit System							
Enhanced Transit System			X		X		
Bus Rapid Transit (BRT) System	X/XE	X		X^E	X	X^E	X
Roadway Networks							
Existing and Committed Projects Network				X		X	X
Committed and Planned Projects Network	X	X	X		X		
Other Strategies/Issues, Concerns							
TDM Strategies	Increase incentives, tax credits, public education			Incentives	Add TDM incentives		Voluntary TDM including public ed., incentives
	Fair parking strategy.	Parking fairness	Parking fairness: tax out-lying areas	Fair parking	Fair parking strat. that gen rev., discourages auto	Parking: don't want to discourage downtown activity	Fair parking.
		Replace LTD rev.	Replace LTD rev.		Concern about loss of transit revenue	Parking revenue dedicated to transit (reduced fares)	No reduction in transit revenue
	Tax credits for alt. modes			User fees	$1 gas tax may be high	Bridge toll collection automated	Statewide gas tax
					Expand pricing		
				Mand. TDM for bus. receiving tax credits	Concern about feasibility of local only user fees		
Land Use Measures		Voluntary/Permissive		Timing of development	Most nodes		
		Impact of interest groups on nodal development			Concern about social implications of nodal dev. on community structure		
Transportation System Improvements			Bike safety, amenities		Enhanced transit to lead to BRT		
					Make sure projects meet goals of TransPlan		
Other Comments/Concerns	Broaden Pop. Base			Impact of park fees on LU patterns.	Flexibility of gas tax revenue	Impact of tolls on dev. patterns	

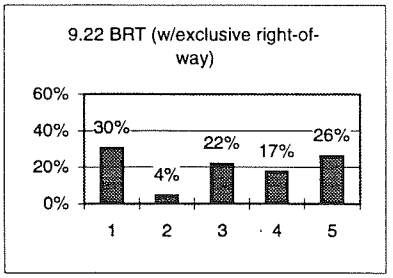
E=This BRT system includes exclusive right-of-way (dedicated lanes) on BRT routes.

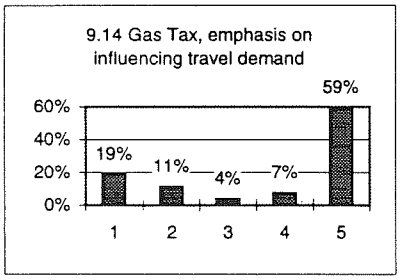
L:\transpln\pip\symposiums\symposium3\graphics\Stakeholder plan concepts matrix.xls

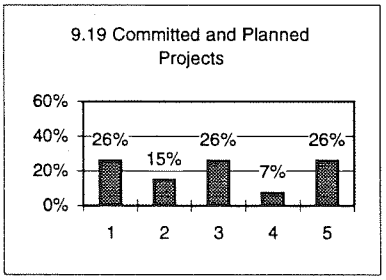
9. Quick Vote: What is your level of support?	Total	Average	Standard Deviation	Consensus
9.13 Gas Tax, emphasis on raising revenue	27	4.22	1.07	88.9%
9.14 Gas Tax, emphasis on influencing travel demand	27	3.78	1.64	70.4%
9.15 A local gas tax	28	2.57	1.47	46.4%
9.16 A state gas tax	27	4.44	0.99	92.6%
9.17 Reducing Transit Fares	28	3.18	1.36	64.3%
9.18 Existing and Committed Projects	27	3.70	1.33	81.5%
9.19 Committed and Planned Projects	27	2.93	1.51	59.3%
9.20 Enhanced Transit System	25	4.32	0.73	100.0%
9.21 BRT (w/o exclusive right-of-way)	24	3.92	1.29	83.3%
9.22 BRT (w/exclusive right-of-way)	23	3.04	1.57	65.2%
9.23 Enhanced Transit System (second vote)	23	3.70	1.23	87.0%
9.24 BRT (w/o exclusive right-of-way) (second vote)	23	4.61	0.77	95.7%
9.25 Final Product	21	4.10	0.81	95.2%

