7-13-2000

Meeting Notes 2000-07-13 [Part B]

Joint Policy Advisory Committee on Transportation

METRO

Attachment 2

RTP Preface and Introduction Revisions

Preface

The 2040 Growth Concept was adopted in 1996, and serves as the blueprint for future growth in the region. The 2040 plan places an ~~new~~ emphasis on focusing new development in existing centers, and protecting farm land from urban expansion. This 2000 Regional Transportation Plan (RTP) marks the end of a nearly five-year planning process to begin a refined implementation of the 2040 Growth Concept. As such, the ~~1999~~ 2000 RTP is the culmination of a nearly 25~~0~~-year evolution from a mostly road-oriented plan to a more multi-modal one, ultimately mixing land-use and transportation objectives in a truly integrated fashion. The transportation improvements recommended in this plan are prioritized and layered within the 2000 RTP to address differing federal, state and regional planning requirements and are summarized in the Introduction. ~~both respond to expected growth, and leverage key elements of the 2040 Growth Concept.~~

The ~~1999~~ 2000 RTP is the result of extensive input from the residents of this region and from our state, regional and local government partners. The plan recognizes the diversity of transportation needs throughout the Portland metropolitan region, and attempts to balance often competing transportation needs. This RTP sets the policies, systems and actions to adequately serve walking, bicycling, driving, use of transit and national and international freight movement in this region.

While advocating a transportation system that adequately serves all modes of travel, the plan recognizes that the automobile will likely continue to be the primary mode of personal travel over the life of the plan. However, the RTP also recognizes the need for transportation alternatives for traveling to everyday destinations, and to provide mobility for those unable to travel by automobile. ~~that many possibilities exist to limit our need to drive to certain destinations, such as a neighborhood coffee shop or a restaurant near your place of work. The plan, therefore, also stresses the need to plan a transportation system that expands our choices for travel within the region~~. Even ~~on~~ the occasional ~~basis, the~~ use of transit, walking, bicycling or sharing a ride can help the region maintain its clean air, conserve energy and efficiently accommodate more people within a compact urban form ~~growth boundary~~.

Finally, the Regional Transportation Plan recognizes that the transportation system plays a critical role in the continued economic health of the region. Many sectors of the regional economy heavily depend on the safe and efficient movement of goods and services by truck, rail, air and water. Improvements defined in this plan ~~try~~ attempt to balance all of these diverse, and often ~~times~~ competing~~,~~ needs. The Regional Transportation Plan identifies ~~modal systems and includes a number of~~ strategic investments that aim to:

- limit the amount of congestion motorists experience
- maintain access for national and international rail, air, truck and ship freight to reach its destination with limited travel delay
- balance the need to maintain motor vehicle and freight mobility with the potential impacts of these improvements on our communities and other modes of travel
- expand public transit service and improve pedestrian access to transit
- build new sidewalks and bicycle facilities
- develop system and demand management strategies to improve how the system operates

Read on to learn more about Metro's commitment to link transportation, land-use and environmental planning for the region in order to protect the community livability we all value. A brief, illustrated overview of the plan is also available from Metro, and can also be viewed online at Metro's website: www.metro-region.org.

The 2000 Regional Transportation Plan

The 2000 Regional Transportation Plan is a 20-year blueprint for the Portland metropolitan region's transportation system. The plan deals with how best to move people and goods in and through the region. There are many transportation needs in this region, including:

- limit the amount of congestion people experience, and provide alternatives to avoid congestion
- build new sidewalks and bicycle facilities
- expand transit service and improve pedestrian access to transit
- maintain access for national and international rail, truck, air and marine freight to reach its destination with limited delay
- regional street designs that safely accommodate all forms of travel

One of ~~Metro's~~ the region's goals is to provide a balanced range of transportation choices for the movement of people and goods in this region. The plan sets transportation policies for all forms of travel: motor vehicle, transit, pedestrian, bicycle and freight. The plan includes specific objectives, strategies and projects to guide local and regional implementation of each policy.

Why does the RTP matter?

As this region grows, additional demands are placed on the existing transportation system. The RTP matters because it defines regional policies that all city, county, Tri-Met, Oregon Department of Transportation and Port of Portland transportation plans must follow. ~~It~~ Through the financially constrained and strategic systems described in Chapter 5, the plan identifies transportation projects and programs throughout the region for the next 20 years to implement the region's 2040 Growth Concept and addresses the impacts of future growth on our transportation system.

The plan must also meet federal and state requirements. A transportation project is eligible for ~~state and~~ federal transportation funds distributed through Metro if it is included in the financially constrained system ~~adopted RTP~~ and is consistent with federal air quality standards. The projects and programs in the strategic system address state transportation planning requirements. The role of these systems in meeting state and federal requirements, and funding specific projects and programs is described in more detail in the "how to use this plan" section that follows.

Choices made today about how to serve future growth in this region will have lasting impacts on our quality of life. The 2000 Regional Transportation Plan is just one part of Metro's overall strategy to protect the community livability we all value.

Metro's Role in Transportation Planning

Metro is the regional government and federally designated metropolitan planning organization (MPO) for the Portland metropolitan area. Metro is governed by an executive officer elected region-wide and a seven-member council elected by districts. Metro's jurisdictional boundary encompasses the urban portions of Multnomah, Washington and Clackamas counties. Today, Metro serves 1.3 million people

who live in these three counties and the 24 cities in the Portland metropolitan area. Metro coordinates with the Southwest Washington Regional Transportation Council, the federally designated MPO for the Clark County portion of the metropolitan region.

How to Use this Plan

The Regional Transportation Plan, first adopted by the Metro Council in 1983, is updated every three to five years to reflect ~~changes~~ changing conditions in the Portland metropolitan region. ~~The process to update the plan was started in 1994.~~ The Metro Council adopted an interim Regional Transportation Plan in 1995 to address new federal planning requirements. This document is the result of ~~that~~ the interim 1995 plan being further updated to implement policies identified in the adopted Regional Framework Plan (1997) and the 2040 Growth Concept, to address state planning requirements set forth in the Transportation Planning Rule, and to address future transportation needs through the year 2020.

The 2000 Regional Transportation Plan ~~This document~~ marks the end of a ~~nearly~~ five-year process that has included extensive input from the residents of this region and from our state, regional and local government partners. The plan is organized into six chapters, and includes an introduction, glossary of terms and an appendi~~x~~ces.

- The **Introduction** describes the different systems set forth in the plan, and how they relate to ~~provides the~~ federal, state and regional planning requirements, and the selection of transportation improvements in the four-year Metropolitan Transportation Improvement Program (MTIP) ~~context for the creation of this plan and outlines the overall intent of the plan.~~

- **Chapter 1** presents the overall policy framework for the specific transportation policies, objectives and actions contained in the Regional Transportation Plan. This chapter sets a direction for future planning and decision-making by the Metro Council and the implementing agencies, counties and cities.

- **Chapter 2** describes the expected land uses and travel demand for the year 2020 based on implementation of the 2040 Growth Concept and predicted population and employment growth.

- **Chapter 3** analyzes the impact of future growth on the "preferred system" that includes all future projects and programs necessary to meet the goals and objectives established in Chapter 1. ~~This chapter~~ Appendix 1.1 lists all of these improvements grouped by location as defined in the 2040 Growth Concept. The chapter also describes federal congestion management requirements and provides an analysis of how this plan meets these requirements.

- **Chapter 4** discusses transportation revenue sources and estimated costs for implementation of the preferred system. ~~This chapter also includes a listing of potential new revenue sources that could help address revenue shortfalls.~~

- **Chapter 5** analyzes the impact of future growth on the "financially constrained" and strategic systems.~~, which~~ The financially constrained system includes the most critical projects and programs needed over the 20-year planning period. The strategic system contains additional projects and programs needed to keep pace with future growth, while maintaining an adequate level of performance. This chapter also ~~lists all of~~ groups these proposed projects and programs by geographic subarea. ~~improvements grouped~~The proposed projects are further grouped into three phases of implementation – from 2000 to 2005, 2006 to 2010 and 2011 to 2020. ~~The proposed projects~~

~~are further grouped by location, as defined in the 2040 Growth Concept~~. This chapter also proposes potential funding strategies to implement the strategic system.

- **Chapter 6** describes the processes through which this plan will be implemented; defines statewide goal and local comprehensive plan compliance procedures; establishes a process to update, refine and amend the RTP; and details outstanding issues that remain unresolved at the time this plan is adopted.

- The **Glossary** of terms located at the end of the document includes definitions of many transportation-related planning and engineering terms used throughout the document.

- The **Appendices** are located in a separate document. It contains ~~numerous~~ the technical documents used to develop this plan and ~~actual~~ legal findings of compliance with federal, state and regional planning requirements.

The 2000 Regional Transportation Plan was developed to include separate layers of planned projects and programs that respond to differing federal, state and regional planning mandates. These layers are:

- the **financially constrained system**, which responds to federal planning requirements, and is based on a financial forecast of limited funding over the 20-year plan period

- the **strategic system**, which responds to state planning requirements, and assumes that significant new revenue must be identified in order to provide an adequate transportation system over the 20-year plan period

- the **preferred system**., which responds to regional planning policies adopted as part of the 2040 Growth Concept and Regional Framework Plan, including specific system performance measures.

Each of these distinct layers of transportation projects and programs are described in more detail below.

Federal Context and the Financially Constrained System

As a federally designated MPO, Metro must coordinate transportation planning for the Portland metropolitan region, including distribution of federal transportation funds to this region through the Regional Transportation Plan and the Metropolitan Transportation Improvement Program. Adopted in the 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) was amended in 1998 as the Transportation Equity Act for the 21st Century (TEA-21). These Congressional acts expanded public participation in the transportation planning process and required increased cooperation among the jurisdictions that own and operate the region's transportation system. These partners include the region's 24 cities, three counties, Oregon Department of Transportation, Oregon Department of Environmental Quality, Port of Portland, Tri-Met, Washington Regional Transportation Council, Washington Department of Transportation, Southwest Washington Air Pollution Control Authority and other Clark County governments.

The centerpiece of the federal planning program is the development of a financially constrained transportation system. This system of projects and programs is limited to current funding sources, and those new sources that can be reasonably expected to be available during the 20-year plan period. In Oregon, state transportation funding has not kept pace with inflation or the need for new infrastructure

during the past 15 years. This trend could translate into a serious decline in performance of the region's transportation system during the next 20 years, as limited funds are increasingly required to maintain and operate the system, leaving inadequate funds to keep pace with growth. The financially constrained system described in Chapter 5 describes such a scenario. While this system includes the region's most critical projects and programs, the overall system is inadequate to meet adopted performance measures, and would limit the region's ability to fully implement the 2040 Growth Concept.

As the federally recognized system, the financially constrained system is also the source of transportation projects that may be funded through the Metropolitan Transportation Improvement Program. The MTIP allocates federal funds in the region, and is updated every two years, and includes a rolling, four-year program of transportation improvements. The 2000 Regional Transportation Plan not only provides an updated set of financially constrained projects and programs for future MTIP allocations, but also establishes more formal procedures and objectives for implementing the long-range regional transportation policies through incremental funding decisions. These new MTIP provisions are set forth in Chapter 6 of the 2000 Regional Transportation Plan.

Other federal transportation planning requirements also apply to Metro. The federal Clean Air Act Amendments of 1990 establish air quality standards for key air pollutants, including carbon monoxide, ozone and particulate matter. Areas that do not meet the standards are designated in varying degrees of non-attainment from "marginal" to "extreme." If a metropolitan area is designated non-attainment, the state in which the metropolitan area is located must submit an implementation plan that shows how the metropolitan area will meet the federal standards and maintain compliance over a 10-year period. Areas that do not meet the State Implementation Plan requirements could face sanctions, including potential loss of federal highway funds and limits on industrial expansion.

In 1991, the Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) received a marginal non-attainment designation for ozone and moderate non-attainment designation for carbon monoxide. However, by the end of 1991, the area began to meet federal ozone and carbon monoxide standards on a consistent basis. As a result, this region began to work on 10-year maintenance plans and attainment designation requests for both pollutants. These plans were finalized in 1996 and submitted to the U.S. Environmental Protection Agency (EPA) as revisions to the Oregon State Implementation Plan. EPA approved the maintenance plans and also designated the Portland-Vancouver Interstate AQMA to attainment status in 1997. As required in the federal planning regulations, the financially constrained system in the 2000 Regional Transportation Plan has been demonstrated to conform with the Clean Air Act.

Another federal requirement that impacts regional transportation planning is the Endangered Species Act (ESA), a federal regulation that mandates protection and recovery for species in immediate and near-immediate danger of extinction. The 1998 and 1999 listing of Pacific Northwest steelhead, chinook and chum as threatened species under the ESA have placed an additional emphasis on protecting fish and wildlife habitat. The National Marine Fisheries Service (NMFS) is the federal agency charged with the listing and recovery of anadromous fish. An anadromous fish reproduces in fresh water but spends part of the growth cycle in the ocean. Once a species is listed, no person or municipality may "take" individual fish or so disrupt habitat as to "take" an individual fish without a permit. A "take" is any action that harms, threatens, endangers or harasses a species or modifies or degrades that species' habitat. There are often conflicts between good transportation design, planned urbanization and the need to protect streams and wildlife corridors from urban impacts~~, particularly in urban reserves~~. Metro and its local, regional, state, and federal partners ~~is in the early stages of~~ are defining actions to protect these endangered

species. Chapter 6 of the 2000 Regional Transportation Plan identifies outstanding issues that must be addressed prior to the next update to the plan, including the upcoming Green Streets project.

Additional federal transportation requirements include the 1990 Americans with Disabilities Act, which requires that transportation plans address equal access and opportunity for disabled people. The updated plan includes new policy provisions that focus on the transportation needs of the elderly, disables and other special needs populations. Chapter 6 of the plan also identifies additional work that must be completed to fully address special needs populations.

State Context and the Strategic System

In 1991, the Land Conservation and Development Commission adopted the Oregon Transportation Planning Rule (TPR). The TPR ~~is intended to~~ implements State Land Use Planning Goal 12, Transportation, which was adopted by the Oregon Legislature in 1974. The TPR requires most cities and counties and the state's four MPOs to adopt transportation system plans that consider all modes of transportation, energy conservation and avoid principal reliance on any one mode to meet transportation needs. ~~Local plans~~ By state law, local plans in MPO areas must be consistent with the regional transportation system plan (TSP). In the Portland region, the 2000 Regional Transportation Plan serves as the regional TSP. Likewise, regional plans must be consistent with the Oregon Transportation Plan, adopted in 1992 by the Oregon Transportation Commission.

The state TPR requires that transportation system plans provide an adequate system of improvements that meet adopted performance measures. The strategic system described in Chapter 5 of this plan serves as the statement of adequacy for the purpose of compliance with the state TPR. The strategic system includes a broad set of needed transportation projects and programs that generally keep pace with growth in the region, while implementing key elements of the 2040 Growth Concept.

However, projects in the strategic system cannot be funded through the MTIP process unless they are also included in the smaller financially constrained system. Instead, these projects and programs are intended to guide local transportation plans and land use actions, and serve as the source of future projects in the financially constrained system, either through amendments to the Regional Transportation Plan, or through the regular updates that occur every three to five years.

~~In addition, the TPR describes specific elements and analysis that local and regional transportation system plans must address, including consideration of possible land use solutions to transportation problems and identification of multi-modal, system management and demand management strategies to address identified transportation needs.~~

Regional Context and the Preferred System

In 1979, the voters in this region created Metro, the only directly elected regional government in the ~~U.S~~ nation. In 1991, Metro adopted Regional Urban Growth Goals and Objectives (RUGGOs) in response to state planning requirements. Revised in 1995 and acknowledged by the Land Conservation Development Commission in 1996, the RUGGOs establish a process for coordinating planning in the metropolitan region in an effort to preserve regional livability. RUGGOs, including the 2040 Growth Concept, also

provide the policy framework for guiding Metro's regional planning program, including development of functional plans and management of the region's urban growth boundary.

In 1992, the voters of the Portland metropolitan area approved a home-rule charter for Metro. The charter identifies specific responsibilities of Metro and gives the agency broad powers to regulate land-use planning throughout the three-county region and to address what the charter identifies as "issues of regional concern." Among these responsibilities, the charter directs Metro to provide transportation and land-use planning services, oversee regional garbage disposal, and recycling and waste reduction programs, develop and operate a regional parks system and operate regional spectator facilities such as the Oregon Zoo, the Oregon Convention Center and the Portland Metropolitan Exposition (Expo) Center.

The charter also directs Metro to develop a Regional Framework Plan that integrates land-use, transportation and other regional planning mandates. In 1995, the Metro Council adopted the 2040 Growth Concept as part of revisions to the RUGGOs adopted in 1991. The 2040 Growth Concept served as the first step in developing the charter-required regional framework plan.

Adopted in December 1997, the Regional Framework Plan is a comprehensive set of policies that integrate land-use, transportation, water, parks and open spaces and other important regional issues. The plan is intended to guide Metro's planning efforts to manage future growth in this region and implement the 2040 Growth Concept. ~~Chapter 2~~ The transportation component of the framework plan outlines overall transportation policies for the region for the next 40 years, and is incorporated as Chapter 1 of the 2000 Regional Transportation Plan.

~~**The 2040 Growth Concept**~~
~~**Protecting livable communities**~~

Since adoption of RUGGOs in 1991 and a home-rule charter in 1992, Metro has been involved in a long-range planning process that has included extensive involvement of residents of this region and our state, regional and local government partners. Metro started this planning effort because the region is growing rapidly. Today there are about 100,000 more people living in the three-county region than there were five years ago. By 2017, 470,000 more people are expected to live here.

The purpose of this effort has been to develop a plan for protecting livable communities based on the values expressed by people in this region – such as clean air and water, access to nature, safe and stable neighborhoods, the ability to get around the region and a strong regional economy.

~~**Evaluating Options**~~

The 2040 planning process also ~~has~~ included an evaluation of how different land-use and transportation strategies could help ~~us~~ preserve livability in this region. The possible consequences of such strategies were analyzed, including their impact on operation of the region's transportation system. The regional strategy that evolved from this process is called the 2040 Growth Concept, which integrates land-use and transportation planning and curbs ~~sprawl~~ rural and resource land consumption. From a transportation standpoint, the 2040 Growth Concept provided the best overall performance at the lowest cost of all the alternatives concepts that were evaluated.

Adopted in 1995 as part of the RUGGOs, the 2040 Growth Concept directs most new development to centers and along existing major transportation corridors. It relies on a balanced transportation system that adequately serves walking, bicycling, driving, transit and national and international freight

movement. Building neighborhoods and communities to focus new jobs, housing and services in these centers and corridors provides many benefits and has important implications for the region's transportation system.

The 2040 Growth Concept can be summarized by the following components:

- centers and corridors with an emphasis on higher development densities, mixed land uses, ease of traveling by transit, bicycling and walking, parking limit and streets designed for people, not just cars
- neighborhoods that will remain largely residential in nature, and change very little from today
- industrial areas and marine, rail and air cargo terminals that serve as the hub for regional commerce
- environmentally sensitive areas that need special protections

The preferred system of transportation projects and programs described in Chapter 3 of the 2000 Regional Transportation Plan represents the full set of improvements needed to fully implement the 2040 Growth Concept during the 20-year planning period, and keep pace with forecasted growth in the region. This system contains many "placeholder" projects, where a specific transportation need is identified, but more work is needed to develop refined projects or programs that serve the identified need. The preferred system meets all of the performance measures included in Chapter 1 of the plan, and should be used to guide long-range land use and right-of-way planning.

The preferred system also incorporates all of the projects and programs included in the financially constrained and strategic systems, described above. To be eligible for federal funds, a project or program in the preferred system must be amended into the financially constrained system.

~~**Growing smart**~~

Using urban land wisely allows for more cost-effective and efficient provision of road, sewer, water and stormwater systems. Our technical analysis showed that without the 2040 Growth Concept, the region's urban growth boundary would need to be expanded by about 50 percent to accommodate predicted housing and employment growth. This would result in the need for costly extensions of existing transportation and utility systems.

~~**Reducing the need to drive**~~

The 2040 Growth Concept also supports the region's goal of providing jobs and shopping closer to where people live. A diverse and well-designed community provides access to a variety of jobs, shopping and other services from home and reduces the need to drive longer distances.

~~**Expanding transportation choices**~~

More people will walk, take a bus or ride a bike if our transportation system provides safe and convenient opportunities to do so. Focusing new jobs and housing close to restaurants, stores and services makes walking, bicycling and riding public transportation convenient. These travel options allow people who cannot drive, or who choose not to drive, to get where they need to go. Finally, more

households may choose not to own a car, or decline a second car, if there are a number of travel options. Money could be saved that would otherwise be spent on car payments, fuel, insurance and maintenance.

~~**Avoiding sprawl**~~

~~For all these reasons and to reduce sprawl,~~ tThe 2040 Growth Concept encourages effective use of our land. The concept uses transportation investments to encourage economic activity in preferred areas where the region decides future development should occur.

~~**Keeping the economy strong**~~

The region's transportation system plays a critical role in the continued economic health and livability of this region. When planning for how and where development should occur in this region, consideration must be given to existing and future transportation needs. Experience has shown that economic vitality occurs in those areas with the best access. Therefore, it is important that the Regional Transportation Plan strategically invest transportation funds to improve access to and through the areas that need it (e.g., central city, regional centers, industrial areas and facilities where goods move from one transportation mode to another). This means targeting investments in a manner that serves areas where the region has decided future development should occur as part of implementation of the 2040 Growth Concept.

METRO

Attachment 3

Financially Constrained System Performance and Proposed Financial Analysis Revisions to Chapter 5

CHAPTER 5

Growth and the Strategic System

5.0 Introduction

The financial analysis in Chapter 4 shows a dramatic shortfall in ~~our~~ the region's ability to fund the 2020 Preferred system identified in Chapter 3, with needed improvements costing ~~four~~ more than three times ~~our~~ the current revenue projections. The shortfall has profound implications for the region's ability to keep pace with growth, and begin implementing the 2040 Growth Concept. The shortfall ~~is not limited to gas tax revenue, and~~ could affect all aspects of the ~~Preferred~~ regional transportation system, ~~included~~ in particular limiting the region's ability to expand~~ed~~ existing roadways, transit service ~~and~~ as well as adequately serve ~~improvements to~~ the region's pedestrian, bicycle and freight needs ~~systems~~.

For the purpose of evaluating the impact of funding limitations on our ability to provide needed improvements, this chapter includes a~~n Existing Resources~~ Financially Constrained System analysis. The Financially Constrained System also serves as the basis for complying with federal planning and air quality regulations. In this scenario, the scale of the system is limited to approximately $2.9 billion~~$970 million~~, which includes existing and proposed funding sources that can reasonably be expected to be available for transportation uses during the 20-year plan period.[1] ~~the current 20-year capital projection~~. This includes $900 million of federal transit money that may only be used to expand the light rail system beyond the Interstate Avenue light rail project.

With expected revenue, the financially constrained system is not adequate to meet the region's 20-year transportation needs. The analysis of this ~~Existing Resource~~ Financially Constrained network shows an unacceptable level of congestion, with accompanying impacts on the region's ability to ~~focus~~ adequately serve expected growth in centers and maintain adequate access to intermodal facilities and industrial areas. ~~This chapter is an attempt to balance these current funding limitations against expected transportation needs.~~ As a result, the 2020 Strategic System was developed. The ~~purpose of the~~ 2020 Strategic System includes ~~is to identify~~ the most critical improvements needed to implement the 2040 Growth Concept. It is not intended to fully meet the region's 20-year needs identified in Chapter 3 as the "preferred" system, but is adequate given current funding limitations. However, the "strategic" system of projects described in this chapter would still require a major increase in transportation funding. The resulting strategic system would serve most of our transportation needs during the next 20 years, but many needs would ~~be~~ remain unmet, particularly in developing areas near the urban fringe and on minor routes, underscoring the importance of exploring new and innovative funding strategies for addressing the region's transportation needs.

Therefore, while the 2020 Preferred System is a full statement of need, the 2020 Strategic System is a statement of the highest priority need, given current transportation funding constraints, which includes a modest increase of existing resources. Section 5.4 of this chapter describes ~~three~~ four possible revenue ~~strategies~~ concepts to address the funding needs of the 2020 Strategic

[1] See Appendix 4.0 for more detail on the revenue assumptions used to develop the financially constrained system.

System. The accompanying subarea maps show the proposed strategic system projects and programs in detail. A ~~comparison~~ summary of the projects included in the Preferred, ~~and~~ Strategic and Financially Constrained systems ~~projects~~ is shown in Appendix 1.1. ~~The Strategic System analysis in this chapter evaluates the impact of withdrawing "preferred" improvements from the planned 2020 network on access to centers, industrial areas and intermodal facilities.~~

This chapter is organized as follows:

Effects of Growth on the ~~Existing Resources~~ Financially Constrained System: This section evaluates the performance of the Financially Constrained System ~~regional transportation~~ system and the corresponding impact on implementation of the 2040 Growth Concept on a regional and sub-region basis. ~~assuming no new revenue sources during the 20-year plan period~~. For RTP Analysis purposes, the ~~existing resource~~ financially constrained system was defined to provide a benchmark transportation scenario to compare with the 2020 Preferred and Strategic systems and demonstrate that current transportation funding is not adequate to serve this region's 20-year transportation needs. The Financially Constrained System also serves as the basis for complying with federal planning and air quality regulations.

Proposed Strategic System Improvements for 2020: This section provides an overview of the process and principles used to identify the 2020 Strategic System and generally describes the types of projects and programs included in that system.

2020 Strategic System Analysis: This section evaluates the performance of the 2020 Strategic System on a regional and sub-region basis, emphasizing major corridors that performed differently when compared to performance of the 2020 Preferred System.

Possible Revenue Strategies for 2020: This section describes three possible revenue strategies to address the funding needs of the 2020 Strategic System. One strategy focuses on increasing traditional sources of revenue. A second strategy focuses on growth-related sources of revenue, and emphasizes increasing development-based revenues to pay for transportation needs. The third strategy reflects a combination of the first two strategies and other sources of revenue.