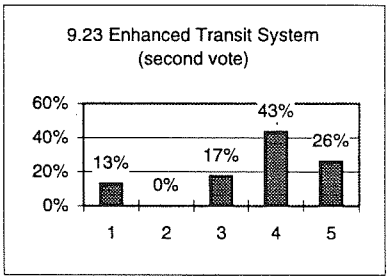


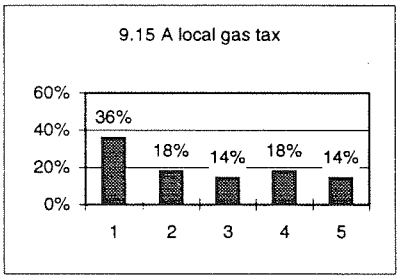


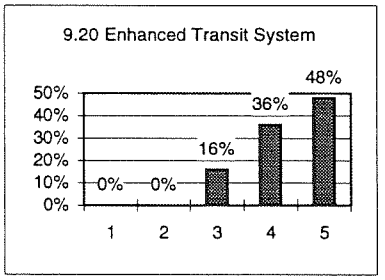


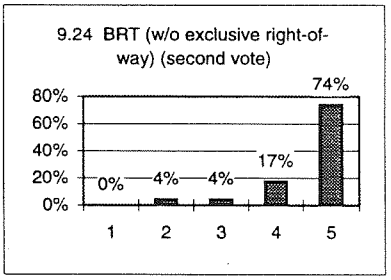


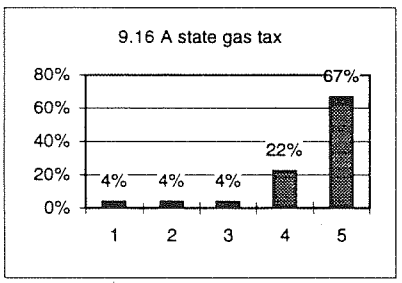


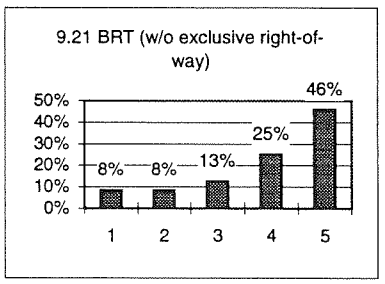


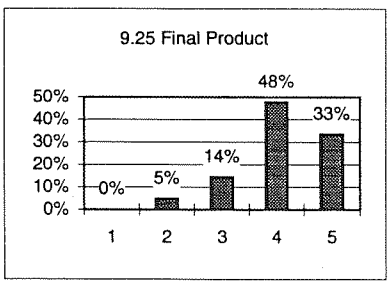


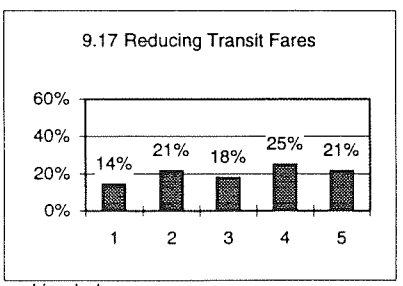












Key	
1	Strongly Oppose
2	Oppose
3	Neutral
4	Support
5	Strongly Support

1 person = 3.5% - 4.7%

Appendix D:

Preliminary Project Lists

Draft TransPlan Project List

05-Nov-96

Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	U	141	18th Ave, City View-Arthur	Widen to 5 lanes with bike lanes; improve signalization	$946,000
	U	147	Roosevelt,Beltline-Danebo	Construct 3 lane arterial, curbs, sidewalks, bike lanes	$308,000
	P	161	Willow Creek Rd, 11th-18th	Upgrade to 3 lane urban facility, curbs, sidewalks, bike lanes; realign north end with Danebo at 11th and improve intersection	$895,070
	P	164	Willamette St, 13th-18th	Revise for 2-way traffic flow, widen and improve intersection at 18th	$15,000
	U	165	24th at Willamette and Parkway	Widen intersection, provide channelization; improve/provide signalization	$300,000
	U	184	Dillard Rd,Hilyard-Fox Glen	Upgrade to 2 lane urban facility; curbs, sidewalk, bike lanes	$185,000
	U	214.1	Ferry St./Coburg Rd (FSB)	Preservation project	$29,600,000
	U	214.2	FSB/Country Cub Rd., Club Rd. - Coburg Rd.	Upgrade to 3-lane urban facility, sidewalks, bike lanes	$0
	U	214.3	FSB/Southwood Lane, Oakway Rd. - Country Club	Upgrade to urban standards, 2 lanes, sidewalks, bike lanes	$0
	U	214.4	FSB/Coburg Rd., at Oakway Rd.	Improve channelization and signalization	$0
	P	215	Coburg Rd at Oakway Signal	Improve channelization and signalization (cost incl. in 214.1)	
	U	224.1	18th Ave Intersections	Channelization and signalization improvements at 18th Ave. and High, Pearl, Oak, Willamette, Lincoln, Jefferson, Friendly	$1,300,000
	U	224.2	18th, Willamette-High	Widen to 5 lanes	$536,300
	P	242.2	Terry St, Parkway to Barger #2	Construct 3 lane arterial, curbs, sidewalks, bike lanes	$1,170,000
	P	243.2	Bailey Hill Rd, 18th-Parkway #2	Included in WEP, construct 5 lane arterial, curbs, sidewalks, bike lanes	
	U	247	18th Ave, Polk-Friendly	Remove parking, restripe as 3 lanes, restriping for turn lane	$8,000
	U	248	18th Ave, Bailey Hill-Bertelsen	Restripe as 3 lanes	$16,640
	U	270	Bethel Dr, Roosevelt-Hwy 99	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$2,361,360
	U	273	Glenwood Exten, I-5-Laurel Hill	Construct collector access, provide curbs, sidewalks, bike lanes, road will not connect to 30th Ave.	$577,320
	P	277	18th,Bertelsen-Willow Creek	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$1,152,390
	U	278	Willow Creek, 18th-UGB	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$580,000
	U	280	Jeppesen Acres,Gilham-Providence	Upgrade to 2 lane urban facility, curbs, sidewalks	$364,040
	P	286	Maple St, Roosevelt-Elmira	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$148,890
	U	287	Elmira Rd, Hwy 99-Bertelsen	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$1,319,000
	U	288	Goodpasture Is, Delta-Happy	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$409,550
	U	289	Agate, 30th-Black Oak	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$521,670
	U	324	Valley River Bridge	New 4 lane bridge over Willamette R., connects River Rd. south of Park St. to Goodpasture Is. Rd., develop connector roads from bridge to Goodpasture Is., intersection improvements at: Chambers and Roosevelt, River Rd. and bridge; acquire ROW short range	$14,000,000
	U	325	18th,Bailey Hl-City Vw,Arthur-Pk	Widen to 5 lanes, improve signalization	$4,966,140
	U	331	Willamette, 29th-32nd	Widen to 4 lanes; improve intersections at Donald & 32nd, add bike lanes	$445,210

Draft TransPlan Project List

05-Nov-96

Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	U	342.2	Fox Hollow, Donald to 1/2 mi South, Seg. #2	Upgrade to 2 lane urban facility; curbs, sidewalks, bike lanes	$821,620
	U	344	Seneca, 11th-Parkway	Widen to 4 lanes, improve intersections at 6th/7th & 11th, curbs, sidewalks, bike lanes	$292,850
	P	345	Bailey Hill, Bertelsen-UGB	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$330,000
	U	349	30th, Onyx-Alder	Add second westbound lane	$430,456
	U	356	Royal Ave, Terry-Greenhill	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$1,151,000
	U	357	Barger, Terry-Greenhill	Upgrade to 3 lane urban facility, curbs, sidewalks, bike lanes	$1,294,300
	U	369	Dillard, 43rd-Garnet	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$488,450
	U	371	Crest, Olive-Storey	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$466,600
	U	372	Storey Blvd, Lorane-south City Limits	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$1,376,050
	U	373	Friendly, 28th-Lorane	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$407,380
	P	374	Lorane Hwy, 29th-Chambers	Upgrade to 2 lane urban facility, curbs, sidewalks, bike lanes	$2,884,000
	U	1001	Cal Young Rd., Gilham Rd.-Willakenzie Rd.	Widen, upgrade intersection @ Willakenzie	$511,300
	U	1002	Centennial Blvd., Intersection with Garden Way & Kinsrow	Install signals	$175,000
	U	1004	Country Club Rd.	Upgrade to 3-lane urban facility, bike lanes, sidewalks	
	U	1005	Crescent Ave., Norkenzie-Coburg Rd.	Install signal @ Gilham	$150,000
	U	1007	Game Farm Rd., Coburg Rd.-Game Farm Rd.	Upgrade to urban standards, 2 lanes	$1,701,000
	U	1008	Garden Way, Harlow Rd.-Centennial Blvd.	Realignment, upgrade to urban facility, curbs, sidewalks, bike lanes	$2,304,000
	U	1011	Chad Dr., Coburg Rd.-Old Coburg Rd. (2 or 3 lanes)	Provide industrial ingress/egress, upgrade to 2-3 lanes	$422,000
	U	1012	County Farm Lp., West-East Section	Upgrade to 2 lane urban street; curbs, bike lane	$772,600
	U	1013	Gilham, Northernmost new connector to Ayres Rd.	Upgrade to 2 lane urban facility, curbs, sidewalks & bike lane	$711,500
	U	1015	Kinsrow, Centennial Blvd. to East	Upgrade to 3 lane urban facility,curbs, sidewalks, bike lane	$366,000
	U	1017	Old Coburg Rd., Game Farm Rd.-Chad	Upgrade to 3 lane urban street,curbs, sidewalks, bike lanes	$1,647,300
	U	1018	East-West Coll. St., North of Ayres rd. between Gilham Rd. & Delta Hwy.	Construct new east-west collector	$863,500
	U	1019	East-West Coll. St., South of Gilham School	Propose new collector street	$863,500
	U	1020	North-South Collector St., North of Ayres Rd. between Gilham Rd. & Delta Hwy.	Construct new north-south collector street in described area.	$943,700
	U	1022	County Farm Lp., North-South Section	Upgrade to 3 lane urban street w/curbs & sidewalks	$702,000
	U	1023	Delta Hwy., Ayres Rd.-Beltline Rd.	Upgrade to 3 lane urban street w/curbs & sidewalks	$1,079,500
	U	1024	Ayres Rd.	Add language to TransPlan medium range project #281	
	U	1026	Q Street Channel, Centennial Lp. to Garden Way Path	Multi-Use Path	$565,200

Draft TransPlan Project List

05-Nov-96

Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	U	1103	Bertelson, 18th-Bailey Hill Rd.	Upgrade to 3 lane urban facility, curbs, sidewalks, bike lanes	$926,630
	U	1104	22nd Ave., Henderson Rd.-Glenwood Blvd.	Widen existing roadway from 30ft to 38ft, add curbs & sidewalks, bike lanes	$289,600
	U	1105	Amazon Parkway, 19th-24th	Add southbound lane	$580,920
				Jurisdiction Total:	**$87,643,536**