5.1 Effects of Growth on an ~~Existing Resource~~ Financially Constrained System

5.1.1 ~~Existing Resource~~ Financially Constrained System Defined

The ~~existing resource~~ financially constrained system is a 20-year transportation scenario that assumes existing and proposed funding sources that can reasonably be expected to be available for transportation uses during the 20-year plan period[2] ~~no new sources or major increases in revenue.~~ It is required by federal transportation planning regulations and constitutes the federally recognized plan. The purpose of defining a financially constrained ~~an existing resource~~ system is to provide a benchmark transportation scenario that will be compared with the 2020 Strategic and Preferred systems as part of the RTP analysis. As noted, this system also demonstrates that current transportation funding is not adequate to serve this region's 20-year

[2] See Appendix 4.2 for more detail on the revenue assumptions used to develop the Financially Constrained System.

transportation needs, and is used to determine conformity with federal planning and air quality regulations.[3]

~~This system represents just one example of how limited revenues might be spent in this region for the purposes of analyzing the impact of no new revenue on operation of the regional transportation system over the next 20 years. Other methods of spending limited transportation revenue would produce equally congested results.~~

~~It is important to note that the existing resource scenario is not intended to represent a regional policy statement of where transportation improvements should be directed if no new revenue sources are identified. Likewise, this scenario does not reflect local discussions of local priorities and should not be used to make a determination of local priorities. This scenario is one example of how limited transportation revenue would affect implementation of the 2040 Growth Concept.~~

During the 20-year plan period, approximately ~~$970 million~~ $2.9 billion in forecasted revenue was allocated for ~~road-related~~ capital improvements.~~[4] Because~~ This amount represents a major shortfall when compared to ~~identified long-term~~ the cost to implement the needs identified in the preferred system in Chapter 3.~~,~~ As a result, the financially constrained system does not attempt to address all transportation needs ~~current deficiencies – in effect, allocating 20 years of revenue toward immediate needs~~. Instead, the ~~is existing resource~~ financially constrained system attempts to focus ~~this~~ limited revenue in key 2040 design types throughout the region, including the central city, industrial areas and intermodal facilities and regional and town centers. Other considerations in developing the financially constrained system focused on prior commitments or previously highly ranked projects, smaller, key phases of larger projects and projects that would help complete the bicycle, pedestrian, transit, motor vehicle and freight systems identified in Chapter 1 of this plan. ~~areas that already have substantial transportation infrastructure in anticipation that future growth will be best accommodated in these places. These are generally areas with excellent freeway and arterial street access and major transit investments. Figure 5.1 shows the areas of the region targeted with limited transportation investments as part of this analysis.~~

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[3] See Appendix 4.1 for detail on the air quality conformity background and findings of compliance with federal planning regulations.

~~[4] See Chapter 4, Section 4.1 for more detail on existing revenue sources.~~

~~*Figure 5.1*~~
~~**Existing Resources System Map**~~

(Deleted)

~~Source: Metro~~

~~As shown in Figure 5.1, this area is defined as the east/west corridor stretching from Hillsboro to Gresham. The schematic identifies a number of centers, industrial areas and intermodal facilities within this area that will be critical to accommodating compact growth while minimizing the expansion of the urban area. In this corridor, regional centers and the central city are already served by light rail, and most centers have good highway access. Most of the region's industry and intermodal facilities are also located in this corridor, and are equally well served by existing transportation infrastructure. The existing resource system includes projects and programs that would support the ability of these areas to absorb continued growth and maintain their economic vitality.~~

~~However, focusing limited resources in this east/west corridor comes at the expense of other growing areas in the region. The implication of focused spending is that other areas will be less able to accommodate compact growth, and existing transportation facilities in these other areas will be heavily impacted by increased travel demand.~~[5]

5.1.2 Regional Performance[6]

Chapter 2 described expected travel demand for the year 2020 based on implementation of the 2040 Growth Concept and predicted population and employment. In summary, population and employment is expected to increase by 46 percent and 68 percent respectively between 1994 and 2020 within the urban growth boundary. This growth is expected to result in a corresponding increase in travel demand during the same time period. The increase in travel throughout the region is expected to have a significant impact on the performance of the regional transportation system. Overall, the ~~existing resources~~ financially constrained system is expected to result in ~~more~~ slightly less vehicle miles traveled than the preferred system~~, as shown in~~ Table 5.1 shows expected growth in travel within the urban growth boundary.

Though the ~~Existing Resource~~ Financially Constrained System was developed with an emphasis on ~~projects~~ serving ~~in~~ key 2040 Growth Concept centers and industrial areas and intermodal facilities, ~~areas where existing infrastructure is most able to absorb future growth~~, the travel demand in these areas ~~still~~ is expected to exceeded the ability of proposed motor vehicle and transit improvements to accommodate growth. The ~~east/west~~ motor vehicle system is expected to be very congested during the evening two-hour peak period, exceeding regional motor vehicle performance standards on most principal arterial routes, including the Banfield Freeway west of I-205, portions of the Sunset Highway, Highway 217, Interstate 5 and Interstate 205. Many major arterial routes throughout the region are also expected to experience significant congestion during the evening two-hour peak period, limiting access to the Gresham, Gateway, Oregon City, Clackamas, Beaverton and Hillsboro regional centers. Though the financially constrained transit system carries heavy volumes in the Eastside and Westside light rail corridors, congestion on

~~[5] See Appendix 1.5 for more detail on projects and programs assumed in the Existing Resource System.~~

~~many arterial routes~~ would significantly impact bus service on parallel arterial routes during the evening two-hour peak period.

~~Overall, the existing resources financially constrained system is expected to result in more slightly less vehicle miles traveled than the preferred system, as shown in Table 5.1.~~

Table 5.1

2020 ~~Existing Resources~~ Financially Constrained Systems Vehicle Miles of Travel[7]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System	Difference Preferred and ~~Existing Resources~~ Financially Constrained Systems
Average weekday vehicle miles traveled	16,112,462	~~24,061,990~~	~~24,263,742~~	~~+1%~~
		24,049,650	24,041,362	-<1%
Average weekday vehicle miles traveled per person	14.10	~~14.44~~	~~14.56~~	~~+1%~~
		14.43	14.43	<1%
Average weekday vehicle miles traveled per employee	20.36	~~18.12~~	~~18.27~~	~~+1%~~
		18.11	18.10	-<1%

1 Within Metro urban growth boundary (excludes Clark County, Wash. and areas of Clackamas, Multnomah and Washington counties outside of the Metro urban growth boundary).

Source: Metro

Motor Vehicle System Performance

Like the preferred system, delay on the region's freeway and arterial street networks is also expected to increase between 1994 and 2020, with the greatest amount of delay predicted to occur on the arterial street network. Assuming implementation of the ~~existing resource~~ financially constrained system, ~~23.5~~ 20.3 percent of the region's arterial streets are expected to experience congestion during the evening two-hour peak period. In comparison, in the preferred system, slightly ~~more~~ less than ~~15~~ 14 percent of the region's arterial streets are expected to experience congestion during the evening two-hour peak period.

If the ~~existing resources~~ financially constrained system is implemented, the proportion of the region's freeway network experiencing congestion during the evening two-hour peak period is expected to increase from 15 percent to ~~35.8~~ nearly 39 percent between 1994 and 2020. In contrast, assuming implementation of the preferred system, the proportion of the region's freeway network experiencing congestion during the evening two-hour peak period is expected to be lower, at ~~28.6~~ 28.7percent.

Freeways in the ~~existing resources~~ financially constrained system are expected to experience slightly more than 1.5 times the amount of motor vehicle hours of delay as freeways in the preferred system. Likewise, arterial streets in the ~~existing resources~~ financially constrained

[7] Based on Appendix 1.2: System Performance Measures for Intra-UGB Trips~~, dated 11/1/99~~.

system are expected to experience almost twice as much motor vehicle hours of delay as arterial streets in the preferred system.

As a result of the significant increase in trip-making region-wide, average motor vehicle speeds are expected to decrease from 25 mph in 1994 to 19 mph in 2020 during the evening two-hour peak periods, assuming implementation of ~~existing resources~~ financially constrained system improvements. Average motor vehicle speeds are expected to be 22 mph in the 2020 Preferred System during the evening two-hour peak period. Table 5.2 compares the preferred and ~~existing resources~~ financially constrained systems, summarizing the differences in the amount and extent of congestion within the Metro urban growth boundary.

Table 5.2
2020 ~~Existing Resources~~ Financially Constrained System Motor Vehicle System Performance[1]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System
Average motor vehicle speed	*25 mph*	*22 mph*	*~~19~~ 20mph*
Average motor vehicle travel time	*11 minutes*	*~~13~~12 minutes*	*~~14~~13 minutes*
Percent of freeway miles experiencing congestion (v/c >0.9)	*14.9%*	*~~28.6~~28.7%*	*~~35.8~~38.6%*
Percent of arterial street miles experiencing congestion (v/c >0.9)	*6.0%*	*~~15.3~~13.7%*	*~~23.5~~ 20.3%*
Total motor vehicle hours of delay (v/c >0.9)	*~~7,509~~7,764*	*~~34,280~~33,102*	*~~59,011~~51,496*
Motor vehicle hours of delay on freeway (% of total)	*~~2,441 (1.91%)~~*	*~~10,182 (4.4%)~~*	*~~15,480 (5.8%)~~*
	2,325 (1.8%)	*9,684 (4.4%)*	*13,746 (5.6%)*
Motor vehicle hours delay on arterial streets (% of total)	*~~5,068 (3.97%)~~*	*~~24,098(10.4%)~~*	*~~43,531(16.4%)~~*
	5,439 (4.3%)	*23,418 (10.6%)*	*37,750 (15.4%)*

1 Based on evening two-hour peak period. Within Metro urban growth boundary (excludes Clark County, Wash. and areas of Clackamas, Multnomah and Washington counties outside of the Metro urban growth boundary).

Source: Metro

Alternative Mode Performance

Drive-alone trips as a percentage of all person trips are expected to decrease by ~~less~~ slightly more than one percent between 1994 and 2020, assuming implementation of the ~~existing resources~~ financially constrained system. By comparison, bicycle and pedestrian travel are expected to increase between 1994 and 2020. In 1994, bicycling or walking (not including walk trips to transit) represented slightly more than 6 percent of all person trips inside the urban growth boundary. By 2020, bicycle and pedestrian travel is expected to represent almost 8 percent of all person trips made inside the urban growth boundary, similar to the preferred and strategic systems.

Transit service hours are expected to increase by 45 percent~~almost double~~, increasing from ~~4,426~~ 4,400 hours in 1994 to more than 8,406 hours in 2020. Transit ridership is expected to increase by ~~26~~ 40 percent, representing ~~almost 4.5~~ more than 5 percent of all person trips in the region by

2020. The number of average weekday transit trips is expected to ~~increase by 96 percent~~ more than double between 1994 and 2020, increasing from 172,~~464~~ to more than ~~339,000~~ 387,000 transit trips. In comparison, ridership in the preferred system is expected to more than triple as a result of expanded transit service and transit capital improvements. The proportion of households and jobs within 1/4-mile of transit service is expected to decline by ~~6~~ 7 percent and ~~5~~ 4 percent respectively between 1994 and 2020, assuming implementation of the ~~existing resources~~ financially constrained system. In contrast, with the preferred system the proportion of households and jobs within 1/4-mile of transit service is expected to increase by 7 percent and 3 percent respectively between 1994 and 2020. Table 5.3 compares alternative mode performance between the preferred and ~~existing resources~~ financially constrained systems within the Metro urban growth boundary.

Table 5.3

2020 ~~Existing Resources~~ Financially Constrained System Alternative Mode Performance[1]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System
Walk trips (as a percent of total person trips)	*5.18%*	*6.81%*	*6.79%*
Bike trips (as a percent of total person trips)	*.97%*	*1.25%*	*1.17%*
Transit trips (as a percent of total person trips)	*3.55%*	*7.32%*	*~~4.47~~5.11%*
Average weekday transit trips (originating rides)	*172,464*	*551,757*	*~~339,205~~387,527*
Average weekday transit revenue hours	*4,400*	*13,836*	*~~8,406~~6,402*
Percent of households within 1/4-mile of transit	*78%*	*83%*	*73%*
Percent of jobs within 1/4-mile of transit	*86%*	*88%*	*~~81~~82%*

1 Within Metro urban growth boundary (excludes Clark County, Wash. and areas of Clackamas, Multnomah and Washington counties outside of the Metro urban growth boundary).

Source: Metro

Freight System Performance

Trucks are a critical part of moving goods within the Portland metropolitan region. Of the total goods moving into, out of and within the region, 62 percent complete all or part of the trip by truck. Other modes that move goods are barge, rail and air. In 1994, the region handled more than 17,000 truck trips daily. This number is expected to grow by nearly than 18,000 truck trips daily, representing an increase of 32 percent between 1994 and 2020. Truck hours of delay are expected to increase by more than eight-fold during the evening two-hour peak period between 1994 and 2020, assuming implementation of the ~~existing resources~~ financially constrained system. This represents a change from 4 percent of truck hours experiencing delay in 1994 to more than~~18~~ 17 percent of truck hours experiencing delay during the evening two-hour peak period.

In contrast, assuming implementation of the preferred system, truck hours of delay are expected to increase by more than five-fold during the evening two-hour peak period between 1994 and 2020. This represents a change from 4 percent of truck hours experiencing delay in 1994 to nearly 13 percent of truck hours experiencing delay during the evening two-hour peak period. Table 5.4 summarizes key freight system statistics, assuming implementation of the ~~existing resources~~ financially constrained system, and compares performance of the ~~existing resources~~ financially constrained system with the preferred system.

Table 5.4

2020 ~~Existing Resources~~ Financially Constrained System Freight System Performance[1]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System
AWD total truck trips	*54,598*	*72,118*	*72,118*
AWD truck average trip length (miles)	*22.64*	*23.90*	*23.96*
Two-hour peak period truck vehicle hours of delay	*130*	*~~732~~713*	*~~1,142~~1,026*
Two-hour peak period average truck travel time	*36.53*	*~~43.28~~42.86*	*~~47.33~~45.90*

Note: This summary of freight system performance reflects Metro's regional truck travel forecasting model.

1 Within the four-county region, includes Clark, Clackamas, Multnomah and Washington counties.

Source: Metro

5.1.3 Subarea Performance

Significant congestion will remain on the regional transportation system, assuming implementation of the Financially Constrained System. As a result, the 2020 Financially Constrained System does not adequately meet the overall travel needs of the Portland metropolitan region for the next 20 years.

This section summarizes the performance of proposed 2020 Financially Constrained System improvements on the regional transportation system by RTP Subarea. The discussion focuses on an evaluation of the overall impact of certain improvements on access to the central city, regional centers, industrial areas and intermodal facilities.

Subarea 1: West Columbia Corridor

Industrial areas and intermodal facilities represent the majority of land-use types in this subarea. As primary land-use components in the 2040 Growth Concept, these areas in the West Columbia Corridor subarea are a focus of most financially constrained system improvements. Exceptions include several seismic retrofit projects and an interchange improvement at 33rd Avenue on Northeast Portland Highway. The financially constrained system assumed limited improvements to I-5 North corridor that included an extension of light rail to Clark County, Wa., widening I-5 North to three lanes in each direction from Lombard Street to the Expo Center and a smaller phase of ramp improvements to I-84 at Greeley Avenue.

Other improvements assumed for this subarea include a light rail extension to the Portland International Airport, capacity improvements to key arterial streets and freight rail lines that access industrial areas and intermodal facilities, system management strategies on arterial streets, bicycle and pedestrian improvements and the establishment of transportation management associations.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system perform comparably to the strategic system, largely because the two systems are nearly identical in terms of the assumptions for the West Columbia Corridor subarea, with the exception of I-5 North. I-5 North experiences more congestion in the financially constrained system when compared to the strategic system, reflecting limited improvements to the corridor. Other areas of significant congestion are in the vicinity of Portland International Airport, along Alderwood Road, Marine Drive and Northeast Portland Highway from 33rd Avenue to I-205. A number of new connections and capacity improvements are assumed in the vicinity of Portland International Airport.

Transit service in the West Columbia Corridor subarea is mostly limited to bus and light rail service to Portland Airport. Transit coverage in this subarea did not vary much from the strategic system, although both bus and light rail service are less frequent. Transit ridership to and from the subarea is expected to be somewhat lower than the strategic system, as a result. New and existing transportation management associations are expected to benefit the overall function of the transportation system in this subarea.

Subarea 2: Portland Central City and Neighborhoods

This subarea is centered on the Portland central city. As a primary land-use component in the 2040 Growth Concept, the Portland central city is a focus of many financially constrained system improvements, with many strategic system projects represented in the financially constrained network. Examples of projects not included in the financially constrained system include: I-5 access improvements from Macadam and the Central Eastside Industrial District, Belmont Avenue ramp improvements, some eastside bikeways, some traffic management enhancements, several seismic retrofit projects, pedestrian access-to-transit projects along outer-eastside mainstreets such as Division Street and 82nd Avenue and bikeways connecting southwest Portland neighborhoods to adjacent town centers.

Transit coverage in this subarea did not vary significantly from the strategic system, although both bus and light rail service are less frequent. Transit service in this subarea is mostly limited to regional bus service and light rail, extending north to the Portland Metropolitan Exposition (Expo) Center and south to the Milwaukie regional center from the Rose Quarter transit center, and then potentially to Clark County, Wash. The central city street car was extended to the North Macadam area in the financially constrained system. Overall, transit ridership to and from the subarea is expected to be somewhat lower than the strategic system as a result of the reduced bus and light rail service.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the strategic system. In particular, all radial principal arterial corridors exceed the level-of-service policy established in Chapter 1, including I-405, I-5 North, I-5 South, I-84 and US 26. System management strategies, transportation management associations and improvements to the regional bike and pedestrian systems represent a higher percentage of financially constrained system projects within this subarea as a means to provide adequate alternatives to the congested motor vehicle system. Bicycle access to the Portland central city and southwest town centers would likely be affected on major routes like Barbur Boulevard, Macadam Avenue and Powell Boulevard as a result of several southwest Portland bikeways being not included in the financially constrained system.

Without light rail service improvements to the Highway 99E/224 corridor, there is not an adequate alternative to congestion during the evening-two hour peak period. Highway 224 experiences more congestion in the vicinity of the Ross Island and Sellwood bridges in the financially constrained system when compared to the strategic system during the evening two-hour peak period. Similarly, Barbur Boulevard and I-5 south of I-405 are expected to experience significantly more congestion than the strategic system without an adequate high-capacity transit alternative in the Barbur Boulevard corridor.

Maintenance and preservation of the Willamette River Bridges is expected to fall behind given the funding limitations of the financially constrained system; this could have significant impacts on access to the Portland central city by all modes of travel.

Subarea 3: East Multnomah County

The Gresham and Gateway regional centers and the east Columbia Corridor industrial area are included in this subarea. As primary land-use components of the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements. Examples of projects located outside of these areas that were not included in the financially constrained system include: widening I-84, improvements to I-205, multi-modal retrofits of arterial streets , localized capacity improvements to address significant bottlenecks on Division Street (east of 257th Avenue), 162nd, 201st, Halsey, Glisan, Palmquist and Orient roads and connectivity improvements in the east Columbia Corridor industrial area. Transit service in the East Multnomah County subarea included regional bus service and light rail. Transit coverage in this subarea did not vary from the strategic system, although both bus and light rail service are less frequent and there are fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic systems. In particular, I-205, Powell Boulevard and north/south arterial streets that access I-84. The level of congestion on the motor vehicle network does not significantly affect access to the Gresham regional center because assumed transit service and multi-modal retrofits of existing streets provide alternatives. Travel demand from developing areas south of Gresham regional center is expected to cause Division Street, Powell Boulevard and Foster Road to experience significant congestion during the evening two-hour peak period.

In contrast, Gateway experiences significant spillover traffic from the Banfield Freeway corridor. As a result, a number of east/west corridors in the Gateway area, including Halsey, Glisan, Burnside, Stark and Division streets experience more congestion in the financially constrained system as compared to the preferred and strategic systems during the two-hour peak period.

In addition, access to the South Shore industrial areas will likely be affected by not constructing the Marine Drive extension, 207th Extension, Sandy Overpass, I-84/Troutdale interchange, and capacity improvements to 162nd and 201st avenues. As a result, travel demand is expected to shift to other routes such as 181st and 223rd avenues.

System management strategies, transportation management associations and improvements to the regional bike and pedestrian systems represent a higher percentage of financially constrained system projects within this subarea as a means to provide adequate alternatives to the congested motor vehicle system.

Subarea 4: Damascus/Pleasant Valley

The Damascus/Pleasant Valley urban reserve areas represent the majority of land uses in this subarea. As a result, most financially constrained system improvements for this area focused on developing a modest base street network to serve planned urbanization in this part of the region. Performance of the financially constrained system in the Pleasant Valley/Damascus area varies significantly from the preferred and strategic systems, largely due to the lack of an adequate street network to serve planned urbanization in this part of the region. In addition, due to

funding limitations the financially constrained system assumed only Phase 1 of the Sunrise Corridor principal arterial connection, modest capacity improvements to arterial streets, including Foster Road, 172nd Avenue and Sunnyside Road, and modest improvements to the regional bicycle system. Examples of projects not assumed in the financially constrained system to serve this subarea include: a project to widen 242nd Avenue from Gresham regional center to Highway 212, regional bus service expansion, a number of surrogate collector and arterial street network and implementation of a transportation management association.

Transit service in this subarea includes regional bus service that connects to Clackamas and Gresham regional centers. Transit coverage in this subarea was also significantly less in the financially constrained system when compared to the preferred and strategic systems, and both bus and light rail service were less frequent.

Financially Constrained System Performance

Despite modest capacity improvements to most existing arterial streets in this subarea, the motor vehicle system experiences significantly more congestion than the preferred and strategic systems during the two-hour peak period. In addition, differences in the surrounding Multnomah and Clackamas county networks are expected to affect access to the Damascus and Pleasant Valley areas from the rest of the region. In the financially constrained system, scaled-back improvements to I-205 are expected to make travel in and out of Clackamas County more difficult, which is compounded by the job/housing imbalance between Clackamas County and adjacent subareas to the north and west.

Arterial routes like Foster Road, Sunnyside Road and 182nd Avenue that connect the Damascus-Pleasant Valley area to employment centers outside of Clackamas County are expected to be very congested in the financially constrained system during the evening two-hour peak period. In terms of access to Multnomah County, the lack of a collector and arterial street network north of Foster Road and expected congestion along Foster Road are expected to make travel in and out of Multnomah County more difficult and result in diversion of traffic onto other rural routes. Furthermore, the level of transit service assumed for this area is not expected to provide an adequate alternative to peak hour congestion.

Subarea 5: Urban Clackamas County

The Clackamas and Oregon City regional centers and the Clackamas industrial area are included in this subarea. As primary land-use components in the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements and many strategic system projects are represented in the financially constrained network. Key improvements like adding capacity to I-205, Highway 224, the Sunrise Corridor and high-capacity transit to Clackamas and Oregon City regional centers are not retained in the financially constrained system. Transit service in this subarea includes regional bus service and light rail, from the Rose Quarter transit center to the Milwaukie town center. A light rail extension from Milwaukie to Oregon City and Clackamas regional centers is not included in the financially constrained system. Transit coverage and service in this subarea varied significantly from the preferred and strategic systems, including less frequent bus and light rail service and fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Overall, motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic system. The urban Clackamas County transportation system is already overburdened in the preferred and strategic systems, due to the heavy concentration of urban reserves adjacent to and within this subarea. In addition, a lack of improvements to the arterial and collector street network results in congestion during the evening two-hour peak period on major routes, like Sunnyside Road, 82nd Avenue and McLoughlin Boulevard. This significant congestion is further compounded by not including I-205 and Highway 99E/224 capacity improvements or adequate transit alternatives for these principal and major arterial corridors in the financially constrained system. This has a dramatic effect on both arterial routes and parallel routes, since the job/housing imbalance in urban Clackamas County results in a strong north/south demand between this subarea and the employment areas located in the Portland central city and East Multnomah County subareas. Several bottlenecks in the Clackamas industrial area result when improvements to freight access routes like Jennifer Street, 82nd Drive and Highway 213 are not included. These changes affect access to the industrial area from the rest of the region.

Access to the Oregon City regional center also is expected to be limited by extensive congestion along I-205 and the street network south of the Clackamas River and East of the Willamette River, including Highway 213, Molalla Avenue and Beavercreek Road. Urban reserve areas to the south of Oregon City are also expected to impact access to the regional center as planned growth in these areas cannot be adequately served by proposed improvements to Highway 213.

Most bicycle and pedestrian improvements assumed in the financially constrained system are limited to regional and town centers thus limiting bicycle and pedestrian access along major corridors that connect these centers. System management strategies, transportation management associations and improvements to the regional bike and pedestrian systems represent a higher percentage of financially constrained system projects within this subarea as a means to provide alternatives to the congested motor vehicle system.

Subarea 6: South Washington County

Washington Square regional center and the Tualatin industrial area are included in this subarea. As primary land-use components in the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements. Examples of projects located outside of these areas that were not included in the financially constrained system include: I-5/99W Connector, widening 99W, bike and/or pedestrian improvements in town centers, and several collector and minor arterial connectivity and capacity improvements in Tigard and Wilsonville town centers.

Transit service in this subarea includes regional bus service and peak-hour only commuter rail service connecting Wilsonville to Beaverton. Transit coverage in this subarea varied significantly from the preferred and strategic systems. Transit coverage and service in this subarea varied significantly from the strategic system, including less frequent bus and light rail service and fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic systems during the evening two-hour peak period. Absence of the I-5/99W Connector is expected to divert traffic onto 99W, Tualatin-Sherwood Road and other rural routes. This in turn is expected to impact access to regional and town centers within the subarea. Local circulation and access to Tigard town center is limited by significant congestion along 99W in the financially constrained system during the two-hour peak period. Highway 217 in the vicinity of Washington Square regional center and I-5 south of Kruse Way are expected to experience significant congestion. Commuter rail between Wilsonville and Beaverton and transit service along the Barbur Boulevard corridor do not provide adequate alternatives to congestion in this part of the region. Highway 217 experiences significant congestion in some sections in the vicinity of Washington Square regional center during

Most bicycle and pedestrian improvements in the financially constrained system are limited to regional and town centers thus limiting bicycle and pedestrian access along major corridors that connect these centers. A relatively strong program of transportation management associations is expected to provide some benefits to the transportation system.

Subarea 7: North Washington County

Beaverton and Hillsboro regional centers and the Sunset industrial area are included in this subarea. As primary land-use components in the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements. Several strategic system projects are not included in the financially constrained system, including capacity improvements to US 26 west of Murray Boulevard, portions of Walker Road and arterial streets north of US 26. Bike and/or pedestrian improvements along Walker Road, Denney Road, Springville Road, Western Avenue, Canyon Road, Baseline Road, Allen Boulevard and Tualatin Valley Highway were also not included. Most bicycle and pedestrian improvements assumed in the financially constrained system are limited to projects that also add road capacity.

Transit service in this subarea includes regional bus service, peak-hour only commuter rail service connecting Wilsonville to Beaverton and light rail. Transit coverage and service in this subarea varied significantly from the preferred and strategic systems, including less frequent bus and light rail service and fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Overall, motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic systems during the evening two-hour peak period. In particular, sections of US 26 and Walker Road near the Sunset industrial area are expected to experience significant congestion during the evening two-hour peak period. In addition, Tualatin Valley Highway, Beaverton-Hillsdale Highway, Farmington Road, Jenkins Road, portions of Murray Boulevard, Scholls Ferry Road and West Union Road experience significant congestion in the financially constrained system during the evening two-hour peak period. Bus transit service does not provide an adequate alternative to this congestion.