Draft TransPlan Project List

05-Nov-96

Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Lane County	U	152	Bertelsen Rd,18th-Bailey Hill	Upgrade to a 3 lane urban facility; curbs, sidewalk, bike lanes	$560,000
	P	194	N 19th, City Limits-Yolanda	R.O.W. Acquisition. Gen Const, bike lanes, sidewalks.	$270,000
	P	229	Irving Rd,River Rd-Prairie	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$1,300,000
	U	230	Irvington Dr,River Rd-Prairie	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$3,100,000
	U	245	Club Rd,Country Club-Centennial	Widen to 4-5 lanes; curbs, sidewalks, bike lanes	$0
	U	246	Delta Hwy, Beltline-Ayres	Upgrade to 3 lane urban facility; consider 5 lanes at commercial area; curbs, sidewalks, bike lanes	$940,000
	U	258	Goodpasture Is at E Delta Signal	Signal improvements	$105,000
	U	271	River Ave, River Rd-Division	Upgrade to 2 lane urban facility; curbs, sidewalks, bike lanes	$1,100,000
	U	272	Hunsaker/Beaver, Division-Riv Rd	Upgrade to 2 lane urban facility; curbs, sidewalks, bike lanes	$800,000
	P	274	Garden Wy,Sisters View-Cen	Upgrade to City Standards	$625,000
	U	275	Game Farm S,Beltline-Harlow	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$1,100,000
	U	276	Laura St, G-Harlow	Widen to 3 lanes; curbs, sidewalks	$745,000
	P	281	Ayres Rd, Delta Hwy.-Gilham Rd.	Upgrade to 2-3 lane urban facility, curbs, sidewalks, bike lanes, storm & sanitary sewers	$1,128,900
	P	326	Beaver St Art, Hunsaker-Wilkes	R.O.W Acquisition. General construction.	$1,600,000
	U	327.2	River Rd, Irvington-Beacon, Seg. #2	Widen to 3 lanes; after construction of: curbs, sidewalks, bike lanes; consider phasing project at Spring Creek	
	P	328	Coburg Rd, Crescent-UGB	R.O.W. Acquisition. General Construction, bike lanes, sidewalks.	$1,000,000
	U	329	Beltline East,Gateway-Game Farm	Upgrade to 5 lane urban facility; curbs, sidewalks, bike lanes	$460,000
	P	330	Centennial, I-5-Prescott	Provide curb, gutter, sidewalks	$640,000
	P	350	Irving Rd, Prairie-Hwy 99	Upgrade to 3 lane urban facility; curbs, sidewalks, bike lanes	$470,000
	U	353	S32nd, Main-Jasper Rd	Upgrade to 3 lane urban facility; curbs, sidewalks, bike lanes	$1,280,000
	U	358	Greenhill, Barger-11th	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$2,250,000
	U	375	Division Ave, Div Pl-River Rd	Provide curbs, sidewalks, and bike lanes; add 1 eastbound lane and sidewalk	$300,000
	U	378	Hayden Br Rd,19th-Marcola	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$1,900,000
	U	379	N 31st St, Hayden Bridge-Marcola	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$840,000
	P	382	Mt Vernon Cemetary Road,59th-S/C Hwy	General Construction; upgrade to 2 lane urban facility; curbs, sidewalks, bike lanes	$460,000
	U	383.2	Aspen St, West D-Centennial #2	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	
	U	385	Wilkes Drive, River Rd-R Lp 1	Upgrade to 2-3 lane urban facility; curbs, sidewalks, bike lanes	$780,000
	U	386	Prairie Rd, Irvington-Carol	Upgrade to 3 lane urban arterial; curbs, sidewalks, bike lanes	$500,000
				Jurisdiction Total:	**$24,253,900**

Draft TransPlan Project List

05-Nov-96

Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
ODOT	I	102	SR-126 Landscaping	Landscaping/lighting at: 2nd/3rd (lighting), Mohawk, 42nd, 52nd (lighting)	$300,000
	U	106	I-105, Wash/Jeff Bridge	Add 3rd southbound lane, Delta-6th	$1,500,000
	U	107	6th/7th Ext. (W. Eug Parkway)	Construct 4 lane limited access arterial; bicycle improvements	$40,000,000
	U	201	Beltline, River Rd-Delta	Widen to 6 lanes; construct new or widen existing Willamette River Bridges; revise Division/River Ave ramps; reconstruct/relocate Division Ave from Division Place to Beltline	$35,000,000
	U	213	Beltline Rd at Parkway	Construct interchange	$3,000,000
	P	216.2	Hwy 99, Garfield to Beltline #2	Upgrade to 5 lane urban facility; curbs, sidewalks, bike lanes	
	U	217.2	Franklin Boulevard Intersections #2	Provide additional turn lanes and signal improvements on Franklin Blvd. at: Broadway, Patterson, Hilyard, Agate and Villard	
	P	219	11th,Danebo-Terry	Widen to 3-5 lanes and signal @ Terry (Formerly: 3 lanes in 97 & 98. + Signals @ Danebo/11th FY97; Terry 11th FY98).	$1,600,000
	U	305	SR-126 at 52nd Interchange	Construct interchange	$3,000,000
	U	306	SR-126 at Main Interchange	Construct interchange	$3,000,000
	P	317.2	Beltline, Hwy. 99-11th Interchanges	Overcrossing at Royal, continue widening to 4 lanes. (ODOT: W. 11th N. city limits stage 2)	$12,300,000
	U	317.3	Beltline, Hwy. 99-11th Interchanges	Continue widening to 4 lanes; new RR Xing, interchange @ WEP, at grade intersections @ Roosevelt and 11th, turn lanes on 11th. (ODOT: W. 11th N. city limits stage 3)	$17,000,000
	P	321	Main, 69th-28th Intersections	Construct signal @ 69th, Interconnect	$371,000
	U	322	Jasper Rd Ext., Main St.-Creswell Hwy.	Construct 2-3 lane arterial south of Main St.; bike lanes	$2,200,000
	U	351	S 42nd at Daisy Signal	Signal improvement	$200,000
	U	354	Jasper Rd, Mt Vernon-42nd	Upgrade to 2-3 lane urban facility; curb, sidewalks, bike lanes	$1,160,000
	U	355	S42nd, Main-Jasper	Widen and improve road; curbs, sidewalks	$1,650,000
	P	401	WEP #1 (1A)	W 11th - Garfield: 4-lane new construction	$15,300,000
	U	402	WEP #2 (1B)	W 11th - Garfield: 4-lane new construction, continued	$34,231,000
	U	403	WEP #3 (2A)	Construct two lanes of future lane roadway btw W 11th and Beltline	$30,496,000
	U	404	WEP #4 (2B)	Construct remaining two lanes.	$6,545,000
	U	405	Beltline I-5 Interchange		$0
	P	406	Beltline @ I-5 (safety)	Safety improvements	$1,746,000
	P	407	Beltline @ Delta Hwy (safety)	WB offramp and signal	$3,252,000
				Jurisdiction Total:	**$213,851,000**

Draft TransPlan Project List

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Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Springfield	U	192	Daisy St Ext	Construct new link to Daisy St.; curbs and sidewalks	$600,000
	U	221	Main St at 48th	Signal improvements	$105,000
	U	222	Main St at 68th	Signal improvements	$220,000
	U	244	Commercial St,35th-42nd	Upgrade to 3 lane urban facility; curbs, sidewalks, bike lanes	$1,800,000
	U	252	Centennial Blvd at 21st Signal	Signal improvements; improve channelization	$200,000
	U	253	Centennial Blvd at 28th Signal	Signal improvements; improve channelization	$200,000
	U	256	Harlow at Pheasant Signal	Signal improvements	$200,000
	U	283	N 69th,Main-Thurston	Widen on east side of roadway; provide major storm drainage improvements	$1,000,000
	U	284	35th, Commercial-Olympic	Upgrade to 3 lane urban facility; curbs, sidewalks, bike lanes	$1,200,000
	U	290	New S 48th at Daisy	Signal improvements	$200,000
	U	291	52nd St, G-SR 126	Upgrade to 2 lane urban facility; curbs, sidewalks	$400,000
	U	347	Booth-Kelly, 28th-48th	Develop 2 lane arterial on logging road right-of-way; curbs, sidewalks, bike lanes	$3,600,000
	U	376	Glacier, 57th-48th	Develop new, 2 lane collector; curbs, sidewalks, bike lanes	$1,500,000
	U	380	G St, 48th-52nd	Upgrade to 2 lane urban facility; curbs, sidewalks, bike lanes	$660,000
	U	381	48th, Main-G	Upgrade to 2 lane urban facility; curbs, sidewalks, bike lanes	$900,000
	U	1037	Oakdale	New construction	$250,000
	U	1041	Gamebird Park	Upgrade pedestrian and bike paths	
	U	1042	Baldy View Lane	Upgrade to urban standards, sidewalks, bike lanes	$590,000
	U	1043	Deadmond Ferry Rd.	Upgrade to urban standards, sidewalks, bike lanes	$400,000
	U	1044	MDR Site	Construct new north-south collector	$699,000
	U	1045	Beltline Rd.	Upgrade to urban standards, sidewalks, bike lanes	
	U	1048	Raleighwood Avenue	2-3 lanes,sidewalks, bike paths	$449,000
				Jurisdiction Total:	**$15,173,000**
				Grand Total:	**$340,921,436**

*Status Codes: P=Programmed, U=Unprogrammed, I=In Progress

Draft TransPlan Bicycle Project List

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Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	P		Crescent Ave	Striped Lane	
	U	0	Jefferson Street	Striped Lane	
	P	0	Chad	Striped Lane	
	U	0	30th Avenue	Striped Lane	
	U	0	Fox Hollow	Striped Lane	
	U	0	Dillard	Striped Lane	
	C	0	Roosevelt Blvd		
	U	0	Willamette Street	Striped Lane	
	U	0	Jefferson/Washington Couplet	Striped Lane	
	U	0	W. 11th Avenue	Striped Lane	
	U	0	W. 13th Street	Striped Lane	
	U	0	Seneca	Striped Lane	
	U	0	Howard Avenue	Striped Lane	
	U	0	Park Avenue	Striped Lane	
	C	0	Roosevelt Path adjacent to drainage channel		
	U	0	Willamette Street	Striped Lane	
	U	0	County Farm Rd.	Striped Lane	
	P	0	Crescent	Striped Lane	
	U	0	Lorane Highway (B)	Striped Lane	
	U	0	Torr Ave	Striped Lane	
	U	0	Portland St/27th Ave	Route	
	U	0	Chad Rd/Old Coburg Rd	Striped Lane	
	U	0	Country Club Rd/Centennial Blvd.	Striped Lane	
	U	0	Oakmont	Route	
	U	0	My De Frontier	Route	
	U	0	Tandy Turn/Lariat Meadows	Route, Multi-Use Path	
	U	0	County Farm Rd.	Striped Lane	
	U	0	Spyglass	Route, Multi-Use Path	
	U	0	Clinton/Debrick	Route	
	U	0	Roosevelt Blvd.	Striped Lane	
	U	0	Linda/Sally	Route	
	U	1026	Q Street Channel, Centennial Lp. to Garden Way Path	Multi-Use Path	$565,200
	C	2101	Roosevelt Connector (A)		
	C	2101	Roosevelt Connector (B)		

Draft TransPlan Bicycle Project List

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Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	U	2103	A 2 Channel (Jessen Dr)	Multi Use Path	$982,000
	U	2104	Irvington Rd	Striped Lane	
	P	2110	Irving Rd	Striped Lane	
	U	2111	Prairie Rd	Striped Lane	
	U	2112	Silver Ln/River Ave	Striped Lane	
	C	2113	Hwy 99		
	U	2114	Hunsaker/Beaver/Division	Striped Lane/Route	
	U	2115	Bethel Dr	Striped Lane	
	U	2116	Wilkes Dr	Striped Lane	
	C	2119	Northwest Expressway		
	U	2120	River Ave	Striped Lane	
	U	2121	Beaver St Extension	Striped Lane	
	C	2126	West Bank Trail (A)		$409,000
	C	2130	Maxwell Rd		
	U	2131	Grove Street	Striped Lane	
	U	2141	Lake Dr/Horn Ln/Park Ave	Striped Lane	
	U	2150	Barger Drive	Striped Lane	
	U	2155	Candlelight/Danebo	Route	
	U	2159	Avalon Street (A)	Multi-Use Path/Route	
	U	2160	W. Hilliard/Hilliard	Striped Lane	
	U	2174	Royal Ave	Striped Lane	
	U	2180	Beltline Path adjacent to Beltline Road (A)	Multi-Use Path	$3,068,000
	U	2181	Terry Street	Striped Lane	
	U	2182	Elmira Road	Striped Lane	
	U	2183	Figueroa St	Striped Lane	
	C	2191	Roosevelt Path (C)		
	U	2204	Gilham School	Striped Lane	
	C	2220	Crescent/Green Acres		
	U	2226	East Bank Trail (A)	Multi-Use Path	$1,432,000
	P	2226	East Bank Trail (B)	Multi-Use Path	$716,000
	C	2226	Goodpasture Lakes Loop		
	F	2229	Delta Ponds Path	Multi-Use Path & Bridge	
	U	2230	Goodpasture Island Rd	Striped Lane	
	U	2231	Delta Hwy Path	Multi-Use Path	
	U	2233	Delta Highway	Striped Lane	
	U	2234	Minda Dr	Route	