Highway 217 between Beaverton and Washington Square regional centers is expected to experience in part due to the amount of local trips using Highway 217 to access the regional centers. Local connectivity improvements assumed in downtown Beaverton provide some alternatives to congestion on major arterials entering Beaverton regional center. Commuter rail

service does provide an alternative to this congestion for some types of trips, but better bus feeder service is needed. A relatively strong program of transportation management associations is expected to provide some benefits to the transportation system.

Section 5.3 remains unchanged from Resolution No. 99-2878B (December 16, 1999)

5.4 Strategic System Financing

5.4.1 Principles for Funding the Strategic System

Funding the 2020 Strategic System will require additional revenue sources. The following is an illustrative list of principles that should be evaluated when elected officials and others consider a strategy for pursuing additional revenue sources. The principles are not exclusive of one another; there will be a dynamic tension between competing principles. It will be up to decision-makers to balance these natural tensions in adopting a financial strategy. Additional principles may also be developed as further work is completed on a funding strategy for the 2020 Strategic System as outlined in section 6.8.14.

Adequacy

- *Adequacy in addressing funding shortfall.* A new source should make a significant contribution to the funding shortfall identified in this RTP.

- *Fee revenue should grow with increased use and inflation.*

- *Source of fee revenue should contribute to diversity of transportation revenue sources for overall stability of funding.* A revenue source should not be vulnerable to the same variable conditions, such as fuel efficiency or economic slowdowns, as existing transportation revenue sources.

Flexibility

- *Projects/programs supported should encourage public/private partnerships.* Fees should allow spending on projects that leverage private investments that produce transportation benefits.

- *Fee revenue should be flexible with ability to address changing transportation priorities.* Fees should allow spending on whichever transportation project is the priority for the implementing jurisdiction.

- *Existing flexible funding (STP, CMAQ and Enhancement funds) should remain flexible and available for any eligible priority project.* The region should continue to advocate to Congress to maintain the flexibility of these funds when applied to regional priorities and not dedicate this funding to any particular type or mode of transportation improvement.

Fairness

- *Fee related to use.* Fees paid should be related to use or beneficiaries of the improvements or maintenance. The gas tax costs drivers more the more they drive but does not address differences in fuel efficiency between drivers nor does it address whether the driver is using the system at congested periods of the day. System development charges (SDC's) are a method of charging growth for its effect on the transportation system. While there will always be baseline charges everyone pays for the benefits everyone receives from having a transportation system, fees should provide the capacity to increase or decrease relative to the use of or impact to the transportation system.

- *Fee should have equitable geographic burden relative to area of benefit.* Maintaining access through the region and to regional facilities should receive fee contributions from throughout the region. Transportation facilities that only serve sub-regional or local purposes should be funded from sub-regional or local resources.

- *Fee should not unduly burden low and fixed-income populations.* While fees should provide capacity to increase or decrease with use of the transportation system, the sliding scale of transportation costs should recognize the burden that large, irregular charges pose to persons on fixed or limited incomes. Alternatives to these charges, such as alternative or reduced payment options or equitable transportation services, should be provided. An evaluation of new revenues should also include an analysis of the overall affordability of transportation fees for low and fixed income households.

Implement Policy Objectives

- *Fees should support 2040 land use objectives.* New fees should be evaluated for potential effects on 2040 land use goals. For example, fees should not provide a disincentive for developing in Centers or promote development in rural areas.

- *Fees should help the region meet mode-split targets.* New fees should help the region meet mode-split targets by providing relative cost advantages to alternative modes to the single occupant vehicle.

Address Public Accountability

- *Fees generated able to support identifiable projects with tangible benefits.* Fees should have the capacity to allow policy makers the ability to clearly define the relationship between the payment of the fee and the projects and/or maintenance to be provided. This capacity will allow policy makers to educate the public about the benefits of the transportation improvements provided relative to the fees paid.

5.4.2 Potential New Revenue Sources

This section provides a description of revenue sources currently in use in the Metro region that could provide additional revenue as well as new sources of revenue that have been recently

studied as potential sources of transportation funding. These revenue sources are divided into four broad categories: user-pay systems, development-based systems, special funds and levies and other transportation financing options. Additional sources of transportation funding may be considered as policy-makers develop a long-term transportation funding strategy for this region.

User Pay Systems

- **Increase in State gas tax.** Under current rates of distribution of state gas taxes, an additional 1 cent in the state gas tax would initially result in an additional $5 million annually for the regional road system and an additional $3.9 million annually for the state highway system within the Metro area. By the year 2020, that same one cent increase would result in an additional $6 million for the regional road system and $4.6 million for state highways in the Metro region.

- **Increase in State vehicle registration fee.** An increase in the state vehicle registration fee would result in an additional $92 million in year of expenditure dollars for highway capital projects and $86 million in year of expenditure dollars for road capital projects during the 20-year plan period in the Metro region.

- **Tri-county gas tax.** Revenue could be created for transportation maintenance or capital projects with a uniform gas tax in Clackamas, Multnomah and Washington counties. Raising the tax in Clackamas and Washington counties to equal Multnomah County's 3 cents per gallon gas tax would create an additional $4.7 million of revenue in the year 2000 for the regional road system, increasing to $6.8 million by the year 2020. Each additional 1 cent per gallon would create an additional $3.7 million of revenue in the year 2000 for the regional system, increasing to $5.4 million by the year 2020.

- **Tri-county vehicle registration fee.** The 1999 Legislature provided each county the ability to raise additional transportation revenues through a local vehicle registration fee of up to $10 per year, by request of the County Commission. If all three Metro area counties implemented this fee, $9.4 million would be available for local roads, in addition to $3.1 million for Willamette River bridges in the year 2000, increasing to $13.3 million and $ 3.5 million respectively by the year 2020. This would result in $408 million in year of expenditure dollars available for capital projects in the Metro region.

  Authority already exists for the three counties or Metro to refer to voters a vehicle registration fee up to the amount of the state vehicle registration fee. At $40 per biennium, approximately $25 million could be raised in the region in the year 2000, increasing to $33.5 million in the year 2020.

- **Peak period pricing.** Electronic tolling of highway use during congested periods can provide some revenues for needed highway expansions. In addition, peak period pricing can manage congestion on new highway lanes, thereby extending their life and reducing the need for future expansions. The Traffic Relief Option Study, undertaken with the guidance of a citizen's task force and completed in 1999 by Metro and ODOT, examined the potential of various types of roadway pricing to meet regional transportation, environmental and land use goals. The citizen's task force recommended that pricing be considered whenever major new highway capacity was planned. The study found that congested roadways had the potential to generate some revenue towards the cost of construction.

The evaluation of the performance of eight specific pricing options is contained in *Working Paper 9* dated May 10, 1999. The study recommended further consideration of peak period pricing on all major, new highway capacity projects. A regional analysis of the effect of this approach to pricing is currently being conducted. Further analysis is recommended as part of individual highway projects.

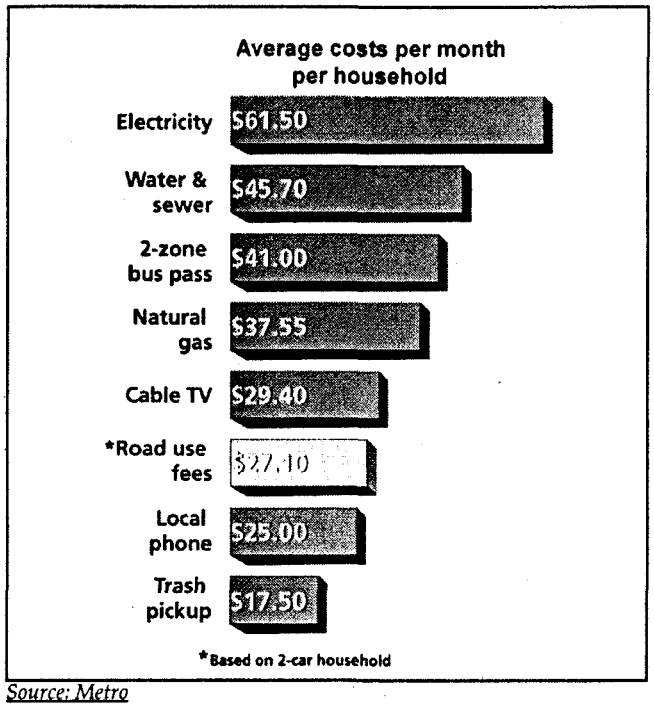
Development-Based Systems

- **Increase in system development charges.** Cooperation among most or all of the jurisdictions of the region to pursue a partial or full cost-recovery strategy for transportation infrastructure with system development charges would result in additional revenues available for transportation purposes. The amount of revenue available would depend on the exact nature of the policy, the number of jurisdictions participating, and the costs of providing infrastructure in each jurisdiction.

Special Funds and Levies

- **Road maintenance fee.** A road maintenance fee is a general assessment of properties for maintenance of the transportation system that serves the property. Figure 4.6 shows that, on average, transportation fees are among the least expensive utilities when compared to other utilities in the Portland metropolitan region. The city of Tualatin has such a system that assesses property by the number of vehicle trips typically generated by the developed use of that property. The fee is collected as a part of the city utility bill. This fee could be implemented by ordinance within any city or county in the Metro region. A road maintenance utility fee similar to Tualatin's, implemented by all of the local jurisdictions on property within the Metro region, could generate approximately $22 million in the year 2000, increasing to $32 million in the year 2020. Rates could be adjusted to collect revenues equal to all or some portion of the cost to maintain each jurisdiction's road system.

Figure 5.
1999 Comparative Utility Costs



Source: Metro

- **Payroll tax rate increase for transit.** A potential source of additional revenue for transit operations would be to raise the rate of the payroll tax for either Tri-Met or SMART. An increase of .1% of the payroll tax rate would raise $21 million annually in the Tri-Met district or approximately $500,000 annually in the SMART district ($1998). Tri-Met's payroll tax rate is limited by state statute.

- **Property tax general obligation bond.** General obligation bonds, backed by property taxes have been used for transportation improvements in the Metro region, especially for capital projects. These taxes must be approved by voters in a general election. A tax of 1 cent per $1,000 of assessed property value would raise $770,000 annually in the Metro region in the year 2000, increasing to approximately $1.5 million by the year 2020. Bonding this revenue stream for capital projects would incur bonding and interest costs but save money on project inflationary costs by constructing the projects earlier than would otherwise be possible.

- **Vehicle Miles Traveled Fee.** A fee on the miles of travel for non-commercial vehicles registered in the three metro counties (or some portion thereof) could be implemented. A fee of 1¢ per mile, indexed to inflation, for residents of the Metro region would generate $1.33 billion over the course of the 2000 - 2020 plan period. The average cost per vehicle would be approximately $10 per month.

- **Parking Fee for non-residential spaces.** A fee for each non-residential off-street parking space could be levied within the Metro region. A fee at the rate of $1 per month per space, indexed to inflation would generate $197 million over the course of the 2000 - 2020 planning period. This total assumes a 10 percent reduction in parking spaces per capita by year 2020 as

a result of parking rations defined in Title 2 of the Urban Growth Management Functional Plan and is consistent with state transportation planning rule requirements.

Other Transportation Financing Options

The Oregon Department of Transportation has recently published the final report of the "Innovative Finance Study," a review of potential new sources of transportation funding. In addition to several of the potential sources described, the study investigated the potential for funding transportation projects with:

- **Value Capture:** private interests compensating a public agency for a portion of the economic value created to the private interest with the creation of the transportation facility

- **State Infrastructure Bank:** A revolving fund that can offer loans and credit assistance to sponsors of certain highway or transit capital projects.

- **Federal Credit - Transportation Infrastructure Finance and Innovation Act:** This act authorizes state transportation departments to provide secured loans, loan guarantees and standby lines of credit to sponsors of certain highway and transit projects.

- **Grant Anticipation Notes:** This allows state transportation departments to generate up-front capital for large capital projects by allowing recovery of interest payments and other bond issue costs on anticipation of receipt of future federal grant monies.

The Metro region, in cooperation with the Oregon Department of Transportation, could pursue these finance options for eligible transportation improvements. Other sources of revenue new to this region could also be considered to fund transportation needs.

5.4.3 Finance Concepts for Funding the Strategic System

The following is a general description of what would be necessary to provide revenues to fund the 2020 Strategic System. A more detailed financial analysis is necessary to accurately identify how much revenue would be raised by increases in existing revenue sources or by the creation of new revenue sources. Further study and engineering is also needed to more accurately estimate the project costs of the 2020 Strategic System.

Each agency or jurisdiction that administers a revenue source has the authority to control the spending of additional revenues from those sources in accordance with any laws governing the revenue source. *The following scenarios are only to illustrate the magnitude of what would be required to fund the 2020 Strategic System. Four possible scenarios for raising the revenues necessary to fund the 2020 Strategic System are described for comparative purposes but do not constitute an adopted financial strategy for the region.*

The Problem

Many jurisdictions in the region have traditionally relied on the State Legislature to increase the state gas tax as a primary means of funding their transportation needs. As such, revenues from the State Highway Trust Fund, which is funded from the state gas tax revenues and related truck fees and vehicle registration fees, has become the primary source of transportation funding for many jurisdictions in the region. The problem the region is facing by relying primarily on this revenue source is that it is subject to two factors that reduce its purchasing power over time; inflation and increasing vehicle fuel efficiency. Therefore, the gas tax cost per mile driven in Oregon (in current $) has decreased from 2.6¢ per mile in 1970 to 1.3¢ per mile today.

This reduction in revenues relative to road use in the state has reduced the ability of ODOT and local jurisdictions to maintain the transportation system at optimum levels and to respond to growth with modernization projects. There is currently a backlog of maintenance work to be completed on both state highways and on the regional arterial and major collector road system. There is a need to not only address this backlog of maintenance needs but to increase fees just to address further reductions in purchasing power of the existing state gas tax revenues which would result in further deterioration of maintenance levels. In addition to maintenance needs, there are highway, road, and transit modernization projects that need funding to address current needs and needs that will be created by the growth of population and jobs in the region. An increase in transit operating revenues will also be needed to address growth in transit service needs in the region.

A major challenge in transportation financing is funding road and highway maintenance and preservation at optimum levels (defined here in general terms as keeping pavement at 90 percent in fair or better condition). To extend the life cycle of existing facilities, transportation agencies generally attempt to achieve this standard as a priority for spending over building new facilities that would then add to future maintenance and preservation costs. On average, most agencies in the region have only been able to maintain pavement condition at approximately 77 percent fair or better condition. This has created a backlog of maintenance needs. The first three funding concepts below address this backlog and fully fund maintenance and preservation costs, in addition to new capital projects. The fourth funding concept does not attempt to address the backlog of maintenance needs and demonstrates what level of funding is necessary to maintain existing pavement conditions. It should be noted that this funding concept does not account for any increase in capital funding necessary that may result from premature failure of existing facilities due to not being optimally maintained.

Four funding concepts are described below that would address these needs. The concepts are summarized in Table 5.8.X. More detailed information on how each of the following funding sources would address 2020 Strategic transportation system needs can be found in Appendix XX.

Concept 1: Annual 4¢ State Gas Tax Increase

Continuing to rely on annual increases to the state gas tax would require action by the State Legislature to increase the state gas tax by 4¢ every year for the next 20 years. This would address the declining purchase power of the gas tax revenues, fund the backlog of maintenance needs, fully fund modernization of the 2020 Strategic system and provide additional revenue for local road capital projects.

Under this concept, it will be necessary to provide additional funds to expand transit operations to levels anticipated in the 2020 Strategic system. Increasing the rate of the payroll tax by .1 percent from current rates (Tri-Met = .6 percent, SMART = .3 percent) would significantly address the funding shortfall needed to operate the 2020 Strategic Transit network.

Current law does not allow State Highway Trust Fund revenues to be used for transit capital or operations. However, fully funding the highway and road maintenance and modernization needs with increases in the state gas tax would allow the maximum amount of existing flexible revenues (STP, CMAQ and Enhancement funds) to be used for transit; an additional $284 million over the course of the planning period. General obligation property tax bonds could provide the remaining $699 million needed for transit capital projects to implement the 2020 Strategic transit system. An average annual cost for the owner of a home assessed at $150,000 in value would be approximately $58 between the years 2005 and 2040 to retire the bonds. Actual annual costs would vary depending on the bond terms and conditions.

Concept 2: Fund Maintenance Locally

Another alternative concept to funding the 2020 Strategic transportation system would be to address the funding shortfall for City and County road maintenance locally and fund capital projects and ODOT highway maintenance with state gas tax increases when action from the state Legislature is feasible.

Several funding tools could potentially be used to provide additional revenues for maintenance. Additional local gas taxes and a local vehicle registration fee could be used for City and County maintenance needs. If the three Metro area counties implemented a uniform 3¢ per gallon gas tax with an annual 1¢ increase and a local $15 vehicle registration fee, a significant portion of the City and County maintenance backlog could be addressed, maintaining road conditions at improved conditions from today.

A street utility fee, similar to such fees already in place in cities such as Tualatin, Wilsonville, and Grants Pass, could be implemented throughout the region. Street utility fees are typically included as part of a city or special district water and sewer or other utility billing. The City of Tualatin's fee structure is based on average vehicle trips generated by the land use classification of the property. A fee at two and a half times the current City of Tualatin rate implemented throughout the region would address a significant portion of the City and County maintenance backlog. At this rate the cost to a single family home would be $3.56 per month. Costs to other land uses (commercial, industrial, etc.) would vary. Rates could be set to achieve any level of maintenance desired by the implementing jurisdiction.

Road maintenance districts are property tax based assessments for the purpose of maintaining the transportation system under the premise that every property in the billing area benefits from the access provided by the transportation system. Washington County currently has a road maintenance district for unincorporated areas. If such a district were put in place throughout the region at approximately twice the current rate of Washington County's district, city and county roads would continue to be maintained at current standards through the planning period (to year 2020). This would cost the owner of a home assessed at $150,000 approximately $6.25 per month.

Any one of or a combination of the above new revenue sources could be implemented throughout the region to address city and county maintenance needs. This would demand that

ODOT highway maintenance and road and highway capital project funding to be addressed at the state level. To fully fund the needs in these areas and stay even with inflation, as defined by the 2020 Strategic system, would require a 2¢ increase in the state gas tax every year throughout the planning period. A $9 increase in the state vehicle registration fee could be implemented in lieu of a 1¢ increase in the state gas tax.

As ODOT's share of the annual 2¢ increase in the state gas tax would be used to meet highway maintenance needs, the City and County share of the state gas tax increases would need to pay for the modernization of both road and highway projects of the 2020 Strategic system. Tolling revenues would also be needed for highway capital costs. [8] Therefore, cities and counties would need other sources of new revenue to pay for the construction of local roads. This financial concept assumes local jurisdictions would raise system development charges (SDC's) and/or other sources to fund the costs of constructing local streets.

If a street utility fee were considered throughout the region for street maintenance, it could also be considered for transit operations. A transit utility fee with rates at or slightly higher than the City of Tualatin's street maintenance fee would generate revenues to address revenue needed to operate the 2020 Strategic transit system. At the Tualatin rate, the cost to a single family home would be $1.42 a month while costs to other land uses would vary according average vehicle trip generation rates.

The "Fund Maintenance Locally" concept would not raise as much revenue for the road system as an annual 4 increase to the state gas tax. The additional funding, however, could allow some additional flexible revenues to be allocated to transit capital projects. An additional $53 million of flexible revenues would bring expenditures on transit capital to half of the available flexible funds. General obligation property tax bonds could provide the remaining $932 million needed for transit capital projects to implement the 2020 Strategic transit system.

Concept 3: Fund Modernization Locally

Another alternative concept to funding the 2020 Strategic transportation system would be to address the funding shortfall for maintenance with state gas tax increases and fund capital projects with new local sources.

To fully fund the maintenance needs of the state highway and city and county road system would require a 2¢ increase in the state gas tax every year throughout the planning period. A $9 increase in the state vehicle registration fee could be implemented in lieu of a 1¢ increase in the state gas tax.

With maintenance addressed by state funding sources, local jurisdictions could attempt to fund highway and road modernization locally. Two new potential sources of transportation revenue could be considered for modernization projects; a fee on vehicle miles traveled (VMT) and a fee on non-residential parking spaces.

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[8] An analysis of potential toll revenues that could be used to help fund Strategic system projects is underway at the time of this draft of the RTP. Specific information from that analysis will included in future drafts of the RTP produced following adoption of the Transit Relief Options study.

At a rate of 1¢ per mile and indexed to inflation, a VMT fee on residents of the Metro region would generate $1.33 billion over the course of the planning period. This represents approximately one half of the funding shortfall of road and highway capital projects in the 2020 Strategic system.

A $7 per space, per month parking fee on all non-residential parking spaces in the region, indexed to inflation, would generate $1.38 billion over the course of the planning period. This represents approximately one half of the funding shortfall of road and highway capital projects in the 2020 Strategic system. This financial concept assumes local jurisdictions would raise system development charges (SDC's) and/or other sources to fund the costs of constructing local streets.

As with the "Annual 4¢ State Gas Tax Increase" concept, increasing the rate of the payroll tax by .1 percent from current rates (Tri-Met = .6 percent, SMART = .3 percent) would significantly address the funding shortfall needed to operate the 2020 Strategic Transit network.

The "Fund Modernization Locally" concept would also not raise as much revenue for the road system as an annual 4¢ increase to the state gas tax. The additional funding, however, could allow some additional flexible revenues to be allocated to transit capital projects. An additional $53 million of flexible revenues would bring expenditures on transit capital to half of the available flexible funds. A combination of system development charges and general obligation property tax bonds could provide the remaining $932 million needed for transit capital projects to implement the 2020 Strategic transit system.

Concept 4: Accept Current Maintenance Levels

A final funding concept to be presented in the RTP is for agencies and jurisdictions in the region would be to accept the current level of maintenance of area roads and bridges. Today, approximately 77 percent of regional roads and highways are maintained at fair or better pavement condition. While maintaining the road system at 90 percent fair or better pavement condition provides the longest life of the facility and safest operating conditions, the agencies and jurisdictions of the region may decide that it is simply not feasible to fund maintenance at this level.

An annual increase of 1¢ in the State gas tax would allow ODOT to continue to maintain highways in the region at current levels. The same annual 1¢ increase in the State gas tax would allow cities and counties to use their share to maintain roads in the region at current maintenance levels.

Funding modernization of the highway and road system to implement the 2020 Strategic transportation system would take additional resources. A second annual increase of 1¢ in the State gas tax, for a total of 2¢ annual increase, in conjunction with an increase in system development charge revenues and tolling of new highway lanes could fund modernization of the 2020 Strategic road and highway system.

As described in the other concepts, an increase in the payroll tax rate could fund additional transit service to implement the Strategic transit system.

In this funding concept, no additional flexible revenues would be shifted from road and highway projects to transit projects. A combination of system development charges and general obligation

property tax bonds could provide the additional $985 million of local revenues needed for transit capital projects to implement the Strategic transit system.

Conclusions

- The Strategic transportation system is not too large or expensive relative to past per capita expenditures in transportation or in relative utility costs.
- The region will need actions at both the state and local levels to successfully fund the 2020 Strategic System and keep up with inflation.
- The region will need new, creative sources of transportation revenue to successfully fund the Strategic system and keep up with inflation.
- In the short-term, until new funding sources are established, setting clear priorities for spending will be increasingly important as funding will be limited to less than the identified need.

METRO

Attachment 4

Proposed Revisions to Title 2 – Parking and Title 10 - Definitions

METRO

Draft Amendment

Urban Growth Management Functional Plan

Titles 2 and 10

The Oregon Transportation Planning Rule (TPR) was amended in September 1998 to include a number of refinements, many of which recognized elements of Metro's planning efforts in developing the RTP and Urban Growth Management Functional Plan (UGMFP). Most of these new provisions in the TPR are addressed in the draft 2000 RTP. However, the following revisions to Title 2 and Title 10 of the UGMFP are needed to comply with the expanded requirements of OAR 660-012-0045(5)(d)(E-F):

3.07.210 - Intent

The State's Transportation Planning Rule calls for reductions in vehicle miles traveled per capita and restrictions on construction of new parking spaces as a means of responding to transportation and land use impacts of growth. The Metro 2040 Growth Concept calls for more compact development as a means to encourage more efficient use of land, promote non-auto trips and protect air quality. In addition, the federally mandated air quality plan adopted by the state relies on the 2040 Growth Concept fully achieving its transportation objectives. Notably, the air quality plan relies upon reducing vehicle trips per capita and related parking spaces through minimum and maximum parking ratios.

This title addresses these state and federal requirements and preserves the quality of life of the region. A compact urban form requires that each use of land is carefully considered and that more efficient forms are favored over less efficient ones. Parking, especially that provided in new developments, can result in a less efficient land usage and lower floor to area ratios. Parking also has implications for transportation.

In areas where transit is provided or other non-auto modes (walking, biking) are convenient, less parking can be provided and still allow accessibility and mobility for all modes, including autos. Reductions in auto trips when substituted by non-auto modes can reduce congestion and increase air quality.

3.07.220 - Performance Standard

A. Cities and counties are hereby required to amend their comprehensive plans and implementing regulations, if necessary, to meet or exceed the following minimum standards:

   1. Cities and counties shall require no more parking than the minimum as shown on Table 3.07-2, Regional Parking Ratios, attached hereto; and

   2. Cities and counties shall establish parking maximums at ratios no greater than those listed in the Regional Parking Ratios Table and as illustrated in the Parking Maximum Map. The designation of A and B zones on the Parking Maximum Map should be reviewed after the completion of the Regional Transportation Plan and every three years thereafter. If 20-minute peak hour transit service has become available to an area within a one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit, that area shall be added to Zone A. If 20-minute peak hour transit

service is no longer available to an area within a one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit, that area shall be removed from Zone A. Cities and counties should designate Zone A parking ratios in areas with good pedestrian access to commercial or employment areas (within 1/3 mile walk) from adjacent residential areas.

3. Cities and counties shall establish an administrative or public hearing process for considering ratios for individual or joint developments to allow a variance for parking when a development application is received which may result in approval of construction of parking spaces either in excess of the maximum parking ratios; or less than the minimum parking ratios.

   Cities and counties may grant a variance from any maximum parking ratios through a variance process.

B. Free surface parking spaces shall be subject to the regional parking maximums provided for Zone A and Zone B. Parking spaces in parking structures, fleet parking, parking for vehicles that are for sale, lease, or rent, employee car pool parking spaces, dedicated valet parking spaces, spaces that are user paid, market rate parking or other high-efficiency parking management alternatives may be exempted from maximum parking standards by cities and counties. Sites that are proposed for redevelopment may be allowed to phase in reductions as a local option. Where mixed land uses are proposed, cities and counties shall provide for blended parking rates. It is recommended that cities and counties count adjacent on-street parking spaces, nearby public parking and shared parking toward required parking minimum standards.

C. Cities and counties may use categories or measurement standards other than those in the Regional Parking Ratios Table, but must provide findings that the effect of the local regulations will be substantially the same as the application of the Regional Parking Ratios.

~~D. Cities and counties shall monitor and provide the following data to Metro on an annual basis:~~

~~1. The number and location of newly developed parking spaces; and~~

~~2. Demonstration of compliance with the minimum and maximum parking standards, including the application of any variances to the regional standards in this title. Coordination with Metro collection of other building data should be encouraged.~~

D. Cities and counties shall provide for the designation of residential parking districts in local comprehensive plans or implementing ordinances.

E. Cities and counties shall amend their comprehensive plans and implementing regulations to require that parking lots more than 3 acres in size provide street-like features along major driveways; including curbs, sidewalks, and street trees or planting strips. Major driveways in new residential and mixed use areas shall meet the connectivity standards for full street connections as described in Section 6.4.5 of the 2000 Regional Transportation Plan.

F. Cities and counties shall amend their comprehensive plans and implementing regulations to incorporate the requirements contained in Section 3.07.220(A)-(E) within one year of adoption of the 2000 Regional Transportation Plan.

TITLE 10: DEFINITIONS

(ggg) "Residential Parking District" is a designation intended to protect residential areas from spillover parking generated by adjacent commercial, employment or mixed use areas, or other uses that generate a high demand for parking.

METRO

Attachment 5

Public Comments Received from May 15 through June 29, 2000

(Final Public Comment Report to be provided under separate cover at July 13 JPACT meeting)

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1794

METRO

DATE: July 6, 2000

TO: Interested Parties

FROM: Tom Kloster, RTP Project Manager

SUBJECT: TPAC Recommendations on RTP Public Comments

* * * * * * *

To received a copy of TPAC recommendations to JPACT on final RTP public comments, please contact Francine Floyd at (503) 797-1757.

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1794

METRO

DATE: July 13, 2000

TO: Council Members and Interested Parties

FROM: Jon Kvistad, JPACT Chair

SUBJECT: JPACT Recommendations on RTP Public Comments

* * * * * * *

Attached, please find a summary of final public comments in Attachment 1 and accompanying JPACT recommendations for amendments to the draft RTP. The final public comment period began on May 15, 2000, and this packet summarizes and responds to comments received through the close of the comment period June 29, 2000, including those comments received at the June 29 public hearing.

The JPACT recommendations are grouped according to proposed "discussion" and "consent" items. JPACT recommends that Council approve the "consent" items in Part 2 of Attachment 1 as a group, and take individual action on the three "discussion" items contained in Part 1 of Attachment 1. The original comments that are the basis for the JPACT recommendations are provided under separate cover in the *2000 RTP Public Comment Report*.

Attachment 1 - This attachment includes JPACT recommendations on substantive public comments on the draft RTP and supplemental revisions documents submitted through June 29, 2000. Part 1 is recommended for discussion by Council and Part 2 is recommended for adoption by consent.

Attachment 2 - This attachment includes proposed revisions to the RTP Preface and Introduction sections that provide a more complete overview of how the RTP addresses state and federal regulations. These revisions were recommended by JPACT at the July 13 meeting.

Attachment 3 - This attachment includes proposed revisions to Chapter 5 of the draft RTP, replacing the "Existing Resource" system in Section 5.0 through 5.1 with the Financially Constrained system descriptions, findings and conclusions. These revisions were prepared in response to a comment from the Federal Highway Administration (FHWA), and are necessary to maintain certification of the RTP as a federally recognized plan. It also includes draft revisions to the financial analysis contained in Section 5.4 of the draft RTP, at the direction of JPACT and the Council.

Attachment 4 - As part of the RTP update, JPACT is recommending these revisions to the regional parking provisions of Title 2 of the Urban Growth Management Functional Plan, and a supporting revision to Title 10, the definitions section of the UGMFP.

Attachment 5 – The 2000 RTP Public Comment Report is provided under separate cover, and includes all comments received during the May 15 through June 29 comment period, and other supporting documentation, including minutes from the June 29 Council public hearing.

METRO

Attachment 1

July 13, 2000
JPACT Recommendations on Public Comments

Part 1
Proposed Discussion Items

Comment 1: Allow greater public outreach on the LOS policy, 2040 land use implications and RTP finance, and delay adoption of the RTP by six months to accomplish this. Specifically, the comments from the Westside Business Coalition and County Board of Commissioners propose the following:

- Develop a more thorough impact analysis of the RTP on the region's economy that assess the impact of congestion on commerce activities.
- Evaluate the 2040 Growth Concept in light of the apparent inability to afford infrastructure that makes 2040 work.
- Engage local jurisdictions, communities and businesses in additional discussion on the consequences of he RTP, including decisions regarding the plan's design, funding and implementation.
- Postpone any consideration of requesting a regional gas tax/vehicle registration increase of the region's voters during the six-month period.

(Westside Economic Alliance, 6/28/00; Washington County, 6/29/00; Westside Business Coalition on Transportation, 6/29/00)

JPACT Recommendation on Comment 1:

The comments from the Washington County business groups represent an opportunity to further engage the public in a discussion of the region's transportation policies and projects. Therefore, JPACT recommends postponing adoption of the RTP to their August 10, 2000 meeting to define an approach to the concerns expressed in these comments. JPACT recommends that these tasks be addressed in the spirit of implementing the RTP, and that any recommendations or subsequent refinements to the RTP be promptly considered for incorporation into the plan. JPACT recommends that an aggressive timeline for completing this additional analysis and outreach be developed in conjunction with the business community as part of the expanded outreach effort. JPACT also recommends that the RTP resolution to be considered on August 10, 2000 be revised to state that "Metro will undertake an additional analysis of the region's transportation problems and potential solutions with the Westside Business Coalition, and that JPACT, MPAC and the Council consider resulting modifications or refinements to the RTP within one year of this additional effort".

Because the 2000 RTP is the culmination of a five-year update that has been based on an expansive public outreach effort, it should be adopted in a timely manner to provide a clear statement of proposed transportation policy direction, and a basis for further discussions with the business community and others. However, the Executive Officer, Council President and other members of the Council are scheduled to meet with the Westside business interest in late July, JPACT recommends that final action on the RTP be deferred to the August 10 JPACT meeting to allow the committee to discuss the issues and concerns raised in the Council and Executive Officer meeting with the business group.

Comment 2: The urban growth boundary along the southern edge of Sherwood should not be expanded until the I-5 to 99W connector is studied, and a general alignment or no-build decision has been made. (Tom Aufenthie, 6/21/00)

JPACT Recommendation on Comment 2: Agree, however, this issue is most appropriately addressed as part of the ongoing urban growth boundary discussion. The RTP has recommended a corridor refinement study for the Tualatin-Sherwood connector that considers a "southern" alignment along the south edge of Sherwood. The RTP also requires that the refinement plan consider opportunities for a southern alignment of the connector to serve as a "hard edge" to the urban area, forming a long-term boundary between urban and rural uses. As such, JPACT recommends that this potential for a combined land use and transportation analysis be considered as part of upcoming urban growth boundary expansion deliberations, and that expansion in this area be linked to the completion of the Tualatin-Sherwood connector study. To better frame this issue within the RTP, JPACT recommends the following revisions to the I-5/99W Connector corridor study description on page 6-28 of the draft RTP:

> "....This connection will have significant effects on urban form in the this rapidly growing area, and the following design considerations should be addressed in a corridor plan:
>
> • link UGB expansion in this area to the corridor plan, and examine the potential for the proposed highway to serve a "hard edge" in the ultimate urban form of the Sherwood area."

Comment 3: The financially constrained system should be elevated to a more prominent role in the body of the RTP, since it serves as the federally-recognized system for the purpose of federal transportation planning, air-quality and funding requirements (FHWA, 5/23/00)

JPACT Recommendation on Comment 3: Amendment recommended. To better clarify the relationship between, and corresponding roles the financially constrained and strategic systems, JPACT recommends revising the Preface and Introduction sections of the draft RTP, as shown in Attachment 2. JPACT also recommends replacing the "Existing Resource System" section in Chapter 5 of the draft RTP with the "Financially Constrained System" text shown in Attachment 3. In addition, JPACT recommends updating the projects maps in Chapter 5 to portray both the financially constrained and strategic systems.

Because of the importance in communicating these systems to the public, JPACT recommends that communication tools be developed following adoption of the plan. Metro has proposed a "magazine" synopsis of the plan, and JPACT recommends that this synopsis be developed as a detailed summary of the plan that offers both brevity and essential information about the 2000 RTP.

Part 2
Proposed Consent Items

Chapter 1

Comment 4: The RTP level of service policy is not adequate and could negatively impact business in the region and quality of life; an analysis mid-day congestion is also needed. (Westside Economic Alliance, 6/28/00; Washington County, 6/29/00; Westside Business Coalition on Transportation, 6/29/00)

JPACT Recommendation on Comment 4: No change recommended. The LOS policy was the focus of a lengthy analysis and debate in 1996-97, and reflects a considered balance between the need for mobility on the roadway system, and the financial limitations and community impacts of "fixing" all congestion. The LOS policy is based on the conclusion that without a broad-based congestion pricing policy, it would be either impossible or impractical to relieve peak-hour congestion to a high standard on many of the region's major travel corridors. However, the policy does not preclude jurisdictions from establishing a local, higher standard than the regional policy, with some conditions. Therefore, it is appropriate that the business interests in Washington County consider this option as part of developing the Washington County TSP.

A mid-day congestion analysis was completed as part of a series of post-resolution refinements to the plan in early 2000. The mid-day system performance is generally very good, and LOS policy is only an issue in a small number of localized areas. These findings supported the overall LOS policy, though they are not included in the RTP document. Analysis materials from the mid-day modeling were provided to major jurisdictions in the region, including the counties and larger cities.

Comment 5: Designate Tualatin town center as an Area of Special Concern because segments of Boones Ferry Road and Martinazzi Road do not meet RTP level-of-service standards despite significant improvements in the area that include expanded transit service, I-5 to 99W Connector, Washington County commuter rail and various connectivity improvements. (City of Tualatin, 6/8/00)

JPACT Recommendation on Comment 5: Amend as requested with the recognition that the Tualatin transportation system plan will further evaluate motor vehicle congestion within the town center consistent with Section 6.7.7 in Chapter 6 of the Regional Transportation Plan.

Comment 6: Amend RTP Policy 7.0 to include the following language as an additional objective for consistency with Chapter 3 of the Regional Framework Plan, "New transportation and utility projects shall seek to avoid fragmentation and degradation of components of the Regional System. If avoidance is infeasible, impacts shall be minimized and mitigated." (Metro Regional Parks and Greenspaces, 6/28/00)

JPACT Recommendation on Comment 6: Amend as requested with the following text:: New transportation and related utility projects shall seek to avoid fragmentation and degradation of components of the Regional System. If avoidance is infeasible, impacts shall be minimized and mitigated.

Comment 7: Amend Section 1.3.6 (Mode Split Targets) to reflect the mode split as adopted in the Clackamas County Comprehensive Plan for the Clackamas Regional Center Plan.

JPACT Recommendation on Comment 7: Clackamas County did an admirable job in establishing mode share targets for the Clackamas Regional Center Plan, which was studied and adopted prior to completion of the RTP. However, the County must revisit the Clackamas Regional Center Plan mode share targets within one year of adoption of the RTP, as is required in Chapter 6, Section 6.4.6. Table 1.3 in Chapter 1, Section 1.36 notes that the targets reflect conditions appropriate for the year 2040 and are needed to comply with Oregon Transportation Planning Rule objectives to reduce reliance on single-occupancy vehicles.

Comment 8: Change Policy 20.1 to prioritize funding of projects or planning that achieve complete communities over projects that expand inter-regional transportation capacity (Sierra Club Columbia Group).

JPACT Recommendation on Comment 8: No change recommended. This policy prioritizes which land use components of the 2040 land use designation will receive priority for transportation resources; it does not prioritize the type of projects within those land uses that should receive priority. The transportation projects most needed to implement the 2040 vision for these land use types will be defined by the local planning efforts in each of the individual areas. Due to differences in such areas as maturity of urban form and infrastructure, land use capacity, geographic location, and local economy, different types of transportation solutions will be appropriate in different centers to achieve a 2040 land use vision. Therefore, it is not appropriate to prescribe a particular type of transportation solution to every 2040 land use designation.

Comment 9: Fish passage has been identified as a major obstacle to sustaining healthy fish populations in the Metro area. As currently written, however, culvert removal and replacement would fall to a second tier priority based on policy 20.2. The RTP should more explicitly reflect the priority of natural resource protection from Chapter 1 in funding priorities. Amend the objectives under Policy 20.2 as follows to make funding for transportation facilities that also meet environmental objectives a first tier priority:

Policy 20.2 Transportation System Maintenance and Preservation
a. Objective: Place the highest priority on projects and programs that preserve or maintain the region's transportation infrastructure, retrofit or remove culverts identified in the region's fish passage program.
b. Objective: Place a high priority on projects and programs that preserve or maintain the region's transportation infrastructure.
~~b~~c. Objective: Place less priority on projects and programs that modernize or expand the region's transportation infrastructure.

(Metro Regional Parks and Greenspaces, 6/28/00)

JPACT Recommendation on Comment 9: Amend as requested.

Comment 10: Revise Figure 1.17 (Regional Freight System Map) to include the rail system in the Rivergate area. (Port of Portland, 5/26/00)

JPACT Recommendation on Comment 10: Amend as requested.

Comment 11: The Happy Valley TSP, adopted December, 1998, included a proposed "collector study area" between the intersection of SE Clatsop and SE 132nd to SE Mt. Scott Boulevard. This segment was shown as a collector study area in the Happy Valley TSP because portions of the study area are within the Portland city limits. (Happy Valley, 6/8/2000)

JPACT Recommendation on Comment 11: Amend regional transportation system maps in Chapter 1 as follows:

- Regional Street Design System: Add a dashed line between the intersection of SE Clatsop and SE 132nd to SE Mt. Scott Boulevard to designate a proposed Community Street.
- Regional Motor Vehicle System: Add a dashed line between the intersection of SE Clatsop and SE 132nd to SE Mt. Scott Boulevard to designate a proposed Collector of Regional Significance.
- Regional Bicycle System: Add a dashed line between the intersection of SE Clatsop and SE 132nd to SE Mt. Scott Boulevard to designate a proposed Community Connector Bikeway.

In addition, add King Road from 132nd Avenue to 145th Avenue to the Regional Bicycle System Map as a proposed Community Connector Bikeway for consistency with the Happy Valley TSP adopted in December, 1998.

Comment 12: Give transit vehicles, bicycles and pedestrians right-of-way and signal priority over automobiles in all circumstances. (Penny Roth, 6/1/00)

JPACT Recommendation on Comment 12: No change is recommended. Where there is significant transit traffic, all transportation facilities designated as regional transit facilities are designated to receive significant capital improvements to increase transit vehicle speed and passenger comfort. This includes signal priority and que-jump lanes for transit vehicles where such devices will increase speed and/or reliability of transit service.

Regional Street Design Policies

Comment 13: Amend the RTP to include language to address how to resolve conflicts between RTP Figure 1.4 and local planning activities that locate boulevard designations in local land use and transportation plans for regional and town center areas. (Washington County, 6/12/00)

JPACT Recommendation on Comment 13: No change is recommended. Section 6.4.8 in Chapter 6 of the RTP allows for findings of consistency with the RTP as part of Metro review of local plan amendments. Based on a finding of consistency with RTP policies, the revision will be specifically proposed for inclusion in future updates to the RTP. Proposed amendments to the RTP are not effective until a formal amendment has been adopted, however, the purpose of endorsing such proposed changes is to allow local governments to retain the proposed transportation solution (or in this case regional street design classification) in local plans as long as a finding of consistency with the RTP has been made.

Comment 14: Change classification of McLoughlin Boulevard between SE Stephens and Highway 224 from Highway to Regional Boulevard. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 14: No change is recommended. McLoughlin Boulevard will continue to serve as the primary motor vehicle connection from the central city to Milwaukie town center and Clackamas regional center and the southeastern portion of the region. Recognizing this important function, McLoughlin Boulevard is designated as a principal arterial on the motor vehicle system map, making it appropriate for McLoughin Boulevard to remain designated as a Highway.

Highways are motor vehicle oriented with generally limited access that may include occasional driveways and a mix of at-grade and separated grade street intersections. In addition, Highway designs include striped bicycle lanes and pedestrian sidewalks with optional landscape buffering with improved pedestrian crossings located at overpasses or at-grade intersections. Thus, the Highway design can serve the regional mobility function of this roadway while also accommodating bicycle, pedestrian and transit access needs along the corridor.

Comment 15: Change classification of Tualatin Valley Highway in Beaverton, Aloha and Hillsboro from Highway to Regional Boulevard. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 15: No change is recommended. The draft RTP proposes a Regional Street designation for Tualatin Valley from Highway 217 to Cedar Hills Boulevard (within Beaverton regional center) and from Brookwood Avenue to Baseline/10th Avenue (entering Hillsboro). A Regional Boulevard designation is proposed for Tualatin Valley Highway from 10th Avenue to 1st Avenue. An Urban Road designation is proposed for the section of Tualatin Valley Highway from Cedar Hills Boulevard to Brookwood Avenue (including the section within Aloha) where buildings are less oriented to the street.

The appropriateness of these street design designations and corresponding motor vehicle functional classifications will be evaluated as part of corridor study for Tualatin Valley Highway.

Comment 16: Change classification of St. Helens Road in Linnton from Highway to Regional Boulevard. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 16: No change is recommended. US 30 (St. Helens Road) in Linnton will serve as the primary motor vehicle and freight connection from the central city and Columbia Corridor to destinations west of the region. Recognizing this important function, US 30 is designated as a principal arterial on the motor vehicle system map. As such, it is appropriate for US 30 to remain designated as a Highway. A Regional Boulevard designation generally applies to Major Arterial streets within major centers of activity such as regional and town centers.

Comment 17: Amend RTP language to require local jurisdictions to adhere to the design guidelines adopted in *Creating Livable Streets: Street Design Guidelines for 2040* (1997). (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 17: No change is recommended. One of the key findings of the regional street design work team was that many local jurisdictions have already adopted, or are developing, street design ordinances that will help implement the 2040 Growth Concept. In recognition of these efforts, staff supports implementing the regional street design concepts as guidelines rather than standards and using financial incentives through the MTIP criteria to leverage consideration of regional street design guidelines. Any project that competes for regional funding is required to be consistent with the design guidelines adopted in *Creating Livable Streets: Street Design Guidelines for 2040* (1997).

Comment 18: Amend RTP to define a "Green Transportation Hierarchy" to that prioritizes street design elements in areas of limited right-of-way as follows: (1) walking, (2) bicycling, (3) transit, (4) goods movement, and (5) auto travel. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 18: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) addresses these tradeoff issues and is a resource for cities and counties to use when prioritizing street design elements within a constrained right-of-way.

Comment 19: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to reduce lane widths from the 11 – 12 foot standard to 10 feet for most classifications of streets, particularly in the 2040 centers, to reduce auto speeds. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 19: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) provides guidelines, not standards, for use by local jurisdictions in the design of regional streets. Metro will update the street design handbook in the future and will consider this comment as part of the future update.

Comment 20: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to increase the separation of the pedestrian from travel lanes by adding planting strips, street trees so that the minimum pedestrian area is 10 feet wide. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 20: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) provides guidelines, not standards, for use by local jurisdictions in the design of regional streets. However, the proposed language in Section 6.4.5(3)(a) on page 34 in *Supplemental Revisions to 1999 Regional Transportation Plan* requires street design code language to allow for and support sidewalk widths of at least five feet and landscaped pedestrian buffer strips that include street trees. The street design guidelines in *Creating Livable Streets* recommend a planting strip minimum width of four to five feet for facilities designated as regional streets.

Comment 21: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to limit the width of driveways to 24 feet and require a minimum 3 foot wide area of maximum 2 percent cross-slope. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 21: No change is recommended. This is a local project design issue.

Comment 22: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to require protection of the pedestrian space by adding such elements as street trees and bollards. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 22: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) provides guidelines, not standards, for use by local jurisdictions in the design of regional streets. The street design handbook recommends street trees and other streetscape features for arterial streets. Cities and counties are required to consider these street design elements as part project development of regional streets per Section 6.7.3 in Chapter 6 of the draft RTP. See also Section 6.7.3 on page 39 in *Supplemental Revisions to 1999 Regional Transportation Plan* for additional amendments to this section.

Comment 23: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to mandate legal pedestrian crossings every 400 feet along transit streets and in pedestrian districts and "treated" pedestrian crossings no less than every 1000 feet on other major streets. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 23: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) provides guidelines, not standards, for use by local jurisdictions in the design of regional streets. The street design handbook recommends consideration of mid-block crossings arterial streets when protected intersection crossings are spaced greater than 600 feet or so that crosswalks are located no greater than 300 feet apart in high pedestrian volume locations. Cities and counties are required to consider this street design element as part project development of regional streets per Section 6.7.3 in Chapter 6 of the draft RTP. See also Section 6.7.3 on page 39 in *Supplemental Revisions to 1999 Regional Transportation Plan* for additional amendments to this section.

Comment 24: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to require a reduction of curb return radii to reduce the turning speeds of autos and trucks. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 24: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) provides guidelines, not standards, for use by local jurisdictions in the design of regional streets. The street design handbook recommends reduced curb return radii for arterial streets. Cities and counties are required to consider this street design element as part project development of regional streets per Section 6.7.3 in Chapter 6 of the draft RTP. See also Section 6.7.3 on page 39 in *Supplemental Revisions to 1999 Regional Transportation Plan* for additional amendments to this section.

Comment 25: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to limit pedestrian crossing distance to 50 feet through the use of medians, a prohibition of multiple left turn lanes, etc. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 25: No change is recommended. *Creating Livable Streets: Street Design for 2040* (1997) provides guidelines, not standards, for use by local jurisdictions in the design of regional streets. The street design handbook recommends providing raised median pedestrian refuges at mid-block crossings on arterial streets where total crossing distance is greater than 60 feet. Cities and counties are required to consider this street design element as part project development of

regional streets per Section 6.7.3 in Chapter 6 of the draft RTP. See also Section 6.7.3 on page 39 in *Supplemental Revisions to 1999 Regional Transportation Plan* for additional amendments to this section.

Comment 26: Amend the RTP or *Creating Livable Streets: Street Design for 2040* (1997) to require designs for the desired driver behavior rather than relying on signage to modify driver behavior encouraged by bad street design. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 26: No change recommended. The proposed language in Section 6.4.5(2)(f) on page 36 in *Supplemental Revisions to 1999 Regional Transportation Plan* requires cities and counties to develop street cross sections demonstrating dimensions of right-of-way improvements, with streets designed for posted or expected speed limits. In addition, amendments to Section 6.4.5(3)(d) on page 36 in *Supplemental Revisions to 1999 Regional Transportation Plan* requires local street design code language to allow for and encourage consideration of traffic calming devices to discourage traffic infiltration and excessive speeds on local streets.

Regional Motor Vehicle System Policies

Comment 27: Downgrade McLoughlin Boulevard between SE Stephens and Highway 224 from principal arterial to major arterial on the Regional Motor Vehicle System Map. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 27: No change recommended. McLoughlin Boulevard will continue to serve as the primary motor vehicle connection from the central city to Milwaukie town center and Clackamas regional center and the southeastern portion of the region. Further access limitations on McLoughlin Boulevard are appropriate, which is a primary distinction between the Principal arterial and major arterial classifications.

Comment 28: Downgrade Tualatin Valley Highway in Beaverton, Aloha and Hillsboro from principal arterial to major arterial on the Regional Motor Vehicle System Map. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 28: No change recommended. The draft RTP currently designates Tualatin Valley Highway as a major arterial.

Comment 29: Downgrade St. Helens Road in Linnton from principal arterial to major arterial on the Regional Motor Vehicle System Map. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 29: No change recommended. US 30 (St. Helens Road) in Linnton will serve as the primary motor vehicle and freight connection from the central city and Columbia Corridor to destinations west of the region. Recognizing this important function, US 30 is designated as a principal arterial on the motor vehicle system map.

Comment 30: Downgrade Garden Home Road and Oleson Road north of Garden Home Road from minor arterials to local collectors on the Regional Motor Vehicle System Map. (Willamette Pedestrian Coalition, 4/21/00)

JPACT Recommendation on Comment 30: No change recommended. This part of the region lacks an adequate east-west and north-south arterial street network, and Garden Home and Oleson roads have been included in past regional plans as minor arterials, consistent with local transportation system plans.

Comment 31: Designate Germantown Road as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 31: No change is recommended. It is inappropriate for Germantown Road to be designated as a regional facility because of physical constraints throughout the corridor. Cornelius Pass Road is designated as an arterial and is intended to serve regional trips connecting northern Washington County to Highway 30.

Comment 32: Designate 143rd Avenue between Cornell Road and Bethany town center as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 32: No change is recommended. This part of the region is supported by a good arterial street network. Designating 143rd Avenue as a Collector of Regional Significance would not serve a different travel function than Bethany Boulevard and Saltzman Road, which are designated as collectors of regional significance.

Comment 33: Remove designation of 143rd Avenue extension south of Cornell Road from the Regional Motor Vehicle System Map because this project is no longer included in the RTP. (Washington County, 6/12/00)

JPACT Recommendation on Comment 33: Amend as requested. In addition, remove community street designation of 143rd Avenue south of Cornell Road from the Regional Street Design Map (Figure 1.4).

Comment 34: Designate Laidlaw Road between 170th Avenue and the Bethany town center as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 34: No change is recommended. This designation could be considered for amendment to the RTP if identified as part of a complete collector level system and designated in the Washington County transportation system plan.

Comment 35: Designate 198th Avenue between Farmington Road and Baseline Road as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 35: Amend as requested as a dotted line from Baseline Road to Rock Road and as a solid line from Rock Road to Farmington Road. In addition, designate 198th Avenue between Baseline Road and Farmington Road as a community street in Figure 1.4 (Regional Street Design Map).

Comment 36: Designate Barrows Road south of Scholls Ferry Road as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 36: No change is recommended. Designating Barrows Road as a Collector of Regional Significance would not serve a different travel function than Scholls Ferry Road, which is designated as a major arterial in this part of the region.

Comment 37: Designate Kinnamon Road between 209th Avenue and Farmington Road as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 37: Amend as requested. In addition, designate Kinnamon Road between 209th Avenue and Farmington Road as a community street in Figure 1.4 (Regional Street Design Map).