Draft TransPlan Bicycle Project List

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Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	C	2237	Gilham Rd		
	U	2238	Kingsley Rd		
	P	2239	Ayres Rd	Striped Lane	
	U	2240	Willakenzie Rd	Route	
	U	2241	Van Dyne/Bogart Rd	Route	
	U	2246	Valley River Way (A)	Striped Lane	
	U	2246	Valley River Connector (B)	Multi-Use Path	$102,000
	C	2272	Valley River Drive		
	C	2288	Centennial Blvd		
	C	2289	Alton Baker Park Path		
	U	2291	Garden Way/Knickerbocker bridge connector	Multi-Use Path	$205,000
	C	2293	Reflection Pond Path		
	U	2295	I-5 Path	Multi-Use Path	$716,000
	U	2306	6th/7th Extension (WEP)	Striped Lane	$2,454,000
	P	2310	5th and 7th Avenues	Striped Lane	
	U	2311	McKinley St	Multi-Use Path/Route	
	U	2315	Bertelsen Rd	Striped Lane	
	U	2316	5th Ave Connector (WEP)	Multi-Use Path	$205,000
	C	2321	Fern Ridge Path #1 (ACE)	Multi-Use Path	$1,636,000
	U	2321	Fern Ridge Path #2	Multi-Use Path	$1,366,000
	F	2321	Fern Ridge Path #3	Multi-Use Path	
	U	2322	Stewart Rd	Route	
	U	2324	West 11th Ave	Striped Lane	
	P	2350	18th Ave	Striped Lane	
	P	2351	Willow Creek Rd	Striped Lane	
	U	2356	Bailey Hill Rd (A)	Striped Lane	
	P	2356	Bailey Hill Rd (B)	Striped Lane	
	U	2365	Chambers St	Striped Lane	
	U	2366	Westmoreland Park Path	Multi-Use Path	$102,000
	P	2367	Westmoreland Park Path	Multi-Use Path & Bridge	$627,000
	U	2375	Polk St	Multi-Use Path	
	U	2377	Tyler St	Route	
	U	2380	28th Ave	Striped Lane	
	U	2385	Friendly St	Striped Lane	
	U	2405	Garfield St	Striped Lane	

Draft TransPlan Bicycle Project List

05-Nov-96

Juris. Code	Status Code*	Old TP#	Name	Description	Plan Cost
Eugene	C	2412	Millrace Path (Eug.) (A)	Multi-Use Path	
	U	2412	Millrace Path (Eug.) (B)	Multi-Use Path	$205,000
	F	2412	Millrace Path (Eug.) (C)	Multi-Use Path	
	C	2420	Railroad Blvd		
	U	2429	2nd Ave	Route	
	U	2431	5th Ave (A)	Multi-Use Path	$36,000
	U	2431	5th Ave (B)	Route	
	U	2437	Monroe St (A)	Route	
	U	2437	Monroe St (B)	Striped Lane, Route	
	C	2464	Riverview St		
	U	2465	Summit St	Route	
	U	2467	Emerald St	Route	
	C	2472	Glenwood Connector		
	U	2480	18th Ave	Striped Lane	
	U	2511	Spring Blvd (A)	Route	
	U	2511	Spring Blvd (B)	Multi-Use Path	$205,000
	U	2518	Augusta St (A)	Route	
	F	2518	Augusta St (C)	Multi-Use Path	
	U	2518	Augusta St (B)	Route	
	U	2520	29th Ave	Striped Lane	
	U	2521	Donald St	Striped Lane	
	C	2530	30th Ave		
	F	2532	South Amazon Path	Multi-Use Path	
	U	2532	East Amazon St	Striped Lane	
	U	2540	Crest Dr	Striped Lane	
	U	2550	33rd Ave	Striped Lane	
	F	2559	Deertrail Path	Multi-Use Path, Route	
	F	2600	South Hills MTB Trail	Multi-Use Path	
				Jurisdiction Total:	**$15,031,200**

Appendix E:

Maps

The following maps are included in this appendix:

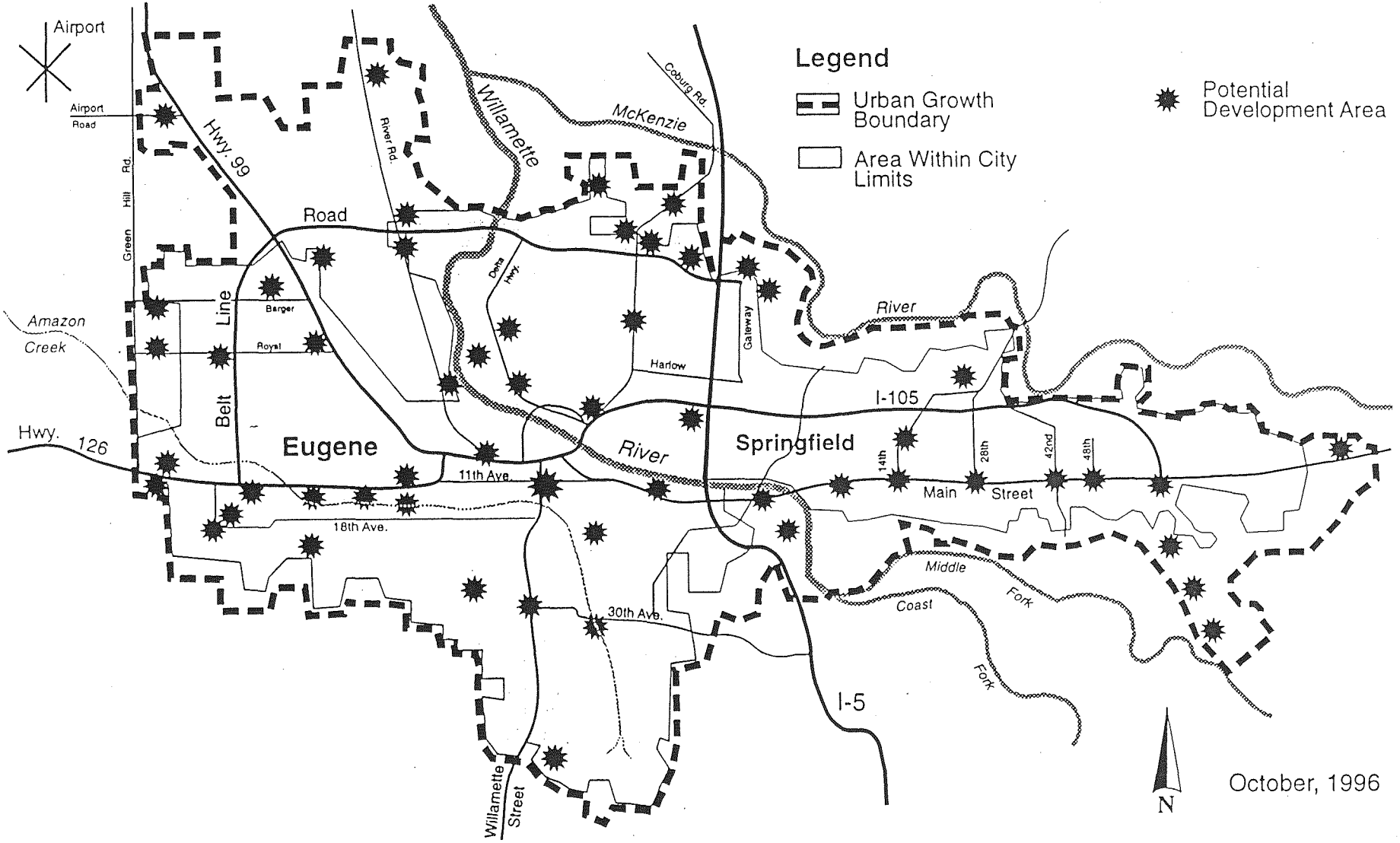
Nodal Development

Proposed Roadway Network

Bus Rapid Transit Network

Bicycle System Network

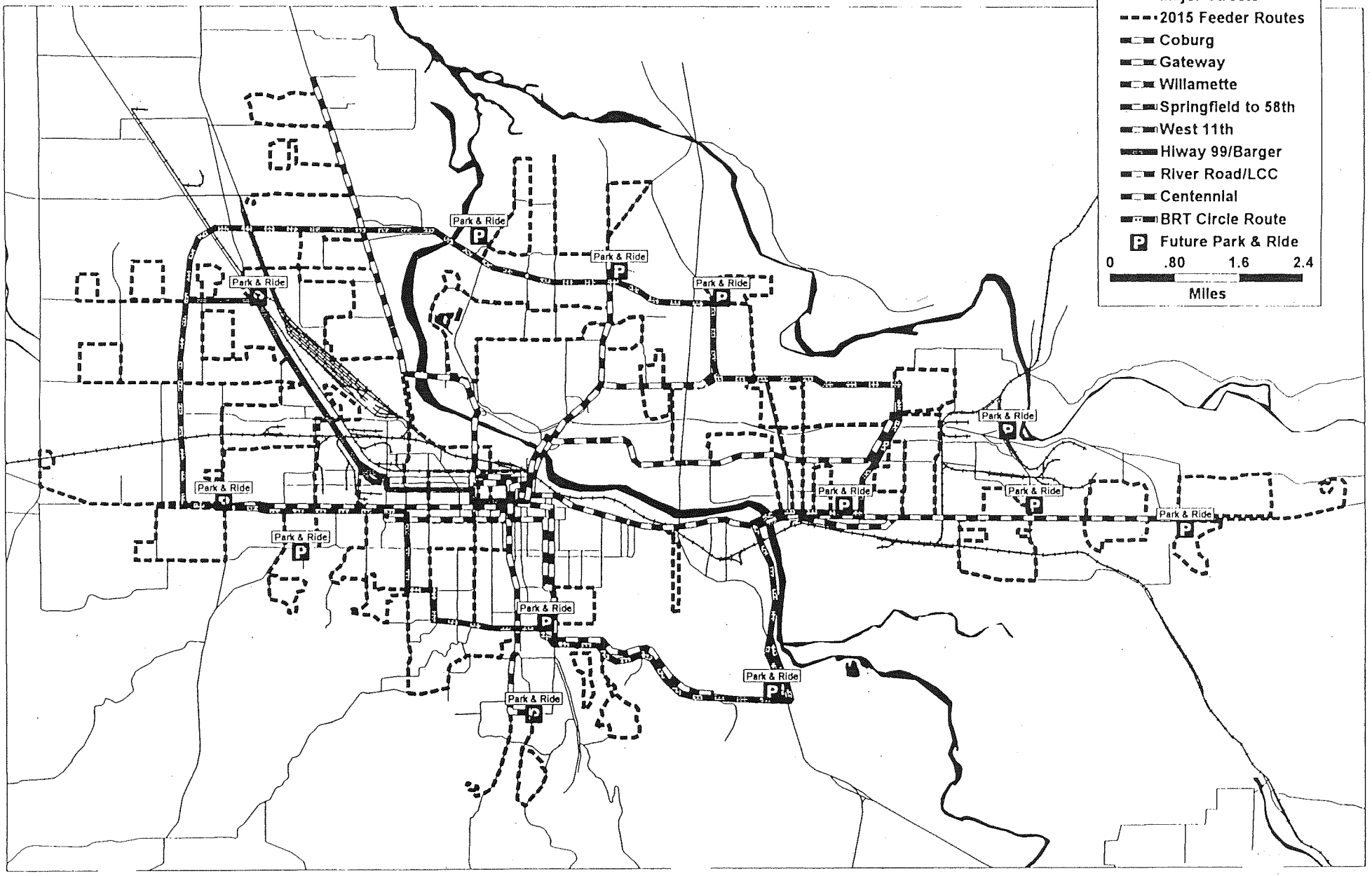
Potential Nodal Development Areas



Lane Transit District

Year 2015 Bus Rapid Transit Corridors

Eugene- Springfield



Appendix F:

TransPlan Update Products List

TransPlan Update Publications

LCOG and participating jurisdictions have produced a variety of publications and made them available to the public throughout the *TransPlan* update process. These publications can be categorized as follows:

- *TransPlan* Update information publications;
- Nodal development publications;
- Consultant Reports;
- Task force products;
- Technical reports;
- Videos

TransPlan Update Information Publications

- *Newsletters (10) and Brochures (2)*
- *Glossary of Transportation and Land Use Terms, Winter 1993*
- *Citizen's Guide to Transportation Planning, November 1994*
- *Trends, Issues and Opportunities, November 1993*
- *Interim Goals and Objectives*
- *Alternative Plan Concepts Draft Working Paper*
- *Workshop Fact Sheets, May 1996*
- *Symposium Briefing Materials, August 1996*

Task Force Products

- *Transportation Demand Management Task Force Final Report, June 1994*
- *Land Use Measures Strategies Document, June 1994*
- *Transportation System Improvement Final Report, June 1994*
- *Transportation System Improvement Draft Policies, June 1994*
- *Transportation System Improvement Strategies Document, June 1994*

Nodal Development Publications

- *Proposed Design Principles for Nodal Developments, September 1994*
- *How Do We Grow From Here?, June 1995*
- *A comparison of Development Costs in Eugene/Springfield: Standard Subdivision vs. Nodal development, June 1995*
- *Transportation-Efficient Development, May 1996*

Technical Reports

- *Transportation Rule Implementation Project (TRIP) Code Amendments as adopted by the Eugene City Council, December 1993*
- *Strategies to Balance and Improve Our Transportation System, Winter 1994*
- *Transportation Demand Management Technical Analysis, June 1995*
- *Regional Parking Inventory Eugene/Springfield Final Report, July 1995*
- *TransPlan and Metro Plan Periodic Review Future Land Use Assumptions, August 1995*
- *Documentation of Land Use Allocation Model, April 1996*
- *TransPlan Update Public Involvement Documentation, Ongoing (Draft available)*