Comment 38: Designate Springville Road between 185th and Portland Community College as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 38: No change is recommended. This designation could be considered for amendment to the RTP if identified as part of a complete collector level system and designated in the Washington County transportation system plan.

Comment 39: Designate Vermont Street east of Oleson Road as a Collector of Regional Significance on the Regional Motor Vehicle System Map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 39: No change recommended. Designating Vermont Street as a Collector of Regional Significance would not serve a different travel function than Beaverton-Hillsdale Highway and Garden Home Road, which are designated as major and minor arterials respectively. In addition, this proposal is not consistent with the Portland transportation system plan.

Comment 40: Downgrade Oak Street west of 170th Avenue to a Collector of Regional Significance on the Regional Motor Vehicle System Map to reflect move of Aloha town center designation to 185th at Tualatin Valley Highway. (Washington County, 6/12/00)

JPACT Recommendation on Comment 40: Amendment recommended. Downgrade Oak Street from a minor arterial to a collector of regional significance from Murray Boulevard to Farmington Road.

Regional Public Transportation System Policies

Comment 41: Delete regional bus designation on Walker Road east of Cedar Hills Boulevard on Figure 1.16 to reflect that regional bus service would not provided on this segment due to location of Sunset and Beaverton transit centers. (Washington County, 6/12/00)

JPACT Recommendation on Comment 41: Amend as requested. In addition, designate Park Way from Walker Road to Sunset transit center as regional bus. The regional bus service designation on Walker Road east of Cedar Hills Boulevard was made in error. The regional bus service designation should have continued north from Walker Road along Park Way to connect to Sunset transit center.

Comment 42: The following changes should be made to the Regional Public Transportation System Map (p 1-39) and/or the Transit Service Strategy map (p 5-13) to be consistent with City of Portland policies and/or existing and planned Tri-Met service. (City of Portland, 6/21/00)

1. **N Graham between Interstate and Williams:** Delete as a Regional Bus. Service on this street would be duplicative of proposed service on N Russell.

2. **N/NE Columbia:** Show Regional Bus designation between 21st and 47th rather than 33rd to 47th to reflect existing service.

3. **SE 26th/SE 28th:** Change alignment to SE 26th between Division and Gladstone, SE Gladstone between SE 26th and 28th, and SE 28th between Gladstone and Woodstock to reflect existing and planned transit service.

4. **SE 20th/SE 21st:** Show SE 20th between Sandy and Division and SE 21st between Division and Powell as Regional Bus to reflect Tri-Met's planned service.

5. **NE 102nd:** Show 102nd between Glisan and Sandy as a Rapid Bus. Tri-Met will use this street segment between Gateway and Parkrose instead of I-205 to provide Rapid Bus service.

6. **SE Holgate:** Extend Regional Bus designation on Holgate to 122nd to reflect existing service.

7. **SE Harold:** Extend Regional Bus designation on Harold to 122nd to reflect existing service.

8. **SE 111th:** Delete as Regional Bus. The service on Holgate and Harold use 136th as turn arounds for the # 17 and 10 routes, not 111th.

9. **I-5:** Show transit designation on I-5, since bus service (and HOV lanes in north I-5) is currently running and is likely to continue. Portland classifies I-5 as a Regional Transitway.

10. **SW Salmon:** Change SW Salmon from transit mall to SW 1st to Frequent Bus to match designation west of transit mall. Also, connection from SW Salmon at SW 1st to the Hawthorne Bridge as Frequent Bus.

11. **SW Terwilliger:** Add Regional Bus designation to Terwilliger from Taylors Ferry to Barbur to reflect existing service. This segment is currently classified as a Major City Transit Street; the city is considering lowering the classification to a Transit Access Street but feel it should have service above Community Bus.

12. **Transit stop locations:** Delete transit stop at SW College and 9th (approximate). This stop is not needed because the Central City Streetcar alignment has changed.

13. **Central City Streetcar:** Revise Central City insert to reflect currently planned alignment using Mill between 6th and 10th Avenue, Market between 5th and 10th Avenue, 5th between Market and Montgomery and a NW-SE diagonal line between 6th/Mill intersection and 5th/Montgomery intersection.

14. **Macadam Corridor Frequent Bus:** Distinguish on the map that Macadam Avenue extends between Downtown and Lake Oswego as Frequent Bus. This line is clear on the Central City insert map but seems to disappear on the regional map.

15. **Macadam Corridor Commuter Rail:** The potential commuter rail line should indicate alternative alignments, one using the current Willamette Shore alignment, the other using the adopted rail corridor alignment in the Johns Landing Master Plan. Depending on the vehicle type, one alignment may be more appropriate over the other. This could also be clarified in the RTP text in the Specific Corridor Refinements section of Chapter 6 (discussing Macadam/Highway 43).

JPACT Recommendation on Comment 42: Amend Regional Public Transportation system Map (Figure 1.16) and Transit Service Strategy Map (Figure 5.4) as requested. In addition, add the following language to Chapter 6 as requested:

6.7.5 Specific Corridor Refinements

Macadam/Highway 43
phasing of future streetcar commuter service or commuter rail in this corridor to provide a high-capacity travel option during congested commute periods, using either the Willamette Shore Line right-of-way, the John's Landing Master Plan rail corridor or other right-of-way as appropriate.

Comment 43: Add a major bus stop designation to Figure 1.19 on Molalla Avenue in the vicinity of Warner Milne Road or Beavercreek Road and at the Amtrak rail station to connect the inter-city passenger service with the regional bus service. (Oregon City, 5/1/00)

JPACT Recommendation on Comment 43: Amend as requested.

Comment 44: Add a regional bus route on Main Street and Washington Street between the downtown transit Center and Highway 213 in Oregon City. (City of Oregon City, 5/1/00)

JPACT Recommendation on Comment 44: No change recommended. While a major transit stop is designated at the future Amtrak station and regional bus service is appropriate to link the station to the Oregon City regional center, it is not readily apparent how regional bus service could be routed to best serve this purpose. This comment will be forwarded to the South Corridor Transportation Alternatives Study with direction from RTP staff to consider how this service could be provided. Study recommendations will be considered for inclusion in the RTP.

Comment 45: The RTP should extend Rapid Bus designation from Tigard to Tualatin and Sherwood. Commuter rail in this corridor is unlikely to provide frequent all-day service available with Rapid Bus. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 45: At this time, the RTP has designated Commuter Rail as the preferred high capacity transit improvement to Sherwood and Tualatin. Commuter rail studies are underway and are a high regional priority to receive funding. While currently being considered for pear-hour service, off-peak service can be added as demand warrants. Regional bus service is still designated for Sherwood and Tualatin with the ability for through service to Portland on the Barber Boulevard Rapid Bus route.

Comment 46: Highway 217 Corridor should include a study for the potential of a combined commuter rail and light rail corridor (with specific study recommendations). (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 46: Commuter rail is the preferred high capacity improvement in this corridor at this time. Joint commuter and light rail service in the same corridor would duplicate service at greatly increased costs. Many of the same benefits of providing new light rail service could be achieved by increasing headways of commuter rail service or adding additional stations if warranted. No change recommended.

Comment 47: The railroad tracks along McLoughlin/Highway 224 Corridor should be improved to support inter-city passenger trains at the best possible speed. Review potential to provide speeds faster than 79 mph. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 47: The RTP already designates this corridor for high-speed inter-city passenger rail service. ODOT has studied this corridor and has recommended a set of gradual improvements to the corridor to implement this service. The RTP recognizes and supports these recommendations which call only for improvements allowing up to 79 mph service within the region in the foreseeable future. No changes recommended.

Comment 48: The RTP should designate Rapid Bus on the Beaverton - Tigard corridor with a stop at Washington Square. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 48: At this time, the RTP has designated Commuter Rail as the preferred high capacity transit improvement to Sherwood and Tualatin. Commuter rail studies are underway and are a high regional priority to receive funding. While currently being considered for pear-hour service, off-peak service can be added as demand warrants. Frequent bus is designated generally in this corridor along Hall Boulevard, providing all day local service in the corridor but with frequent headways between buses.

Comment 49: The RTP should study use of the railroad bridge between Milwaukie and Lake Oswego as a transit bridge with either rail shuttle service, a freight rail - bus transit facility. If bus improvements are feasible consider a Clackamas - Milwaukie - Lake Oswego - Tigard - Beaverton Rapid Bus designation using this route. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 49: The RTP does call for a study (Project 5172) for future commuter rail service between Lake Oswego and Portland in which use of this bridge will be considered. During the process to define the scope of this future study, it would be appropriate to request consideration of bus improvements to the bridge. Until that completion of such a study, frequent bus is the preferred designation between Lake Oswego, Tigard and Beaverton.

Comment 50: The Strategic system should include a Lents transit center improvement. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 50: Agree, this is project 1011 in the plan. Amend Figure 1.16 - Regional Public Transportation System map to include a transit center designation.

Comment 51: Add a 102nd/112th Avenue regional bus between Lents and Gateway to the Strategic transportation system. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 51: Section 3.4.2, describing improvements needed to the Lents town center, recommends provision of new north/south local bus service between Clackamas Town Center, Lents and Gateway generally along 92nd and 102nd Avenues. JPACT does not recommend a specific route for this service at this time without further study.

Regional Bicycle and Pedestrian System Policies

Comment 52: Delete transit/mixed-use corridor designation on Walker Road east of Cedar Hills Boulevard on Figure 1.19 to reflect that regional bus service would not provided on this segment due to location of Sunset and Beaverton transit centers. (Washington County, 6/12/00)

JPACT Recommendation on Comment 52: Amend as requested. In addition, designate Park Way from Walker Road to Sunset transit center as transit/mixed-use corridor. The transit/mixed-use corridor designation on Walker Road east of Cedar Hills Boulevard was made in error, reflecting an error on the Regional Public Transportation System Map. The transit/mixed-use corridor designation should have continued north from Walker Road along Park Way to connect to Sunset transit center to support regional bus service along this corridor.

Comment 53: Amend Figure 1.18 (Regional Bicycle System) and Figure 1.19 (Regional Pedestrian System) in the final draft of the 2000 Regional Transportation Plan to include the following changes:

- expand the North Willamette Greenway to include the Steel Bridge to St. John's section
- add the Fanno Creek Greenway from the Willamette River to the Tualatin River

(Metro Regional Parks and Greenspaces, 6/28/00 and Willamette Pedestrian Coalition, Brian Newman, and Bob Acres, 6/29/00)

Comment 54: Add the I-84/Banfield trail from the Willamette River and Eastbank Esplanade Trail to the I-205 bike path. (Brian Newman, Willamette Pedestrian Coalition, 6/29/00; Morgan Will, 6/29/00; Bob Akers, 40 Mile Loop Land Trust, 6/29/00)

Comment 55: Add the following multi-use paths to the RTP as essential elements of the regional trail system:

- Fanno Creek Greenway Trail connecting the Willamette River Greenway from Willamette Park in Portland to the Tualatin River.
- North Willamette River Greenway Trail from the St. Johns Bridge to the Steel Bridge.
- I-84 Banfield Trail from the Willamette River and Eastbank Esplanade Trail to the I-205 bike lanes.

(Mike Houck, Audobon Society of Portland; Natural Resources Working Group of Coalition For A Livable Future, 6/13/00)

JPACT Recommendation on Comments 53, 54 and 55: Amend as requested. Add the I-84/Banfield trail to the RTP as requested, based on citizen testimony and Metro Council discussion at the June 29, 2000 public hearing. Add this concept with a dashed line to the Regional Bicycle System map (Figure 1.18) as proposed regional off-street corridor, and with a dashed line to the Regional Pedestrian System map as a proposed multi-use facility with pedestrian transportation function. Add as a feasibility study to the Preferred System in Appendix 1.1. Add Fanno Creek Greenway multi-use path and North Willamette River Greenway Trail to the Regional Bicycle and Regional Pedestrian System maps as requested. In sections where specific alignments are not identified, a dotted line will represent the proposed off street regional corridor on the Regional Bicycle System map, and a dotted line will represent the proposed multi-use facility with pedestrian transportation function on the Regional Pedestrian System map.

Comment 56: Add a future 40-Mile Loop trail segment to the RTP. The segment could be added as dashed line from 223rd Avenue at Marine Drive eastbound and north of Reynolds Metals, then southbound to new development in the Troutdale town center. (Bob Akers, 40 Mile Loop Land Trust, 6/29/00)

JPACT Recommendation on Comment 56: Amend as requested. Add this concept with a dashed line to the Regional Bicycle System map (Figure 1.18) as proposed regional off-street corridor, and as a dashed line to the Regional Pedestrian System map as a proposed multi-use facility with pedestrian transportation function. Add as a feasibility study to the Preferred System project list in Appendix 1.1.

Comment 57: Add the East Buttes Loop Trail to the RTP. (Bob Akers, 40 Mile Loop Land Trust, 6/29/00)

JPACT Recommendation on Comment 57: No change recommended. Defer addition of the East Buttes Loop multi-use path to the RTP, pending completion of the Pleasant Valley/Damascus Planning Study.

Comment 58: Add an extension of the North Willamette Greenway trail to the RTP. Extend the North Willamette Greenway north of the St. Johns Bridge to Pier Park, and connect to Smith and Bybee Lakes and to Kelly Point Park. (Bob Akers, 40 Mile Loop Land Trust, 6/29/00).

JPACT Recommendation on Comment 58: Amendment recommended. Segments of this proposal currently exist on the RTP Regional Bicycle System Map (Figure 1.18) as regional access bikeway, community connector bikeway and proposed regional corridor (off street) bikeway. Segments of this proposal are also included in the 1992 Metropolitan Greenspaces Master Plan and the 1996 (updated 1998) City of Portland Bicycle Master Plan. The missing link is the connection from Pier Park to Smith and Bybee Lakes. Add this concept from Pier Park to Smith and Bybee Lake as follows:

- as a dashed line to the Regional Bicycle System map (Figure 1.18) as proposed regional off-street corridor;

- as a dashed line to the Regional Pedestrian System map as a proposed multi-use facility with pedestrian transportation function; and
- add as a feasibility study to the Preferred System project list in Appendix 1.1.

Comment 59: The Regional Pedestrian System for SW Portland as portrayed on Figure 1.19 of the Regional Transportation Plan is incomplete and not representative of the wishes of the residents of SW Portland. The transit streets are noisy, congested, feel dangerous, and are not pleasant places to walk. No one will walk there unless they live there or have no other choice. The system shows the transit corridors, which has little to do with the pedestrian needs of this community. The SW Trails Group, a committee of SW Neighborhoods Inc, and including representatives of the SW Hills Residential League are completing a 4-year effort designed to identify the major connections where people desire to walk. This effort has resulted in the identification of 7 Urban Trails. A copy of the routes is being sent under separate cover. I propose these 7 routes be added to the Regional Pedestrian System along with the Terwilliger pedestrian path. (Don Baack, 6/29/00)

JPACT Recommendation on Comment 59: Decisions regarding the 7 urban trails should be made by the City of Portland within the context of the Southwest Urban Trails Plan and the City's TSP. The SW Trails Group should be commended for the significant undertaking of drafting the Southwest Urban Trails Plan, which includes the seven routes described above. Recently the plan was removed from the June 21, 2000 Portland City Council agenda to allow additional time for input from concerned citizens and other interested parties. It is important that issues of concern or disagreement regarding this plan be resolved prior to Portland City Council's adoption so that all partners can share in this vision.

Comment 60: The Regional Bicycle System proposals are more reasonable. The following changes in the regional system in SW Portland will improve the system by making it safer by moving bikes to little used local streets. Streets to be added:

- SW Ralston from Barbur to Terwilliger to provide a safer connection between Capitol Highway and Barbur, and to allow safer passage to Barbur and Terwilliger to proceed westbound on Barbur.
- SW Laview from Taylors Ferry to Corbett, Corbett to Custer, Custer to 4th /5th under the northbound ramp to I-5 from Terwilliger Blvd. A portion of this connection will be constructed in the near fall 2000.
- A new route from Hillsdale to Fairmont as an alternative to the route up Dosch Road, a very dangerous place to ride. From Hillsdale follow Cheltenham to Westwood Drive, Westwood Drive to Mitchell Street, Mitchell to Fairmont, Fairmont to Talbot, Talbot to Patton.
- Add an additional route from Patton and Hewitt along Hewitt to Scholls/Skyline. (Don Baack, 6/29/00)

JPACT Recommendation on Comment 60: Oregon state law allows bicyclists to share the road with motorists, with the exception of some urban freeways. Bicyclists can legally ride on little used local streets such as Ralston and Laview, as well as busier streets such as Terwilliger, Capital Highway, Barbur Boulevard and Dosch Road. The proposed changes are local in nature and should be deferred to the City of Portland' TSP process. Rather than make changes to the Regional Bicycle System map, it would be more appropriate to include the local alternative streets described above in the 2001 edition of Metro's Bike There map.

Comment 61: I strongly support a heavy emphasis upon pedestrian, bicycle and transit projects throughout the plan. Whenever possible, I encourage projects to link together the regional multi-use trail network. Metro should analyze the multi-use trail system for gaps, and fill those gaps wherever possible. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 61: Comment and support noted. Policy 16.0 (Regional Bicycle System) states the importance of providing a network of safe and convenient bikeways.

Comment 62: Add an I-84/I-205/Tillamook Multi-use Connector to the Regional Bicycle System map (Figure 1.18). The 122nd Avenue to I-205 segment is an important link for the regional trail system. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 62: Amendment recommended. Add I-84 as a proposed off-street regional corridor from the existing I-205 multi-use path to the existing I-84 multi-use path at NE 122nd Avenue. Show the proposed corridor on Figure 1.18 as a dashed line. Add this segment to the Preferred System project list in Appendix 1.1 as a feasibility study.

Comment 63: All multi-use trail crossings of major or minor arterials should be grade separated. In reaching a final draft, Metro should identify every point at which a multi-use trail crosses an arterial and mark that intersection for a grade-separated crossing on the preferred plan. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 63: Grade separation of multi-use trails at major and minor arterials is a specific project development and design issue, not a systemic RTP issue. No changes recommended.

Comment 64: Interstate 5 North design should include a multi-use path with grade separated arterial crossings from the Interstate Bridge to the Rose Quarter. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 64: The Regional Bicycle System map (Figure 1.18) includes two north-south regional corridor bikeways, Denver/Interstate and Vancouver/Williams, that are parallel to I-5. No changes recommended.

Comment 65: The Willamette Shoreline corridor is well worth preserving and to do so the rail should be converted to a trail using the rails to trails federal legislation designed for this purpose. The conversion would still preserve the corridor for future rail use. (City of Lake Oswego, 5/9/00)

JPACT Recommendation on Comment 65: The Willamette Shoreline is shown on the Regional Bicycle System map in Chapter 1 of the RTP as a proposed regional off-street corridor. The dotted line representing the corridor is not intended to identify a specific alignment. Also, a rail/trail feasibility study is identified as a project in the RTP financially constrained system. The Willamette Shoreline is also shown on the Regional Public Transportation System map (Figure 1.16) with a potential commuter rail designation. The rail/trail feasibility study described above must be completed before a decision can be made on rail to trail conversion or rail and trail operation.

Comment 66: Regarding existing and future bikeways, envision safety, create better future bikeways and improve existing bike lanes. A half-foot wide bike lane near the edge of a narrow winding

road like in the Northwest suburban area creates a hazardous situation for both motorist and bicyclist. (Raj Gala, 5/13/00)

JPACT Recommendation on Comment 66: RTP Policy 16.0 (Regional Bicycle System Connectivity) speaks to a safe and convenient regional bikeway system consistent with regional street design guidelines. A half-foot wide bike lane is substandard. The preferred design width for bike lanes on regional streets is 6 feet for new construction and 5 feet on retrofit projects. Minimum bicycle lane width of regional streets in urban areas is 4 feet.

Comment 67: The McLoughlin/Highway 224 Corridor should include a separated multi-use path with direct connections to the Willamette Riverfront Trail, Springwater Trail and I-205 multi-use path. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 67: No change recommended. The Regional Bicycle System map (Figure 1.18) includes on-street regional corridor bikeways in the McLoughlin/Highway 224 Corridor.

Comment 68: The Highway 217 corridor should include a parallel multi-use path to connect the planned multi-use path along Highway 26 to the planned Fanno Creek Greenway path (project 3071). (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 68: The Regional Bicycle System map (Figure 1.18) includes on-street regional corridor bikeways on Canyon Road and Scholls Ferry Road to connect Highway 26 to the Fanno Creek Greenway. Figure 1.18 also includes a proposed off-street regional corridor bikeway, the Beaverton Creek Greenway that parallels Highway 217 from the Fanno Creek Greenway to Beaverton as well as a community connector bikeway on Cedar Hills Boulevard. No changes recommended.

Chapter 2

Comment 69: Clarify second and third paragraph on page 19 in *Supplemental Revisions to 1999 Regional Transportation Plan*. Current text is confusing. (Washington County, 6/12/00)

JPACT Recommendation on Comment 69: Amendment recommended. Revise the second paragraph under Section 2.3 on page 19 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "These subareas were used for governmental coordination purposes to illustrate facilities which serve related city, county and district areas as part of the functional plan role of this RTP. The location and boundaries of these subareas are for analysis purposes only, and roughly ~~was based on the~~correspond to county boundaries.~~2040 design types of central city, regional center and industrial areas. As an aid to 2040 Growth Concept implementation, these subareas are related to the functional plan role of this RTP, not the regional TSP."~~

In addition, revise the first paragraph under Section 2.4 on page 19 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "The TPR requires that the regional TSP reduce reliance on the automobile as measured by vehicle miles traveled per capita. Providing opportunities for people to make ~~F~~fewer ~~trips~~ and shorter trips can reduce vehicle miles traveled per capita. As one part of the 2040 Growth Concept policy to balance jobs and housing, this subregional analysis serves as the basis for

findings in Chapter 3 and Chapter 5, which establish the impact of expected growth in population, households and employment on regional transportation corridors that serve key 2040 design types. ~~combines regional center areas for a general analysis of the large regional center areas for a general analysis of the large major regional transportation corridors.~~ These corridors have the greatest traffic volumes and the longest trips among the highest concentrations of jobs and housing in the region. This subregional analysis serves as the basis for understanding trip patterns based on the location of jobs and housing throughout the region and is ~~a~~ one tool for identifying ~~ways~~ opportunities to reduce the number and length of trips in these high volume corridors based on those trip patterns."

Comment 70: Clarify first paragraph in Section 2.5 on page 19 in *Supplemental Revisions to 1999 Regional Transportation Plan* to reflect that Priority System "adequately" meets regional transportation system needs, rather than meets all transportation needs identified by No-Build System. "(Washington County, 6/12/00)

JPACT Recommendation on Comment 70: Amendment recommended. Revise first paragraph in Section 2.5 on page 19 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "If no new transportation projects or programs are constructed, the estimated population and employment growth will impact the existing regional transportation system. This No-Build System shows where additional regional transportation system needs are created by that growth. The regional TSP, then, adequately addresses those needs in the Priority System in Chapter 5. "

Comment 71: Do not drop the "Existing Resource System" from the RTP. (Steve Larrance, 6/29/00)

JPACT Recommendation on Comment 71: No change recommended. The recommendation to replace the "Existing Resource" system with the "Financially Constrained" system in the main body of the RTP document is in response to a specific request by the Federal Highway Administration. While it would be possible to include both systems in the plan, staff's recommendation is based on the confusion that it would create, since the financial impact of the systems is very similar.

Comment 72: Amend the financially constrained system to reflect changes in ODOT priorities to use existing revenue for operations and maintenance only. (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 72: No change recommended. The financially constrained system projects identified by ODOT did not assume that the gas tax measure would pass, and instead reflected the use of existing capital forecasted over the 20 year plan period.

Chapter 3

Comment 73: Add a separate map (figure) to Chapter 3 of the RTP that shows the existing and planned Regional Trails System (adopted as part of the Greenspaces Master Plan and the Regional Framework Plan). This map should also include a specific category that identifies which trails are included in the 2000 RTP. (Metro Regional Parks and Greenspaces, 6/28/00)

JPACT Recommendation on Comment 73: Amend as requested.

Comment 74: Figure 3.2 Existing and Planned Regional Bikeways under-represents funded bikeway improvements in Washington County. It is unclear why only funded facilities are defined as bicycle lanes and paths in the legend while all other elements of the legend are bikeways. For mapping consistency all elements of the legend should probably be defined as bikeways. Bikeway improvements funded under MSTIP3 (in which bikeway design is not determined until project development) should be reflected as funded on the map. (Washington County, 6/12/00)

JPACT Recommendation on Comment 74: Amend as requested. Metro staff will coordinate with Washington County staff to ensure that funded bikeway improvements in Washington County, including MSTIP3, are described in Figure 3.2.

Comment 75: Revise Western Economic Alliance label on Figure 3.4 (Existing and Proposed Transportation Management Associations) to read, "~~Western~~ Westside Economic Alliance. "(Washington County, 6/12/00)

JPACT Recommendation on Comment 75: Amend as requested.

Comment 76: The TMA map in Chapter 3 shows Beaverton as a planned TMA, but a Beaverton TMA is not included in the RTP Project list. (Margaret Middleton, City of Beaverton, 06/29/00)

JPACT Recommendation on Comment 76: This is a clerical error. Revise the RTP project list to include Beaverton TMA in the preferred, strategic and financially constrained systems. Estimated cost should be shown with an asterisk and referenced to RTP project number 8056, which includes the estimated cost of future TMA start-ups based on current TMA funding projected to 2020.

Chapter 4

Comment 77: RTP needs to analyze how to finance and provide adequate off-peak local transit service to provide an alternative to driving to the entire region. These costs should be compared to the costs of providing additional vehicle capacity on the road system. Specific recommendations on how Tri-Met could become more cost-efficient. (Bruce M. Pollack, 6/29/00)

JPACT Recommendation on Comment 77: The RTP does analyze what it would cost to provide more off-peak community transit service. Of the new transit service proposed in the Strategic transportation system 23.2% of the new transit service hours are for increasing headways during the off-peak hours on existing transit routes (includes community and regional transit routes), 9.7% is for increasing the length of the service day on existing routes (includes community and regional transit routes), and 30.8% is for new transit service coverage (new routes, most of which is community service). The cost of operating this service is roughly an additional $32 million per year to current expenditures by Tri-Met and SMART. These operating costs would increase over time to approximately an additional $186 million per year needed by 2020. There would also be capital costs associated with purchasing additional vehicles and maintenance facilities needed to provide this new service. New buses for this additional service would costs approximately $229 million in 1998 dollars.

There is no equivalent road projects for which to compare the costs of providing additional transit service. The concern that additional road capacity will be added without first considering other measures,

such as additional transit service to address transportation needs, is addressed by Section 6.6.3 of the RTP which requires consideration of alternatives to address congestion prior to increasing road capacity. Both road and transit improvements are needed for the RTP to successfully implement state and regional planning goals.

Specific recommendations on how Tri-Met could become more cost-efficient will be forwarded to Tri-Met for their consideration.

Chapter 5

Comment 78: Modify Section 5.4 and add new Section 6.8.14 to the RTP to reflect new transportation financing principles, funding concepts and an implementation strategy. (JPACT, 6/8/00)

JPACT Recommendation on Comment 78: Amendment recommended. See Attachment "B" for modified Section 5.4 and add the following new section 6.8.14:

6.8.14 Financial Implementation

JPACT will convene a committee to address transportation funding issues. This committee will consider the information and concepts addressed in Section 5.4 and report back to JPACT with a funding implementation strategy and an analysis of how the strategy addresses the principles identified in Section 5.4.1.

JPACT and its transportation funding committee will work with other government agencies, private sector and non-profit agency efforts to address transportation funding in the state and region as it considers its implementation strategy. This effort will lead to proposals for new sources of transportation revenue to build, operate and maintain the RTP Priority system.

Comment 79: More attention should be given to funding the RTP, including the mechanisms and a preferred approach to close the funding gap over 20 years. (Westside Economic Alliance, 6/28/00)

JPACT Recommendation on Comment 79: No change recommended. During the final phases of the RTP update, JPACT, MPAC and the Council have engaged in a number of detailed discussions on transportation finance, but a specific direction was not identified for the RTP. Instead, officials have directed the RTP to provide a range of funding scenarios that will inform an upcoming, post-adoption effort to identify new funding sources. This approach is also consistent with TPR requirements that transportation plans identify funding sources for needed improvements, but not necessarily a specific funding plan.

Comment 80: Absent a commitment for funding the plan, an annual progress report should be developed to identify the consequences of not obtaining funding for the strategic system. (Westside Economic Alliance, 6/28/00)

JPACT Recommendation on Comment 80: Such a report is proposed in Metro's work plan, but has not been completed in the past due to budget restrictions. Metro intends to produce such a

document as part of developing benchmarks, as specified in Section 6.5.3 of the draft plan. These benchmarks would be created as part of the next MTIP cycle.

Comment 81: Revise Section 5.4.1 to tie the region's choice of funding sources to accomplishing specific policy goals. Specifically, add the following language, "1) Increase the amount of land within the urban growth boundary available for development by reducing the area devoted to transportation needs, 2) Reduce the need for new road capacity by encouraging the most efficient use of the existing capacity, 3) Reduce traffic and congestion, 4) Encourage alternative modes of transportation including transit, biking and walking, 4) Reduce VMT, 5) Reduce air pollution and other environmental impacts from transportation uses, 6) Recover the full social costs of transportation choices from users and 7) Encourage the highest and best use of transportation facilities."

(Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 81: No change recommended. These considerations are most appropriately addressed as part of the MTIP process where the most current regional priorities can be incorporated into funding decisions.

Comment 82: The discussion of Transit Discretionary funds (Section 4.1.1) should mention the $475 million bond authorized by voters in 1994 for light rail to Clark and Clackamas Counties. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 82: No change recommended. Section 4.1.1 describes federal funding that may be appropriated to this region, not a description of local funding sources. Section 4.1.3 describes property taxes as a source of local revenues and Section 4.4.3 (proposed to be moved to Section 5.4.2) describes property tax bonding as a potential source of new revenues for transportation. All four of the funding concepts for the Strategic system in Section 5.4.3 include property tax general obligation bonds as the means to match federal grants for transit capital projects. JPACT does not recommend mentioning the 1994 bonding authority specifically.

Comment 83: Include local excise taxes, such as a tax on parking spaces as a potential source of revenue. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 83: Agree, language summarizing the potential for a fee on non-residential parking spaces has been recommended by Metro staff in the June 22, 2000 memorandum to JPACT to be included in Section 5.4.2.

Comment 84: Include a transit utility fee, in which public transit is treated as a utility, as a possible new funding source. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 84: Amendment recommended. Section 5.4.2 describes the potential for assesment of a road maintenance fee as a means of paying for road maintenance. Funding concept 3 in Section 5.4.3, however, discusses the possibility of using such a fee to provide for transit operations. Amend Section 5.4.2, Special Fees and Levies to clarify that such fee could be used for transit operations as follows:

"**Road Maintenance - Transit Utility Fee.** A road maintenance or transit utility fee is a general assessment of properties for maintenance and/or operation of the transportation system that serves the property . . . Rates could be adjusted to collect revenues equal to all or some portion of the cost to maintain each jurisdictions road system or to provide transit service to an area."

Comment 85: Section 4.4.1 should mention toll facilities as a potential source of revenue and allowed under ORS Chapter 383. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 85: Section 4.4.1 (Proposed as Section 5.4.2) includes peak period pricing (tolling) as a potential new transportation revenue source. Studies are currently underway to evaluate the potential to apply peak period pricing in the region.

Comment 86: Revise Figure 5.16 (North Washington County Map) narrative of project #3136 to read, "Widen the street to three lanes from Baseline Road to ~~Airport~~ Cornell Road and..." (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 86: Amend as requested.

Comment 87: Revise Figure 5.16 (North Washington County Map) narrative of project #3134 to read, "Widen the street to ~~five~~ three lanes from Tualatin Valley Highway to Baseline Road." (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 87: Amend as requested.

Comment 88: Revise Figure 5.16 (North Washington County Map) to change road names indicating 219th Avenue and 216th Avenue and replace them with Cornelius Pass Road from Cornell Road to Tualatin Valley Highway. (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 88: Amend as requested.

Comment 89: Revise Figure 5.16 (North Washington County Map) to add label for Project #3126 adjacent to #3134 label to reflect that both projects are included in the Strategic System during different time periods (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 89: Amend as requested.

Comment 90: Revise Figure 5.16 (North Washington County Map) to add Project #3126 during the 2006-2010 time period. (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 90: Amend as requested.

Comment 91: Revise Figure 5.16 (North Washington County Map) to revise time period for Project #3128 to be 2001-2020 to reflect Appendix 1.1. (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 91: Amend as requested.

Comment 92: Revise Figure 5.16 (North Washington County Map) to resolve time period conflict for project #3223. The project is listed in Appendix 1.1 for the 2011-2020 time period and in Figure 5.16 in the 2006-2010 time period. (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 92: Amend as requested.

Chapter 6

Comment 93: Revise third bullet on page 28 in *Supplemental Revisions to 1999 Regional Transportation Plan* to remove reference to local travel needs. There are many non-regional (e.g. local) needs that are not addressed in the RTP. In addition, clarify the second sentence under this bullet to reflect that the Preferred System is established to meet all regional transportation needs, rather than the Priority System as is implied by the revised language. (Washington County, 6/12/00)

JPACT Recommendation on Comment 93: Amendment recommended. Revise the second sentence in the third bullet on page 28 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "For the purpose of complying with this requirement, the Priority System in Chapter 5 of the RTP establishes a ~~transportation needs relevant to the Metro area. The~~ scale of the improvements ~~in the Priority System~~ that are adequate ~~for~~ to meet state, and regional ~~and local~~ travel needs in the Metro area, including... " The reference to the Preferred System is not appropriate in this section because the Priority System is the system used to comply with the Transportation Planning Rule requirements.

Comment 94: Revise first paragraph on page 35 in *Supplemental Revisions to 1999 Regional Transportation Plan* to convey that the Priority System addresses most congestion (not all) and that refinement plans and local transportation system plans may reveal additional transportation needs that are appropriately dealt with in the RTP. (Washington County, 6/12/00)

JPACT Recommendation on Comment 94: No change recommended. Section 6.4.8 and 6.6.2 in Chapter 6 of the RTP clarify the process for amending the RTP based on more detailed evaluation of the local transportation system as part of refinement plans and local transportation system plan development.

Comment 95: Revise last sentence in first paragraph of Section 6.4.7 on page 34 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "Jurisdictions may adopt ~~other minimum~~ alternative standards that ~~do not exceed~~ allow less vehicle delay than the minimum LOS established in Table 1.2~~, but the use of higher~~ However, the alternative standards must not: ..." (City of Beaverton, 5/10/00)

JPACT Recommendation on Comment 95: Amendment recommended as follows: "Jurisdictions may adopt ~~other minimum~~ alternative standards that do not exceed minimum LOS established in Table 1.2~~, but the use of higher~~ However, the alternative standards must not: ..."

Comment 96: Revise last sentence in first paragraph of Section 6.4.9 on page 36 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "Therefore, Metro will accept local plans under the following ~~three~~ four options." (City of Beaverton, 5/10/00)

JPACT Recommendation on Comment 96: Amend as requested.

Comment 97: The proposed language in Section 6.4.10 on page 37 in *Supplemental Revisions to 1999 Regional Transportation Plan* would establish standards that are difficult to interpret for a specific site and allow no flexibility to contend with other requirements such as steep grades and wetlands. The amendments to subsection #1 are unnecessary, and should be deleted, because local jurisdictions are already complying with the TPR. (City of Beaverton, 5/10/00)

JPACT Recommendation on Comment 97: No change recommended. The proposed language is included for the purpose of RTP consistency with OAR 660-12-0045(4). In addition, Comment 49 further amends Section 6.4.10 in response to direction from JPACT to provide additional language concerning major transit stops and pedestrian districts to reflect provisions in OAR 660-12-0045(4)(c).

Comment 98: Modify the RTP language regarding Major Transit Stops to allow:

- the option for a developer to provide a pedestrian plaza at a major transit stop rather than constructing a building within 20 feet of the stop; and
- the option for a jurisdiction to meet or exceed the requirements of at major transit stops through the implementation of a pedestrian or other planning district.

(JPACT, 5/28/00)

JPACT Recommendation on Comment 98: Amendment recommended. Add new language to Section 1.3.5 in Chapter 1 under regional transit network components to more clearly define major transit stops:

> **Major transit stops.** Major transit stops are intended to provide a high degree of transit passenger comfort and access. Major transit stops are located at stops on light rail, commuter rail, rapid bus, frequent bus or streetcar lines in the central city, regional and town centers, main streets and corridors. Major transit stops may also be located where bus lines intersect or serve intermodal facilities, major hospitals, colleges and universities. Major transit stops shall provide schedule information, lighting, benches, shelters and trash cans. Other features may include real time information, special lighting or shelter design, public art and bicycle parking.

In addition, replace Section 6.4.10 on page 37 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read as follows:

Chapter 6.4.10 Transit Service Planning

Efficient and effective transit service is critical to meeting mode-split targets and the regional transit functional classifications are tied to 2040 Growth Concept land-use components. Local transportation system plans shall include measures to improve transit access, passenger environments and transit service speed and reliability for:

- rail station areas, rapid bus and frequent bus corridors where service is existing or planned; and

- regional bus corridors where service exists at the time of TSP development.

To ensure that these measures are uniformly implemented, cities and counties shall:

1. Adopt a transit system map, consistent with the transit functional classifications shown in Figure 1.16, as part of the local TSP. Consistent with the State transportation planning rule (Section 660-012-0045), amend development code regulations to require new retail, office and institutional buildings to:
   1. Locate within 20 feet of or provide a pedestrian plaza at major transit stops
   2. Provide reasonably direct pedestrian connections between existing transit stops and building entrances on the site
   3. A transit passenger landing pad accessible to disabled persons (if not already existing to transit agency standards)
   4. An easement or dedication for a passenger shelter and underground utility connection from the new development to the transit amenity if requested by the public transit provider
   5. Lighting at a transit stop (if not already existing to transit agency standards).

2. ~~In lieu of (1) above,~~ Consider ~~adopting regulations beyond the minimum requirements of the State transportation planning rule (Section 660-012-0045) or this Regional Transportation Plan to implement their transportation plans~~ designating pedestrian districts or other planning designations and adopting associated development code regulations as a means of meeting or exceeding the requirements of 1 above.

3. Provide for direct and logical pedestrian crossings at transit stops and marked crossings at major transit stops.

4. Consider street designs which anticipate planned transit stop spacing, location, and facilities (such as shelters, benches, signage, passenger waiting areas) and are consistent with the Creating Livable Streets design guidelines.

Public transit providers shall consider the needs and unique circumstances of special needs populations when planning for service. These populations include, but are not limited to, students, the elderly, the economically disadvantaged, the mobility impaired and others with special needs. Consideration shall be given to:

a) adequate transit facilities to provide service

b) hours of operation to provide transit service corresponding to hours of operation of institutions, employers and service providers to these communities

c) adequate levels of transit service to these populations relative to the rest of the community and their special needs

Comment 99: Amend JPACT Recommendation on Comment 98 to add the following underscore language:

1.3.5 Designing the Transportation System
Regional public transportation system components
Regional transit network

Pedestrian district A pedestrian district is a comprehensive plan designation or implementing land use regulations designed to provide safe and convenient pedestrian circulation, with a mix of uses, density, and design that support high levels of pedestrian activity and transit use. The pedestrian district can be a concentrated area of pedestrian activity or a corridor. Pedestrian districts can be designated within the 2040 Design types of Central City, Regional and Town Centers, Corridors and Main Streets, as designated in local plans. Pedestrian districts emphasize a safe and convenient pedestrian environment, and facilities to support and integrate efficient use of several modes within one area (e.g., pedestrian, auto, transit, and bike).

6.4.10 Transit Service Planning

Efficient and effective transit service is critical to meeting mode-split targets and the regional transit functional classifications are tied to 2040 Growth Concept land-use components. Local transportation system plans shall include measures to improve transit access, passenger environments and transit service speed and reliability for:

- rail station areas, rapid bus and frequent bus corridors where service is existing or planned; and
- regional bus corridors where service exists at the time of TSP development.

To ensure that these measures are uniformly implemented, cities and counties shall:

1) Adopt a transit system map, consistent with the transit functional classifications shown in Figure 1.16, as part of the local TSP. Consistent with the State transportation planning rule (Section 660-012-0045), amend development code regulations to require:
   (a) At Major Transit Stops (OAR 660-012-0045 (4c))
      1. Building location within 20 feet of or provision of a pedestrian plaza at the major transit stop
      2. Reasonably direct pedestrian connections between the transit stop and building entrances on the site
      3. A transit passenger landing pad accessible to disabled persons (if not already existing to transit agency standards)
      4. An easement or dedication for a passenger shelter and underground utility connection from the new development to the transit amenity if requested by the public transit provider
      5. Lighting at the transit stop (if not already existing to transit agency standards).

2. And, may designate pedestrian districts in a comprehensive plan or other implementing land use regulations as a means of meeting or exceeding the requirements of OAR 660-012-0045 (4a-c). Pedestrian district designation shall address the following criteria:

   (i)A connected street and pedestrian network, preferably through a local street and pedestrian network plan covering the affected area.

Designated pedestrian districts should specifically consider, but are not limited to these elements: Transit/pedestrian/bicycle interconnection; parking and access management; sidewalk and accessway location and width; alleys; street tree location and spacing; street crossing and intersection design for pedestrians; street furniture and lighting at a pedestrian scale; and traffic speed.
When local transportation system plans are adopted, designated pedestrian districts should be coordinated with the financing program required by the Transportation Planning Rule.

3. Provide for direct and logical pedestrian crossings at transit stops and marked crossings at major transit stops.

4. Consider street designs which anticipate planned transit stop spacing, location, and facilities (such as shelters, benches, signage, passenger waiting areas) and are consistent with the Creating Livable Streets design guidelines.

(Richard Ross, 6/29/00)

JPACT Recommendation on Comment 99: Amend as requested, except add definition of pedestrian district to Title 10 of the Urban Growth Management Functional Plan.

Comment 100: The strategic plan should include study of a Portland streetcar extension to John's Landing. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 100: The strategic transportation system does include the construction of the streetcar to the North Macadam redevelopment area in the vicinity of John's Landing.

Comment 101: The strategic system should include a study of the potential and routes for the streetcar on the eastside (included some specific routes). (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 101: Agree. Add a future study to the strategic list for the potential of and possible routes for the streetcar in inner eastside Portland neighborhoods.

Comment 102: The preferred plan should include bus service from Gateway transit center to Multnomah Falls. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 102: The long range plan recognizes the potential for a new inter-city bus passenger facility in the Troutdale area for private tourist bus operations into the Columbia River Gorge (and other tourist) areas. This service is not a priority for public transit service. No change recommended.

Comment 103: Revise the first word in # 5 in Section 6.8.12 on page 42 in *Supplemental Revisions to 1999 Regional Transportation Plan* to be "assess." (City of Beaverton, 5/10/00)

JPACT Recommendation on Comment 103: Amend as requested.

Comment 104: Revise glossary definition of posted speed on page 45 in *Supplemental Revisions to 1999 Regional Transportation Plan* to add a reference to ORS 811.105 and 811.123, because local codes do not set posted speeds in Oregon. (City of Beaverton, 5/10/00)

JPACT Recommendation on Comment 104: Amend as requested with the following language, "Posted Speed – This term refers to the posted speed limit on a given street or the legal speed limit as defined in ORS 811.105 and 811.123 ~~local motor vehicle codes~~ when a street is not posted.

Comment 105: The RTP should allow as an exception to street connectivity requirements where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995 which preclude required street or accessway connection per the state Transportation Planning Rule. (City of Lake Oswego, 5/20/00)

JPACT Recommendation on Comment 105: Amend as requested.

Comment 106: Revise the connectivity requirements for street and accessway spacing in Chapter 6 to reflect the original intent of Title 6 connectivity requirements, which stipulated that accessway spacing requirements applied when a full street connection is not possible, and were not required in addition to full street connections that meet the connectivity requirement. (City of Portland, 6/14/00)

JPACT Recommendation on Comment 106: Amendment recommended. The original intent of the accessway provisions was inadvertently modified during subsequent revisions to Title 6. JPACT recommends the following revisions to Chapter 6 requirements on page 33 in *Supplemental Revisions to 1999 Regional Transportation Plan* to address this comment:

Section 6.4.5 – Design Standards for Street Connectivity

2. In addition to preparing the above conceptual street plan map, Cities and Counties shall require new residential or mixed-use development that will require construction of new street(s) to provide a street map that:

   a. Responds to and expands on the conceptual street plan map as described in Section 6.4/5/1 for areas where a map has been completed

   b. Provides full street connections with spacing of no more than 530 feet between connections, except where prevented by barriers such as topography, railroads, freeways, pre-existing development or water features where regulations implementing Title 3 of the Urban Growth management Functional Plan do not allow construction of or prescribe different standards for street facilities.

   c. Provide bike and pedestrian ~~connections~~ accessways on public easements or rights-of-way in lieu of streets when full street connections are not possible. Spacing of accessways between full street connections shall be no more than 330 feet, except where prevented by barriers such as topography, railroads, freeways, pre-existing development, or water features where regulations implementing Title 3 of the Urban Growth management Functional Plan do not allow construction of or prescribe different standards for street facilities.

Comment 107: The narrow street provisions in Chapter 6 should be expanded to allow other local street design alternatives, such as woonerfs or urban lanes, that offer similar traffic calming benefits, and use a narrow right-of-way. (City of Portland, 6/14/00)

JPACT Recommendation on Comment 107: Amendment recommended. Revise Chapter 6 requirements on page 33 in *Supplemental Revisions to 1999 Regional Transportation Plan* to address this comment:

Section 6.4.5 – Design Standards for Street Connectivity

3. Street design code language and guidelines must allow for and should encourage the following in support of the above development requirements:

   a. Consideration of narrow street design alternatives. For local streets, no more than 46 feet of total right-of-way, including pavements widths of no more than 28 feet, cur-face to curb-face, sidewalk widths of at least 5 feet and landscaped pedestrian buffer strips that include street trees. Special traffic calming designs that use a narrow right-of-way, such as woonerfs and chicanes, may also be considered as narrow street designs.

Comment 108: The narrow street provisions in Chapter 6 should be clarified to acknowledge the appropriate use of additional right-of-way for swales or other on-site stormwater systems. (City of Portland, 6/14/00)

JPACT Recommendation on Comment 108: No change recommended. It is premature to incorporate provisions on "green" designs until the upcoming Green Streets project has been completed. This project will recommend specific design solutions for on-site stormwater treatment, and recommendations from the Green Streets study will include updates to the street connectivity provisions in the RTP. The Green Streets project is scheduled for completion in Fall 2001.

Comment 109: Section 6.8.1 (Green Streets Initiative) should reference the study of permeable surfaces for streets. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 109: No change is recommended. The RTP outlines the major points of the study, one of which is the development of a best practices guidebook for design solutions where streets and streams meet. While permeable surfaces for streets is something that will be studied as part of the scope of work, it is not necessary to mention this level of detail in a project description in the RTP.

Comment 110: Revise the descriptions of the Highway 99E Area of Special Concern in Chapter 6 on page 40 in *Supplemental Revisions to 1999 Regional Transportation Plan*, as follows (City of Tigard, 6/14/00):

6.7.7 – Area of Special Concern

Highway 99W

The Highway 99W corridor between Highway 217 and Durham Road is designated as a mixed-used corridor in the 2040 Growth Concept, and connects the Tigard and King City town centers. This route also experiences heavy travel demand. The City of Tigard has ~~and Washington County have~~ already examined a wide range of improvements that would address the strong travel demand in this corridor. The RTP establishes the proposed I-5 to 99W connector as the principal route connecting the Metro region to the 99W corridor outside the region. This emphasis is intended to change in the long term ~~changes~~ the function of 99W, north of Sherwood, to a major arterial classification, with less need to accommodate longer, through trips.

However, for much of Washington County, Highway 99W will still be a major connection, linking Sherwood and Tigard to the rest of the County and linking the rest of the County to the Highway 99W corridor outside of the region. A number of alternatives for relieving congestion have been tested as part of the RTP update, and by the City of Tigard in earlier planning efforts. These efforts led to the common conclusion the latent travel demand in the Highway 99W corridor is too great to be reasonably offset solely by capacity projects. While the RTP proposed new capacity on 99W between I-5 and Greenburg Road, no specific capacity projects are proposed south of Greenburg Road, due to latent demand and the impacts that a major road expansion would have on existing development. As a result, this section of Highway 99W is not expected to meet the region's motor vehicle level of service policies during mid-day and peak demand periods in the future, and an alternative approach to managing and accommodating traffic in the corridor is needed.

Since statewide, regional and local travel will still need to be accommodated and managed for sometime ODOT, METRO, Washington County and Tigard should cooperatively address the means for transitioning to the future role of the facility to emphasize serving circulation within the local community. This will include factoring in the social, environmental and economic impacts that congestion along this facility will bring. Additionally the analysis should specifically document the schedule for providing the alternatives for accommodating the regional and statewide travel. Similarly the local TSPs should include the agreed upon action plans and bench marks to ensure the local traffic and access to Highway 99W is managed in a way that is consistent with broader community goals. Additional alternative mode choices should be ensured for Tigard and King City town centers. Tri-Met should be a major participant in the alternative mode analysis. The results of this cooperative approach should be reflected in the local TSPs and the RTP.

~~As such Therefore, the ultimate design and scale of improvements along long term system management of Highway 99W in the heavily congested Tigard section should be evaluated described as part of the Tigard, King City and Washington County TSPs, and factor in the social, financial and environmental impacts that congestion along adding capacity to this facility could bring. The primary function of Highway 99W should be the serve circulation within the local community, and implement the planned mixed used development in the Tigard town center and along 99W where the 2040 Growth Concept corridor designation applies. The local TSPs should also include specific action plans and benchmarks to ensure that traffic growth and access to Highway 99W is managed in a way that is consistent with broader community goals, and to ensure that alternative mode choices are provided in the Tigard and King City town centers.~~ In addition, other possible solutions, such as ODOT's new program for local street improvements along highway corridors, may provide alternatives for managing traffic growth on 99W. Finally, the local TSPs should also consider changes to planned land use that would minimize the effects of growing congestion.

JPACT Recommendation on Comment 110: Amend as requested.

Comment 111: Revise Section 6.7.7 related to Highway 99W section to specify that the Tualatin-Sherwood connector study should evaluate options for reducing traffic on Highway 99W from the intersection with the proposed connector to I-5. (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 111: No change recommended. Section 6.7.5 already directs the Tualatin-Sherwood Connector study to evaluate access management and connectivity improvements along 99W in Tigard and their corresponding impacts on Tigard, Tualatin and Sherwood town centers. In addition, see JPACT recommendation on Comment 110.

Comment 112: Section 6.8.12 on page 42 in *Supplemental Revisions to 1999 Regional Transportation Plan* mentions "Reverse Commute" which is not explained in the text. Clarify the pertinence of this section to the RTP. (Washington County, 6/12/00)

JPACT Recommendation on Comment 112: Amend as requested. Add an opening sentence describing that Job Access and Reverse Commute is a FTA program funded through TEA-21. Define "job access" and "reverse commute" and further describe how the FTA program relates to the Portland Region Job Access Plan and the Regional Job Access Committee.

Comment 113: Clarify the incorporation of TEA-21 requirements for congestion mitigation in the RTP. (1,000 Friends of Oregon, 6/29/00).

JPACT Recommendation on Comment 113: These requirements were formerly contained in Title 6 of the Urban Growth Management Functional Plan, and are now located in Section 6.4.7 (Motor Vehicle Congestion Analysis) and 6.6.3 (Congestion Management Requirements) of the 2000 RTP.

Comment 114: Revise Section 6.6.2 to add a third option for amending the RTP that would allow for consistency with the Regional Framework Plan such that any updates to the Regional Framework Plan or related functional plans would also serve as a basis for updates to the Regional Transportation Plan. (Metro Regional Parks and Greenspaces, 6/28/00)

JPACT Recommendation on Comment 114: Amend as requested.

Comment 115: Revise Section 6.5.2 to add the following language, "Prior to each biennial MTIP process, JPACT shall adopt a recommended funding strategy with specific sources that will fully fund the strategic system during the remaining years in the RTP." (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 115: No change recommended. The purpose of the MTIP is to establish a short-term funding strategy for transportation improvements, not a 20-year strategy for funding the strategic system.

Comment 116: Revise Section 6.4.1 to add the following language, "All local TSPs must demonstrate that the local resources included in projections for the financially constrained system will be used for funding projects in that system." (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 116: No change recommended. It would be inappropriate for Metro to regulate local CIP actions. Metro's role is to guide overall improvements to the regional transportation through allocation of federal funds as part of the MTIP process.

Comment 117: Aggressively implement the benchmarks identified in Section 6.5.3. Revise Section 6.5.3 to read as follows, "In addition, benchmarks ~~should~~shall be designed to track the following information to the degree practicable for on-going monitoring." (Citizens for Sensible Transportation and 1000 Friends of Oregon, 6/29/00)

JPACT Recommendation on Comment 117: No change recommended. Section 6.5.3 directs Metro to develop benchmarks as part of the next MTIP update. It is premature to require the benchmarks to address the referenced bullets until the benchmarks are established.