Consultant Reports

- *Lane Council of Governments TransPlan Update Base Line Data, Spring 1993*
- *Picture Your Future - TransPlan Visual Preferences, February 1994*
- *Household Activity and Travel Survey Focus Group Technical Memo, March 1994*
- *1994 Commuter Pack Survey, January 1995*
- *Household Activity and Travel Survey Technical Memo on Overall Results, Spring 1995*
- *Origin-Destination Survey Results, Spring 1995*
- *Design Principles for Mixing Uses and Increasing Densities - Workshop Process, Key Findings and Recommendations, June 1995*
- *Local Road Study - Springfield, June 1995*
- *Local Road Study - Eugene, June 1995*
- *Urban Rail Feasibility Study - Final Report, July 1995*
- *Pacific Northwest High Speed Rail Southern Terminus Study, July 1995*
- *Pricing Study (Technical Memo), September 1995*
- *TransPlan Focus Groups with Area Residents, February 1996*
- *Exploratory Research on TransPlan with Area Business Owners/Managers, June 1996*
- *TransPlan Community Survey Report, June 1996*
- *Springfield Bicycle Plan (draft), June 1996*

Videos

- *Building For The Future: Transportation Efficient Land Use, Spring 1996*
- *Transportation-Efficient Development: An Eyewitness Report, Spring 1996*
- *Nodal Development Presentation—Shelly Poticha*
- *First TransPlan Symposium, November 1993*
- *Design Studio End-of-Term*
- *Third TransPlan Symposium, August 1996*
- *Overview of Regional Transportation Planning Issues*
- *Visual Preference Survey, February 1994*
- *Visual Preference Survey Results, March 1994*
- *Community Focus Groups (6)*
- *Business Focus Groups (3)*

Pending Publications

- *Nodal Development Strategy Document, Spring 1996*
- *Nodal Development Design Guidebook, Spring 1996*
- *Summary of Third Stakeholder Symposium, Fall 1996*
- *Public Decision Document, Winter 1996*
- *Technical Evaluation Summary Report, Winter 1996*
- *Employment and Population Projections: 1995-2020, Winter 1996*
- *Transportation Demand Management Strategy Refinement, Winter 1996*
- *Mixed Use Market Demand Study, Winter-Spring 1997*
- *Redevelopment and Infill Potential in the Eugene-Springfield Area, Spring 1997*
- *Bus Rapid Transit Technical Analysis, Winter - Spring 1997*
- *Neighborhood Impact Analysis, Spring 1997*
- *Documentation of Transportation System Modeling, Spring 1997*
- *TransPlan Draft Document, Spring-Summer 1997*