Comment 118: Revise Section 6.7.3 on page 39 in *Supplemental Revisions to 1999 Regional Transportation Plan* following "...these provisions are simple guidelines for locally funded projects, except that all projects, including locally funded projects must show that they are consistent with Creating Livable Streets: Street Design Guidelines for 2040." (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 118: No change recommended. See JPACT recommendation on Comment 17.

Comment 119: For some time, we have been concerned about the existing jobs/housing imbalance in Clackamas County and the resulting impact on the County's transportation system. More work needs to be done to ensure that the land use and transportation plans are in balance and better coordinated. (North Clackamas County Chamber of Commerce, 6/22/00)

JPACT Recommendation on Comment 119: Comment noted. Addressing the jobs/housing imbalance and better balance and coordination of the land use and transportation plans is a key component of the Regional Framework Plan and the Regional Transportation Plan.

Comment 120: Section 6.8.7, Jobs/Housing Imbalance. Clackamas County requests that Metro include in the RTP a commitment to staff and fund a work program to assist the County in the analysis of rural and EFU land along the Sunrise Corridor for potential use as urban land. If appropriate, designate new areas as Urban Reserves, (which needs to be approximately 2,600 acres for jobs). (Clackamas County Board of Commissioners, 6/29/00)

JPACT Recommendation on Comment 120: Comment noted. A commitment to staff and fund a work program to assist the County is more appropriate for discussion during the adoption process for the annual Unified Work Program.

Comment 121: Add a new section under Section 6.8 (Outstanding Issues) to address affordable housing, "In many areas of the region, lack of access to affordable housing adds strains on the transportation system as people cannot afford housing close to their employment. Funding of affordable housing projects as part of the region's transportation strategy will be evaluated." (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 121: No change recommended. This issue is best addressed as part of the Regional Affordable Housing Plan currently underway. Metro transportation staff will coordinate with affordable housing staff as the regional affordable housing plan is refined, recognizing that recommendations from the regional affordable housing plan may need to be integrated into the RTP during the next RTP update.

Comment 122: Add a new section under Section 6.8 (Outstanding Issues) to address long distance commuters, "There is increasing number of commuters from outside the region. An evaluation of the

impact of this trend on the region's transportation system and Region 2040 plan will be done and options identified for addressing those issues." (Citizens for Sensible Transportation, 6/29/00)

JPACT Recommendation on Comment 122: No change recommended. Section 6.8.3 identifies the need to incorporate ODOT's valley model into the regional model as part of the next RTP update to better evaluate how congestion, parallel routes and distribution of employment in and outside the region affects the region's transportation system. This is an important first step in addressing growth in travel demand between the Metro region and the Willamette Valley. However, other planning activities are already underway with ODOT and DLCD working as lead agencies. Metro will continue to work with these state agencies to ensure that regional interests are reflected in Willamette Valley planning decisions.

Comment 123: Amend Section 6.4.1, Chapter 2, to read as follows, "2020 population and employment forecast...as provided for in Section ~~6.4.8~~ 6.4.9 of this chapter..."(City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 123: Amend as requested.

Comment 124: Amend Section 6.4.7(1), first paragraph, to read as follows, "...and that this level of congestion will negatively impact accessibility, as determined through Section 6.4.7(~~2~~)(b)."(City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 124: Amend as requested.

Comment 125: Amend Section 6.4.7, first paragraph, to read as follows, "...any locations on the Regional Motor Vehicle System Map (Figure ~~1.8~~ 1.12) that are not addressed by the RTP." (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 125: Amend as requested.

Comment 126: Amend Section 6.4.9, first paragraph, to read as follows, "Therefore, Metro will accept local plans under the following ~~three~~ four options." (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 126: Amend as requested.

Comment 127: Amend Section 6.4.9, subparagraph 4, on page 36 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "However, population and employment data and forecasts and the methodology for generating the data and forecasts shall be coordinated..." (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 127: Amend as requested.

Comment 128: Amend Section 6.4.9, subparagraph 4, on page 37 in *Supplemental Revisions to 1999 Regional Transportation Plan* to read, "Subsequent differences in local TSP project recommendations that result from the differences in population and employment forecasts will be ~~resolved~~ incorporated in the next scheduled RTP update." (City of Hillsboro, 6/29/00)

JPACT Recommendation on Comment 128: No change recommended. This proposal was discussed as part of preparing the *Supplemental Revisions to 1999 Regional Transportation Plan.* JPACT recommends that local forecasts that deviate from the regional forecasts be reviewed by Metro technical staff and JPACT as statistically valid prior to being incorporated into the regional forecast.

Comment 129: The narrow street provisions in Chapter 6 and calming devices on local streets could create public safety issues for fire departments in the region. (Larry Derr, 6/29/00 and Michael Kepcha, 6/29/00)

JPACT Recommendation on Comment 129: No change recommended. The narrow street concept has been debated nationally by emergency response professionals, and has proved to be an acceptable practice. In reality, jurisdictions that provide fire protection for older neighborhoods already demonstrate this fact, since statistics have shown little difference in response times in older neighborhoods with narrow streets.

More importantly, the narrow street provisions represent a tradeoff for requiring a higher level of local street connectivity. In this way, the combined effect of these provisions should improve public safety response, since connected street system provide more alternative routes for emergency vehicles, and easier evacuations in emergency conditions.

Comment 130: The corridor study (Section 6.7.6) of Interstate 5 North should include a new fixed-span Interstate bridge with the option of converting existing bridges to local traffic, bikeways and/or transit. There are no specific designs for this project at this time, only a recognized need to provide additional capacity in this area. This comment will be forwarded to ODOT, and the Cities of Portland and Vancouver for consideration during the project design phase. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 130: The RTP currently calls for the construction of additional Interstate Bridge capacity on the Interstate Bridges. To clarify that there is no specific design recommended for this improvement at this time, amend text to read as follows: • construct additional Interstate Bridge capacity ~~on the Interstate Bridges~~.

Comment 131: The corridor study (Section 6.7.6) of Interstate 5 South should include study of a tolled tunnel to eliminate the Terwilliger curves. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 131: No change recommended. The capital expenditure necessary for such a project is not a priority for the potential benefits of a tunnel facility in this area.

Comment 132: The I-205 Transportation solutions should include grade-separated improvements to the multi-use path. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 132: There are no specific designs for this project at this time, only a recognized need to provide improvements to the path at intersections. This comment will be forwarded to ODOT and the City of Portland for consideration during the project design phase.

Comment 133: The McLoughlin - Highway 224 corridor should include the gradual improvement of converting the highway to a freeway (with specific design recommendations). (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 133: RTP recommendations for this corridor already include aggressive access management and grade-separation on Highway 224. Due to potential impacts and costs, a full freeway improvement is not recommended at this time.

RTP Projects

Comment 134: Revise projects 6013 and 6030 to widen Hall Boulevard to five lanes from Scholls Ferry Road to Durham Road to widen the street to three lanes with sidewalks and bike lanes because the projects will:

- contribute to increased congestion
- reduce the taxable property base of the city of Tigard and harm the local economy
- displace small businesses
- create hardship for predominately lower and middle-class families.

In addition, the projects are not identified in the city of Tigard's February 2000 draft TSP. (Alexander Craghead, 5/4/00)

Comment 135: It is inappropriate to widen Hall Boulevard and Greenburg Road to five lanes due to the impact on neighborhoods and businesses. (Trudy Knowles, 6/10/00)

Comment 136: Revise projects 6013 and 6030 to widen Hall Boulevard to five lanes from Scholls Ferry Road to Durham Road to widen the street to three lanes with sidewalks and bike lanes because the projects will: contribute to increased congestion, harm the environment and displace small businesses and homes. In addition, the projects are not identified in the city of Tigard's February 2000 draft TSP. (Jill Tellez, 6/26/00 and CPO 4-M, 6/20/00)

JPACT Recommendation on Comments 134, 135 and 136: No change is recommended. The Washington Square regional center study concluded in September 1999 and recommended a series of projects to improve access by all modes of travel throughout the study area. The Study recognizes that Hall Boulevard is a state arterial roadway and a major travel corridor through the regional center, connecting to Beaverton regional center to the north and Tualatin town center to the south. Upgrading this facility is expected to reduce cut-through traffic in surrounding residential neighborhoods and will provide overall improvements in traffic flow throughout the area. The regional center study's recommendations include a project to widen Hall Boulevard to three lanes with sidewalks and bike lanes for the short-term, and endorses acquiring right-of-way for a five-lane roadway for future expansion to five lanes when traffic warrants such an expansion. The RTP identifies transportation projects and programs that address current and future needs that result from expected population and job growth throughout the region. RTP projects 6013 and 6030 reflect the longer-term need for a five-lane Hall Boulevard. The city of Tigard's draft TSP will be revised to incorporate all recommendations included in the Washington Square regional center plan, including the addition of Projects 6013 and 6030.

Comment 137: Provide drainage for our property as part of construction of RTP project 6030, widening of Hall Boulevard to five lanes from Locust Street to Durham Road. (Mr. And Mrs. Davis, 5/3/00)

JPACT Recommendation on Comment 137: No change is recommended. This project will undergo project design and construction by the city of Tigard, not Metro. This comment will be forwarded to the city of Tigard for consideration.

Comment 138: Remove Project #3025 (Tualatin Valley Highway widening) from the RTP and formally recognize that Tualatin Valley Highway has no prospects of significant expansion of capacity. (Walter Hellman, 6/10/00)

JPACT Recommendation on Comment 138: No change recommended. Section 6.7.6 in Chapter 6 of the draft plan recommends a study of Tualatin Valley Highway to address the local and regional transportation needs within the corridor from Beaverton to Hillsboro regional centers. Specifically, the section recommends evaluating a variety of strategies to address travel demand in the corridor, including capacity and transit improvements to Tualatin Valley Highway and other parallel routes such as Farmington Road, Alexander Road, Baseline Street and Walker Road. Other strategies to be examined include intersection improvements and access management throughout the corridor.

The Regional Transportation Plan identifies the need to do something to improve traffic flow in the corridor, as Tualatin Valley Highway serves as the principal connection between Beaverton and Hillsboro. The corridor study will determine exactly what kind of improvements will work best to balance the need to accommodate expected growth in travel in the corridor with the community's needs and concerns. The corridor study will include opportunities for public input and will be conducted jointly with staff from Metro, ODOT, Washington County, Beaverton and Hillsboro.

Comment 139: Schedule $5 million for major investment study and environmental design work in the 2000-05 time period for project #6005 (Tualatin—Sherwood Connector). (City of Tualatin, 6/8/00, and Washington county 6/12/00)

JPACT Recommendation on Comment 139: Amend as requested.

Comment 140: Add Project # 6074 (65th/Tualatin River Crossing and connections) to the strategic system in the 2011-20 time period (City of Tualatin, 6/8/00)

JPACT Recommendation on Comment 140: Amend as requested.

Comment 141: Add description of location for Project # 3009 (Murray Boulevard to 185th Avenue) (Washington County, 6/12/00)

JPACT Recommendation on Comment 141: Amend as requested.

Comment 142: Add cost of $8 million to description of Project # 3069 (Scholls Ferry Road Improvements) (Washington County, 6/12/00)

JPACT Recommendation on Comment 142: Amend as requested.

Comment 143: Add Project # 3175 (widen Barnes Road to five lanes from 119th Avenue to Highway 217) to the Strategic and Financially Constrained systems and remove projects #3177 (Cedar Hills/Barnes Road intersection improvements) and #3190 (143rd Avenue improvements) from the financially constrained system to balance to cost of the financially constrained system with the expected revenue. (Washington County, 6/12/00 and 6/22/00)

JPACT Recommendation on Comment 143: Amend as requested.

Comment 144: Revise description of Project # 3182 to be from 143rd Avenue to Dale Road with a project cost of $6 million. (Washington County, 6/12/00)

JPACT Recommendation on Comment 144: Amend as requested.

Comment 145: Add Project # 6000 (Peak-hour only commuter rail service from Wilsonville to Beaverton) to the Preferred system. (Washington County, 6/12/00)

JPACT Recommendation on Comment 145: No change recommended. Project #6001 represents the preferred level of commuter rail service – peak-hour and mid-day service.

Comment 146: Add a new project to widen 170th Avenue to five lanes with sidewalks and bike lanes from Blanton Street to Farmington Road. Add this project to the preferred system at a cost of $8 million. (Murray Boulevard to 185th Avenue) (Washington County, 6/12/00)

JPACT Recommendation on Comment 146: Amend as requested.

Comment 147: Marine Drive is serving inappropriate levels of traffic and freight movement, given its physical constraints (D. J. Chalmers, 5/29/00)

JPACT Recommendation on Comment 147: No change recommended. Though it is both impractical and inappropriate to add vehicle capacity to Marine Drive, a number of parallel improvements are proposed on Northeast Portland Highway and Northeast Sandy Boulevard to provide more direct freight routes through the Columbia Corridor.

Comment 148: The I-84 to Hogan Road connector (project no. 1041/2042) is too costly, and would affect large tracts of public land that could otherwise be developed (D. J. Chalmers, 5/29/00)

JPACT Recommendation on Comment 148: No change recommended. The Hogan corridor is a principal arterial route in the RTP, forming a critical link between I-84 and Highway 26 in the Gresham area. The project will build on recently completed interchange improvements in Wood Village, and will slow through traffic growth on parallel north/south arterials in the area.

Comment 149: Commuter rail should be a higher priority in the RTP (D. J. Chalmers, 5/29/00)

JPACT Recommendation on Comment 149: No change recommended. Commuter rail will be considered in several corridor studies recommended in the RTP, most notably the I-5 South

corridor, where commuter rail is one of the strategies that will be examined for serving Willamette Valley travel demand. The RTP also includes a commuter rail line between Wilsonville and Beaverton.

Comment 150: A new Willamette River bridge is needed south of the Sellwood Bridge in order to improve east-west access between the Sellwood and I-205 bridges (Daniel Peterson, 6/1/00)

JPACT Recommendation on Comment 150: No change recommended. The recently completed South Willamette Crossing Study examined this issue, and recommended a number of changes to existing street and bridges in this corridor, but not an additional river crossing. The recommendations of the South Willamette Crossing Study have been incorporated into the draft RTP.

Comment 151: Delete project no. 2076 (Marine Drive Extension in Troutdale) from the RTP, based on City Council study of transportation impacts (City of Troutdale, 5/24/00)

JPACT Recommendation on Comment 151: Amend as requested.

Comment 152: Improvements in the 99E/Highway 224 corridor should address both immediate capacity issues in the near term and accommodate the potential for light rail in the future. (Clackamas Co. Economic Development Commission, 5/19/00)

JPACT Recommendation on Comment 152: No change recommended. The RTP calls for more detailed corridor planning to identify specific highway and transit improvements in this corridor. The ongoing South Corridor study is in the process of evaluating transit options in this corridor, and is the most appropriate forum for this comment to be addressed.

Comment 153: The Clackamas County Economic Development Commission strongly supports transportation improvements in the South Corridor. A capacity improvement project that would facilitate the uncongested movement of buses and carpools in this corridor is preferred. While light rail remains the long-term solution in the McLoughlin/Highway 224 corridor, any new improvements built in this corridor should address immediate capacity issues in the near term and accommodate the potential for light rail in the future (Clackamas County Economic Development Commission, 5/19/00)

JPACT Recommendation on Comment 153: Comment and support is noted. The South Corridor Project will address these issues.

Comment 154: Proceed with South Corridor Transportation Alternative Study. (Clackamas County Commissioners, 6/29/00)

JPACT Recommendation on Comment 154: No change recommended. See JPACT recommendation in Comment 152.

Comment 155: Supports light rail transit between Clackamas Regional Center and Portland but would like direct bus service in the interim before light rail is constructed. (Oakley Garnett, 6/2/00)

JPACT Recommendation on Comment 155: Will forward this comment to the South Corridor Study and the Tri-Met service planning department for their consideration of appropriate interim service improvements in this transit corridor.

Comment 156: Oregon City requests that two multi-use path projects be added to the RTP project list. These projects represent links between I-205, the North/South transit corridor, and downtown Oregon City. These multi-use paths are included in the Metro Greenspaces Master Plan. The projects are:

- The Clackamas River multi-use path between I-205 and Clackamette Park; and
- The Willamette River multi-use path between the Clackamas River multi-use path at Clackamette Park and Smurfit at McLoughlin Boulevard and 5th Street.

(Oregon City, 5/1/00)

JPACT Recommendation on Comment 156: Amend as requested. Add the projects to the Regional Bicycle System map (Figure 1.18) as proposed regional off-street corridor, and to the Regional Pedestrian System map as a proposed multi-use facility with pedestrian transportation function. Add the projects and descriptions to the Priority System in Chapter 5 and in Appendix 1.1.

Comment 157: Remove the extension of Marine Drive from the I-84 frontage road to Halsey Street in Troutdale. (Troutdale City Council, 5/24/00)

JPACT Recommendation on Comment 157: Amend as requested.

Comment 158: Reconsider proposed design of Project #1184 to improve safety of the intersection. (Gordon Trapp, 5/9/00)

JPACT Recommendation on Comment 158: No change recommended. This comment is a local project design issue.

Miscellaneous Comments

Comment 159: The urban growth boundary in Clackamas County must be expanded to improve the job/house balance in this part of the region, and the ability of transportation facilities to adequately serve the area (Clackamas Co. Economic Development Commission, 6/15/00)

JPACT Recommendation on Comment 159: No change recommended. The job/housing balance issue will be addressed as part of the TCSP planning process that will establish a land use and transportation concept for emerging urban areas in the Pleasant Valley/Damascus portion of Clackamas County.

Comment 160: There are several places in the Legal Refinements document that still refer to the Strategic (e.g., Page 15 #2 and #3 proposed revisions), and the RTP Project List. The legal refinement document and all RTP appendices and project lists will need to be revised accordingly. (City of Beaverton, 5/10/00)

JPACT Recommendation on Comment 160: Amend as requested.

Comment 161: Supports the need for early completion of Phase One of the Sunrise Corridor. The South Corridor Project must remain as the important project in the RTP linking Clackamas County and the Central City. The Metro Council should start the process for a study of the needs and options for transportation along the I-205 Corridor. (Rock Creek CPO, 6/27/00 and Clackamas County and Dick Jones, 6/29/00)

JPACT Recommendation on Comment 161: No change recommended. Sunrise Corridor and South Corridor Transportation Alternatives Project are in the Financially Constrained system. A number of projects related to the I-205 and Highway 99E/224 corridors in Clackamas County are included in the Strategic system. In addition, Section 6.7.6 in Chapter 6 of the RTP identifies a study to further define the needs and options for transportation in the I-205 corridor.

Comment 162: Revise Project 3143 (widening Walker Road to five lanes with sidewalks and bike lanes) to reflect a three-lane cross section with sidewalks and bike lanes. (Matt Palmer, 6/29/00)

JPACT Recommendation on Comment 162: No change recommended. This is a local project design issue that will be considered as part of the Washington County Transportation System Plan update. This comment will be forwarded to Washington County staff for consideration as part of their TSP update.

Comment 163: Pedestrian islands along McLoughlin Boulevard at Hull, Boardman, Vineyard and Risley roads need additional illuminated crossing signs that are push-button activated to improve pedestrian safety. (John Hepler, 6/29/00)

JPACT Recommendation on Comment 163: No change recommended. This is a local project design issue. This comment will be forwarded to ODOT for consideration.

Comment 164: Project 1263 (Banfield Pedestrian improvements) should include a stairway on the west side of the 82nd Avenue viaduct. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 164: This project recognizes the need for pedestrian improvements at or near light rail stations in the Banfield corridor. Specific improvements will be determined during project development, which will include outreach to affected citizens. This comment will be forwarded to Tri-Met and the City of Portland for their consideration when project development begins.

Comment 165: The RTP should designate in the text description of project 1051 - Burnside Street Traffic Management Improvments, the inclusion of a Burnside - Couch Street couplet between NW Eighth and 19th Avenues due to limited right-of-way on Burnside. The project should be extended from SE 12th to SE 28th Avenue. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 165: There are no specific designs for this project at this time, only a recognized need to provide boulevard type improvements in this area. This comment will be forwarded to the City of Portland for consideration during the project design phase. It is not recommended to extend the project to SE 28th Avenue at this time due to the increase in costs.

Comment 166: Project 1119; Sandy/Burnside intersection improvements should remove Sandy Boulevard between Washington and Ankeny Streets and improve SE Seventh between Washington and Burnside to be a two-way local collector with signals at Seventh and Burnside. (Douglas Kelso, 6/29/00)

JPACT Recommendation on Comment 166: There are no specific designs for this project at this time, only a recognized need to provide boulevard type improvements in this area. This comment will be forwarded to the City of Portland for consideration during the project design phase.

METRO

Attachment 2

RTP Preface and Introduction Revisions

Preface

The 2040 Growth Concept was adopted in 1996, and serves as the blueprint for future growth in the region. The 2040 plan places a new emphasis on focusing new development in existing centers, and protecting farm land from urban expansion. This 2000 Regional Transportation Plan (RTP) marks the end of a nearly five-year planning process to begin implementation of the 2040 Growth Concept. As such, the ~~1999~~ 2000 RTP is the culmination of a nearly 20-year evolution from a mostly road-oriented plan to a more multi-modal one, ultimately mixing land-use and transportation objectives in a truly integrated fashion. The transportation improvements recommended in this plan both respond to expected growth, and leverage key elements of the 2040 Growth Concept.

The ~~1999~~ 2000 RTP is the result of extensive input from the residents of this region and our state, regional and local government partners. The plan recognizes the diversity of transportation needs throughout the Portland metropolitan region, and attempts to balance often competing transportation needs. This RTP sets the policies, systems and actions to adequately serve walking, bicycling, driving, use of transit and national and international freight movement in this region.

While advocating a transportation system that adequately serves all modes of travel, the plan recognizes that the automobile will likely continue to be the primary mode of personal travel over the life of the plan. However, the RTP also recognizes the need for transportation alternatives for traveling to everyday destinations, and to provide mobility for those unable to travel by automobile. ~~that many possibilities exist to limit our need to drive to certain destinations, such as a neighborhood coffee shop or a restaurant near your place of work. The plan, therefore, also stresses the need to plan a transportation system that expands our choices for travel within the region~~. Even ~~on~~ the occasional ~~basis, the~~ use of transit, walking, bicycling or sharing a ride can help the region maintain its clean air, conserve energy and accommodate more people within a compact urban form ~~growth boundary~~.

Finally, the Regional Transportation Plan recognizes that the transportation system plays a critical role in the continued economic health of the region. Many sectors of the regional economy heavily depend on the safe and efficient movement of goods and services by truck, rail, air and water. Improvements defined in this plan try to balance all of these diverse, and often ~~times~~ competing, needs. The Regional Transportation Plan identifies ~~modal systems and includes a number of~~ strategic investments that aim to:

- limit the amount of congestion motorists experience
- maintain access for national and international rail, air and ship freight to reach its destination with limited travel delay
- balance the need to maintain motor vehicle and freight mobility with the potential impacts of these improvements on our communities and other modes of travel
- expand public transit service and improve pedestrian access to transit
- build new sidewalks and bicycle facilities
- develop system and demand management strategies to improve how the system operates

These improvements are prioritized within the plan, with those projects and programs included in the financially constrained system eligible for funding through regular federal funding allocations. Other

projects and programs contained in the larger strategic system can be incorporated into the financially constrained system over time, and also become eligible for federal funding.

Read on to learn more about Metro's commitment to link transportation, land-use and environmental planning for the region in order to protect the community livability we all value. A brief, illustrated overview of the plan is also available from Metro, and can also be viewed online at Metro's website: www.metro-region.org.

The 2000 Regional Transportation Plan

The 2000 Regional Transportation Plan is a 20-year blueprint for the Portland metropolitan region's transportation system. The plan deals with how best to move people and goods in and through the region. There are many transportation needs in this region, including:

- limit the amount of congestion people experience, and provide alternatives to avoid congestion
- build new sidewalks and bicycle facilities
- expand transit service and improve pedestrian access to transit
- maintain access for national and international rail, truck, air and marine freight to reach its destination with limited delay
- regional street designs that safely accommodate all forms of travel

One of ~~Metro's~~ the region's goals is to provide a balanced range of transportation choices for the movement of people and goods in this region. The plan sets transportation policies for all forms of travel: motor vehicle, transit, pedestrian, bicycle and freight. The plan includes specific objectives, strategies and projects to guide local and regional implementation of each policy.

Why does the RTP matter?

As this region grows, additional demands are placed on the existing transportation system. The RTP matters because it defines regional policies that all city, county, Tri-Met, Oregon Department of Transportation and Port of Portland transportation plans must follow. ~~It~~ Through the financially constrained and strategic systems described in Chapter 5, the plan identifies transportation projects and programs throughout the region for the next 20 years to implement the region's 2040 Growth Concept and addresses the impacts of future growth on our transportation system.

The plan must also meet federal and state requirements. A transportation project is eligible for ~~state and~~ federal transportation funds distributed through Metro if it is included in the financially constrained system ~~adopted RTP~~ and is consistent with federal air quality standards. The projects and programs in the strategic system address state transportation planning requirements. The role of these systems in meeting state and federal requirements, and funding specific projects and programs is described in more detail in the "how to use this plan" section that follows.

Choices made today about how to serve future growth in this region will have lasting impacts on our quality of life. The 2000 Regional Transportation Plan is just one part of Metro's overall strategy to protect the community livability we all value.

Metro's Role in Transportation Planning

Metro is the regional government and federally designated metropolitan planning organization (MPO) for the Portland metropolitan area. Metro is governed by an executive officer elected region-wide and a seven-member council elected by districts. Metro's jurisdictional boundary encompasses the urban portions of Multnomah, Washington and Clackamas counties. Today, Metro serves 1.3 million people

who live in these three counties and the 24 cities in the Portland metropolitan area. Metro coordinates with the Southwest Washington Regional Transportation Council, the federally designated MPO for the Clark County portion of the metropolitan region.

How to Use this Plan

The Regional Transportation Plan, first adopted by the Metro Council in 1983, is updated every three to five years to reflect ~~changes~~ changing conditions in the Portland metropolitan region. ~~The process to update the plan was started in 1994.~~ The Metro Council adopted an interim Regional Transportation Plan in 1995 to address new federal planning requirements. This document is the result of ~~that~~ the interim 1995 plan being further updated to implement policies identified in the adopted Regional Framework Plan (1997) and the 2040 Growth Concept, to address state planning requirements set forth in the Transportation Planning Rule, and to address future transportation needs through the year 2020.

The 2000 Regional Transportation Plan ~~This document~~ marks the end of a ~~nearly~~ five-year process that has included extensive input from the residents of this region and from our state, regional and local government partners. The plan is organized into six chapters, and includes an introduction, glossary of terms and an appendi~~x~~ces.

- The **Introduction** describes the different systems set forth in the plan, and how they relate to ~~provides the~~ federal, state and regional planning requirements, and the selection of transportation improvements in the four-year Metropolitan Transportation Improvement Program (MTIP) ~~context for the creation of this plan and outlines the overall intent of the plan.~~

- **Chapter 1** presents the overall policy framework for the specific transportation policies, objectives and actions contained in the Regional Transportation Plan. This chapter sets a direction for future planning and decision-making by the Metro Council and the implementing agencies, counties and cities.

- **Chapter 2** describes the expected land uses and travel demand for the year 2020 based on implementation of the 2040 Growth Concept and predicted population and employment growth.

- **Chapter 3** analyzes the impact of future growth on the "preferred system" that includes all future projects and programs necessary to meet the goals and objectives established in Chapter 1. ~~This chapter~~ Appendix 1.1 lists all of these improvements grouped by location as defined in the 2040 Growth Concept. The chapter also describes federal congestion management requirements and provides an analysis of how this plan meets these requirements.

- **Chapter 4** discusses transportation revenue sources and estimated costs for implementation of the preferred system. ~~This chapter also includes a listing of potential new revenue sources that could help address revenue shortfalls.~~

- **Chapter 5** analyzes the impact of future growth on the "financially constrained" and strategic systems.~~, which~~ The financially constrained system includes the most critical projects and programs needed over the 20-year planning period. The strategic system contains additional projects and programs needed to keep pace with future growth, while maintaining an adequate level of performance. This chapter also ~~lists all of~~ groups these proposed projects and programs by geographic subarea. ~~improvements grouped~~The proposed projects are further grouped into three phases of implementation – from 2000 to 2005, 2006 to 2010 and 2011 to 2020. ~~The proposed projects~~

~~are further grouped by location, as defined in the 2040 Growth Concept~~. This chapter also proposes potential funding strategies to implement the strategic system.

- **Chapter 6** describes the processes through which this plan will be implemented; defines statewide goal and local comprehensive plan compliance procedures; establishes a process to update, refine and amend the RTP; and details outstanding issues that remain unresolved at the time this plan is adopted.

- The **Glossary** of terms located at the end of the document includes definitions of many transportation-related planning and engineering terms used throughout the document.

- The **Appendices** are located in a separate document. It contains ~~numerous~~ the technical documents used to develop this plan and ~~actual~~ legal findings of compliance with federal, state and regional planning requirements.

The 2000 Regional Transportation Plan was developed to include separate layers of planned projects and programs that respond to differing federal, state and regional planning mandates. These layers are:

- the **financially constrained system**, which responds to federal planning requirements, and is based on a financial forecast of limited funding over the 20-year plan period

- the **strategic system**, which responds to state planning requirements, and assumes that significant new revenue must be identified in order to provide an adequate transportation system over the 20-year plan period

- the **preferred system**., which responds to regional planning policies adopted as part of the 2040 Growth Concept and Regional Framework Plan, including specific system performance measures.

Each of these distinct layers of transportation projects and programs are described in more detail below.

Federal Context and the Financially Constrained System

As a federally designated MPO, Metro must coordinate transportation planning for the Portland metropolitan region, including distribution of federal transportation funds to this region through the Regional Transportation Plan and the Metropolitan Transportation Improvement Program. Adopted in the 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) was amended in 1998 as the Transportation Equity Act for the 21st Century (TEA-21). These Congressional acts expanded public participation in the transportation planning process and required increased cooperation among the jurisdictions that own and operate the region's transportation system. These partners include the region's 24 cities, three counties, Oregon Department of Transportation, Oregon Department of Environmental Quality, Port of Portland, Tri-Met, Washington Regional Transportation Council, Washington Department of Transportation, Southwest Washington Air Pollution Control Authority and other Clark County governments.

The centerpiece of the federal planning program is the development of a financially constrained transportation system. This system of projects and programs is limited to current funding sources, and those new sources that can be reasonably expected to be available during the 20-year plan period. In Oregon, state transportation funding has not kept pace with inflation or the need for new infrastructure

during the past 15 years. This trend could translate into a serious decline in performance of the region's transportation system during the next 20 years, as limited funds are increasingly required to maintain and operate the system, leaving inadequate funds to keep pace with growth. The financially constrained system described in Chapter 5 describes such a scenario. While this system includes the region's most critical projects and programs, the overall system is inadequate to meet adopted performance measures, and would limit the region's ability to fully implement the 2040 Growth Concept.

As the federally recognized system, the financially constrained system is also the source of transportation projects that may be funded through the Metropolitan Transportation Improvement Program. The MTIP allocates federal funds in the region, and is updated every two years, and includes a rolling, four-year program of transportation improvements. The 2000 Regional Transportation Plan not only provides an updated set of financially constrained projects and programs for future MTIP allocations, but also establishes more formal procedures and objectives for implementing the long-range regional transportation policies through incremental funding decisions. These new MTIP provisions are set forth in Chapter 6 of the 2000 Regional Transportation Plan.

Other federal transportation planning requirements also apply to Metro. The federal Clean Air Act Amendments of 1990 establish air quality standards for key air pollutants, including carbon monoxide, ozone and particulate matter. Areas that do not meet the standards are designated in varying degrees of non-attainment from "marginal" to "extreme." If a metropolitan area is designated non-attainment, the state in which the metropolitan area is located must submit an implementation plan that shows how the metropolitan area will meet the federal standards and maintain compliance over a 10-year period. Areas that do not meet the State Implementation Plan requirements could face sanctions, including potential loss of federal highway funds and limits on industrial expansion.

In 1991, the Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) received a marginal non-attainment designation for ozone and moderate non-attainment designation for carbon monoxide. However, by the end of 1991, the area began to meet federal ozone and carbon monoxide standards on a consistent basis. As a result, this region began to work on 10-year maintenance plans and attainment designation requests for both pollutants. These plans were finalized in 1996 and submitted to the U.S. Environmental Protection Agency (EPA) as revisions to the Oregon State Implementation Plan. EPA approved the maintenance plans and also designated the Portland-Vancouver Interstate AQMA to attainment status in 1997. As required in the federal planning regulations, the financially constrained system in the 2000 Regional Transportation Plan has been demonstrated to conform with the Clean Air Act.

Another federal requirement that impacts regional transportation planning is the Endangered Species Act (ESA), a federal regulation that mandates protection and recovery for species in immediate and near-immediate danger of extinction. The 1998 and 1999 listing of Pacific Northwest steelhead, chinook and chum as threatened species under the ESA have placed an additional emphasis on protecting fish and wildlife habitat. The National Marine Fisheries Service (NMFS) is the federal agency charged with the listing and recovery of anadromous fish. An anadromous fish reproduces in fresh water but spends part of the growth cycle in the ocean. Once a species is listed, no person or municipality may "take" individual fish or so disrupt habitat as to "take" an individual fish without a permit. A "take" is any action that harms, threatens, endangers or harasses a species or modifies or degrades that species' habitat. There are often conflicts between good transportation design, planned urbanization and the need to protect streams and wildlife corridors from urban impacts~~, particularly in urban reserves~~. Metro and its local, regional, state, and federal partners ~~is in the early stages of~~ are defining actions to protect these endangered

species. Chapter 6 of the 2000 Regional Transportation Plan identifies outstanding issues that must be addressed prior to the next update to the plan, including the upcoming Green Streets project.

Additional federal transportation requirements include the 1990 Americans with Disabilities Act, which requires that transportation plans address equal access and opportunity for disabled people. The updated plan includes new policy provisions that focus on the transportation needs of the elderly, disables and other special needs populations. Chapter 6 of the plan also identifies additional work that must be completed to fully address special needs populations.

State Context and the Strategic System

In 1991, the Land Conservation and Development Commission adopted the Oregon Transportation Planning Rule (TPR). The TPR ~~is intended to~~ implements State Land Use Planning Goal 12, Transportation, which was adopted by the Oregon Legislature in 1974. The TPR requires most cities and counties and the state's four MPOs to adopt transportation system plans that consider all modes of transportation, energy conservation and avoid principal reliance on any one mode to meet transportation needs. ~~Local plans~~ By state law, local plans in MPO areas must be consistent with the regional transportation system plan (TSP). In the Portland region, the 2000 Regional Transportation Plan serves as the regional TSP. Likewise, regional plans must be consistent with the Oregon Transportation Plan, adopted in 1992 by the Oregon Transportation Commission.

The state TPR requires that transportation system plans provide an adequate system of improvements that meet adopted performance measures. The strategic system described in Chapter 5 of this plan serves as the statement of adequacy for the purpose of compliance with the state TPR. The strategic system includes a broad set of needed transportation projects and programs that generally keep pace with growth in the region, while implementing key elements of the 2040 Growth Concept.

However, projects in the strategic system cannot be funded through the MTIP process unless they are also included in the smaller financially constrained system. Instead, these projects and programs are intended to guide local transportation plans and land use actions, and serve as the source of future projects in the financially constrained system, either through amendments to the Regional Transportation Plan, or through the regular updates that occur every three to five years.

~~In addition, the TPR describes specific elements and analysis that local and regional transportation system plans must address, including consideration of possible land use solutions to transportation problems and identification of multi-modal, system management and demand management strategies to address identified transportation needs.~~

Regional Context and the Preferred System

In 1979, the voters in this region created Metro, the only directly elected regional government in the ~~U.S~~ nation. In 1991, Metro adopted Regional Urban Growth Goals and Objectives (RUGGOs) in response to state planning requirements. Revised in 1995 and acknowledged by the Land Conservation Development Commission in 1996, the RUGGOs establish a process for coordinating planning in the metropolitan region in an effort to preserve regional livability. RUGGOs, including the 2040 Growth Concept, also

provide the policy framework for guiding Metro's regional planning program, including development of functional plans and management of the region's urban growth boundary.

In 1992, the voters of the Portland metropolitan area approved a home-rule charter for Metro. The charter identifies specific responsibilities of Metro and gives the agency broad powers to regulate land-use planning throughout the three-county region and to address what the charter identifies as "issues of regional concern." Among these responsibilities, the charter directs Metro to provide transportation and land-use planning services, oversee regional garbage disposal, and recycling and waste reduction programs, develop and operate a regional parks system and operate regional spectator facilities such as the Oregon Zoo, the Oregon Convention Center and the Portland Metropolitan Exposition (Expo) Center.

The charter also directs Metro to develop a Regional Framework Plan that integrates land-use, transportation and other regional planning mandates. In 1995, the Metro Council adopted the 2040 Growth Concept as part of revisions to the RUGGOs adopted in 1991. The 2040 Growth Concept served as the first step in developing the charter-required regional framework plan.

Adopted in December 1997, the Regional Framework Plan is a comprehensive set of policies that integrate land-use, transportation, water, parks and open spaces and other important regional issues. The plan is intended to guide Metro's planning efforts to manage future growth in this region and implement the 2040 Growth Concept. ~~Chapter 2~~ The transportation component of the framework plan outlines overall transportation policies for the region for the next 40 years, and is incorporated as Chapter 1 of the 2000 Regional Transportation Plan.

~~**The 2040 Growth Concept**~~
~~**Protecting livable communities**~~

Since adoption of RUGGOs in 1991 and a home-rule charter in 1992, Metro has been involved in a long-range planning process that has included extensive involvement of residents of this region and our state, regional and local government partners. Metro started this planning effort because the region is growing rapidly. Today there are about 100,000 more people living in the three-county region than there were five years ago. By 2017, 470,000 more people are expected to live here.

The purpose of this effort has been to develop a plan for protecting livable communities based on the values expressed by people in this region – such as clean air and water, access to nature, safe and stable neighborhoods, the ability to get around the region and a strong regional economy.

~~**Evaluating Options**~~

The 2040 planning process also ~~has~~ included an evaluation of how different land-use and transportation strategies could help ~~us~~ preserve livability in this region. The possible consequences of such strategies were analyzed, including their impact on operation of the region's transportation system. The regional strategy that evolved from this process is called the 2040 Growth Concept, which integrates land-use and transportation planning and curbs ~~sprawl~~ rural and resource land consumption. From a transportation standpoint, the 2040 Growth Concept provided the best overall performance at the lowest cost of all the alternatives concepts that were evaluated.

Adopted in 1995 as part of the RUGGOs, the 2040 Growth Concept directs most new development to centers and along existing major transportation corridors. It relies on a balanced transportation system that adequately serves walking, bicycling, driving, transit and national and international freight

movement. Building neighborhoods and communities to focus new jobs, housing and services in these centers and corridors provides many benefits and has important implications for the region's transportation system.

The 2040 Growth Concept can be summarized by the following components:

- centers and corridors with an emphasis on higher development densities, mixed land uses, ease of traveling by transit, bicycling and walking, parking limit and streets designed for people, not just cars

- neighborhoods that will remain largely residential in nature, and change very little from today

- industrial areas and marine, rail and air cargo terminals that serve as the hub for regional commerce

- environmentally sensitive areas that need special protections

The preferred system of transportation projects and programs described in Chapter 3 of the 2000 Regional Transportation Plan represents the full set of improvements needed to fully implement the 2040 Growth Concept during the 20-year planning period, and keep pace with forecasted growth in the region. This system contains many "placeholder" projects, where a specific transportation need is identified, but more work is needed to develop refined projects or programs that serve the identified need. The preferred system meets all of the performance measures included in Chapter 1 of the plan, and should be used to guide long-range land use and right-of-way planning.

The preferred system also incorporates all of the projects and programs included in the financially constrained and strategic systems, described above. To be eligible for federal funds, a project or program in the preferred system must be amended into the financially constrained system.

~~**Growing smart**~~

Using urban land wisely allows for more cost-effective and efficient provision of road, sewer, water and stormwater systems. Our technical analysis showed that without the 2040 Growth Concept, the region's urban growth boundary would need to be expanded by about 50 percent to accommodate predicted housing and employment growth. This would result in the need for costly extensions of existing transportation and utility systems.

~~**Reducing the need to drive**~~

The 2040 Growth Concept also supports the region's goal of providing jobs and shopping closer to where people live. A diverse and well-designed community provides access to a variety of jobs, shopping and other services from home and reduces the need to drive longer distances.

~~**Expanding transportation choices**~~

More people will walk, take a bus or ride a bike if our transportation system provides safe and convenient opportunities to do so. Focusing new jobs and housing close to restaurants, stores and services makes walking, bicycling and riding public transportation convenient. These travel options allow people who cannot drive, or who choose not to drive, to get where they need to go. Finally, more

households may choose not to own a car, or decline a second car, if there are a number of travel options. Money could be saved that would otherwise be spent on car payments, fuel, insurance and maintenance.

~~**Avoiding sprawl**~~

~~For all these reasons and to reduce sprawl,~~ tThe 2040 Growth Concept encourages effective use of our land. The concept uses transportation investments to encourage economic activity in preferred areas where the region decides future development should occur.

~~**Keeping the economy strong**~~

The region's transportation system plays a critical role in the continued economic health and livability of this region. When planning for how and where development should occur in this region, consideration must be given to existing and future transportation needs. Experience has shown that economic vitality occurs in those areas with the best access. Therefore, it is important that the Regional Transportation Plan strategically invest transportation funds to improve access to and through the areas that need it (e.g., central city, regional centers, industrial areas and facilities where goods move from one transportation mode to another). This means targeting investments in a manner that serves areas where the region has decided future development should occur as part of implementation of the 2040 Growth Concept.

METRO

Attachment 3

Financially Constrained System Performance and Proposed Financial Analysis Revisions to Chapter 5

CHAPTER 5

Growth and the Strategic System

5.0 Introduction

The financial analysis in Chapter 4 shows a dramatic shortfall in ~~our~~ the region's ability to fund the 2020 Preferred system identified in Chapter 3, with needed improvements costing ~~four~~ more than three times ~~our~~ the current revenue projections. The shortfall has profound implications for the region's ability to keep pace with growth, and begin implementing the 2040 Growth Concept. The shortfall ~~is not limited to gas tax revenue, and~~ could affect all aspects of the ~~Preferred~~ regional transportation system, ~~included~~ in particular limiting the region's ability to expand~~ed~~ existing roadways, transit service ~~and~~ as well as adequately serve ~~improvements to~~ the region's pedestrian, bicycle and freight needs ~~systems~~.

For the purpose of evaluating the impact of funding limitations on our ability to provide needed improvements, this chapter includes a~~n Existing Resources~~ Financially Constrained System analysis. The Financially Constrained System also serves as the basis for complying with federal planning and air quality regulations. In this scenario, the scale of the system is limited to approximately $2.9 billion~~$970 million~~, which includes existing and proposed funding sources that can reasonably be expected to be available for transportation uses during the 20-year plan period.[1] ~~the current 20-year capital projection~~. This includes $900 million of federal transit money that may only be used to expand the light rail system beyond the Interstate Avenue light rail project.

With expected revenue, the financially constrained system is not adequate to meet the region's 20-year transportation needs. The analysis of this ~~Existing Resource~~ Financially Constrained network shows an unacceptable level of congestion, with accompanying impacts on the region's ability to ~~focus~~ adequately serve expected growth in centers and maintain adequate access to intermodal facilities and industrial areas. ~~This chapter is an attempt to balance these current funding limitations against expected transportation needs.~~ As a result, the 2020 Strategic System was developed. The ~~purpose of the~~ 2020 Strategic System includes ~~is to identify~~ the most critical improvements needed to implement the 2040 Growth Concept. It is not intended to fully meet the region's 20-year needs identified in Chapter 3 as the "preferred" system, but is adequate given current funding limitations. However, the "strategic" system of projects described in this chapter would still require a major increase in transportation funding. The resulting strategic system would serve most of our transportation needs during the next 20 years, but many needs would ~~be~~ remain unmet, particularly in developing areas near the urban fringe and on minor routes, underscoring the importance of exploring new and innovative funding strategies for addressing the region's transportation needs.

Therefore, while the 2020 Preferred System is a full statement of need, the 2020 Strategic System is a statement of the highest priority need, given current transportation funding constraints, which includes a modest increase of existing resources. Section 5.4 of this chapter describes ~~three~~ four possible revenue ~~strategies~~ concepts to address the funding needs of the 2020 Strategic

[1] See Appendix 4.0 for more detail on the revenue assumptions used to develop the financially constrained system.

System. The accompanying subarea maps show the proposed strategic system projects and programs in detail. A ~~comparison~~ summary of the projects included in the Preferred, ~~and~~ Strategic and Financially Constrained systems ~~projects~~ is shown in Appendix 1.1. ~~The Strategic System analysis in this chapter evaluates the impact of withdrawing "preferred" improvements from the planned 2020 network on access to centers, industrial areas and intermodal facilities.~~

This chapter is organized as follows:

Effects of Growth on the ~~Existing Resources~~ Financially Constrained System: This section evaluates the performance of the Financially Constrained System ~~regional transportation~~ system and the corresponding impact on implementation of the 2040 Growth Concept on a regional and sub-region basis. ~~assuming no new revenue sources during the 20-year plan period~~. For RTP Analysis purposes, the ~~existing resource~~ financially constrained system was defined to provide a benchmark transportation scenario to compare with the 2020 Preferred and Strategic systems and demonstrate that current transportation funding is not adequate to serve this region's 20-year transportation needs. The Financially Constrained System also serves as the basis for complying with federal planning and air quality regulations.

Proposed Strategic System Improvements for 2020: This section provides an overview of the process and principles used to identify the 2020 Strategic System and generally describes the types of projects and programs included in that system.

2020 Strategic System Analysis: This section evaluates the performance of the 2020 Strategic System on a regional and sub-region basis, emphasizing major corridors that performed differently when compared to performance of the 2020 Preferred System.

Possible Revenue Strategies for 2020: This section describes three possible revenue strategies to address the funding needs of the 2020 Strategic System. One strategy focuses on increasing traditional sources of revenue. A second strategy focuses on growth-related sources of revenue, and emphasizes increasing development-based revenues to pay for transportation needs. The third strategy reflects a combination of the first two strategies and other sources of revenue.

5.1 Effects of Growth on an ~~Existing Resource~~ Financially Constrained System

5.1.1 ~~Existing Resource~~ Financially Constrained System Defined

The ~~existing resource~~ financially constrained system is a 20-year transportation scenario that assumes existing and proposed funding sources that can reasonably be expected to be available for transportation uses during the 20-year plan period[2] ~~no new sources or major increases in revenue.~~ It is required by federal transportation planning regulations and constitutes the federally recognized plan. The purpose of defining a financially constrained ~~an existing resource~~ system is to provide a benchmark transportation scenario that will be compared with the 2020 Strategic and Preferred systems as part of the RTP analysis. As noted, this system also demonstrates that current transportation funding is not adequate to serve this region's 20-year

[2] See Appendix 4.2 for more detail on the revenue assumptions used to develop the Financially Constrained System.

transportation needs, and is used to determine conformity with federal planning and air quality regulations.[3]

~~This system represents just one example of how limited revenues might be spent in this region for the purposes of analyzing the impact of no new revenue on operation of the regional transportation system over the next 20 years. Other methods of spending limited transportation revenue would produce equally congested results.~~

~~It is important to note that the existing resource scenario is not intended to represent a regional policy statement of where transportation improvements should be directed if no new revenue sources are identified. Likewise, this scenario does not reflect local discussions of local priorities and should not be used to make a determination of local priorities. This scenario is one example of how limited transportation revenue would affect implementation of the 2040 Growth Concept.~~

During the 20-year plan period, approximately ~~$970 million~~ $2.9 billion in forecasted revenue was allocated for ~~road-related~~ capital improvements.~~[4] Because~~ T~~t~~his amount represents a major shortfall when compared to ~~identified long-term~~ the cost to implement the needs identified in the preferred system in Chapter 3.~~,~~ As a result, the financially constrained system does not attempt to address all transportation needs ~~current deficiencies – in effect, allocating 20 years of revenue toward immediate needs~~. Instead, the ~~is existing resource~~ financially constrained system attempts to focus ~~this~~ limited revenue in key 2040 design types throughout the region, including the central city, industrial areas and intermodal facilities and regional and town centers. Other considerations in developing the financially constrained system focused on prior commitments or previously highly ranked projects, smaller, key phases of larger projects and projects that would help complete the bicycle, pedestrian, transit, motor vehicle and freight systems identified in Chapter 1 of this plan. ~~areas that already have substantial transportation infrastructure in anticipation that future growth will be best accommodated in these places. These are generally areas with excellent freeway and arterial street access and major transit investments. Figure 5.1 shows the areas of the region targeted with limited transportation investments as part of this analysis.~~

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[3] See Appendix 4.1 for detail on the air quality conformity background and findings of compliance with federal planning regulations.

~~[4] See Chapter 4, Section 4.1 for more detail on existing revenue sources.~~

~~*Figure 5.1*~~
~~**Existing Resources System Map**~~

(Deleted)

~~*Source: Metro*~~

~~As shown in Figure 5.1, this area is defined as the east/west corridor stretching from Hillsboro to Gresham. The schematic identifies a number of centers, industrial areas and intermodal facilities within this area that will be critical to accommodating compact growth while minimizing the expansion of the urban area. In this corridor, regional centers and the central city are already served by light rail, and most centers have good highway access. Most of the region's industry and intermodal facilities are also located in this corridor, and are equally well served by existing transportation infrastructure. The existing resource system includes projects and programs that would support the ability of these areas to absorb continued growth and maintain their economic vitality.~~

~~However, focusing limited resources in this east/west corridor comes at the expense of other growing areas in the region. The implication of focused spending is that other areas will be less able to accommodate compact growth, and existing transportation facilities in these other areas will be heavily impacted by increased travel demand.~~[5]

5.1.2 Regional Performance[6]

Chapter 2 described expected travel demand for the year 2020 based on implementation of the 2040 Growth Concept and predicted population and employment. In summary, population and employment is expected to increase by 46 percent and 68 percent respectively between 1994 and 2020 within the urban growth boundary. This growth is expected to result in a corresponding increase in travel demand during the same time period. The increase in travel throughout the region is expected to have a significant impact on the performance of the regional transportation system. Overall, the ~~existing resources~~ financially constrained system is expected to result in ~~more~~ slightly less vehicle miles traveled than the preferred system~~, as shown in~~ Table 5.1 shows expected growth in travel within the urban growth boundary.

Though the ~~Existing Resource~~ Financially Constrained System was developed with an emphasis on ~~projects~~ serving ~~in~~ key 2040 Growth Concept centers and industrial areas and intermodal facilities, ~~areas where existing infrastructure is most able to absorb future growth~~, the travel demand in these areas ~~still~~ is expected to exceeded the ability of proposed motor vehicle and transit improvements to accommodate growth. The ~~east/west~~ motor vehicle system is expected to be very congested during the evening two-hour peak period, exceeding regional motor vehicle performance standards on most principal arterial routes, including the Banfield Freeway west of I-205, portions of the Sunset Highway, Highway 217, Interstate 5 and Interstate 205. Many major arterial routes throughout the region are also expected to experience significant congestion during the evening two-hour peak period, limiting access to the Gresham, Gateway, Oregon City, Clackamas, Beaverton and Hillsboro regional centers. Though the financially constrained transit system carries heavy volumes in the Eastside and Westside light rail corridors, congestion on

~~[5] See Appendix 1.5 for more detail on projects and programs assumed in the Existing Resource System.~~

~~many arterial routes~~ would significantly impact bus service on parallel arterial routes during the evening two-hour peak period.

~~Overall, the existing resources financially constrained system is expected to result in more slightly less vehicle miles traveled than the preferred system, as shown in Table 5.1.~~

Table 5.1

2020 ~~Existing Resources~~ Financially Constrained Systems~~ Vehicle Miles of Travel[7]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System	Difference Preferred and ~~Existing Resources~~ Financially Constrained Systems
Average weekday vehicle miles traveled	16,112,462	~~24,061,990~~	~~24,263,742~~	~~+1%~~
		24,049,650	24,041,362	-<1%
Average weekday vehicle miles traveled per person	14.10	~~14.44~~	~~14.56~~	~~+1%~~
		14.43	14.43	<1%
Average weekday vehicle miles traveled per employee	20.36	~~18.12~~	~~18.27~~	~~+1%~~
		18.11	18.10	-<1%

1 Within Metro urban growth boundary (excludes Clark County, Wash. and areas of Clackamas, Multnomah and Washington counties outside of the Metro urban growth boundary).

Source: Metro

Motor Vehicle System Performance

Like the preferred system, delay on the region's freeway and arterial street networks is also expected to increase between 1994 and 2020, with the greatest amount of delay predicted to occur on the arterial street network. Assuming implementation of the ~~existing resource~~ financially constrained system, ~~23.5~~ 20.3 percent of the region's arterial streets are expected to experience congestion during the evening two-hour peak period. In comparison, in the preferred system, slightly ~~more~~ less than ~~15~~ 14 percent of the region's arterial streets are expected to experience congestion during the evening two-hour peak period.

If the ~~existing resources~~ financially constrained system is implemented, the proportion of the region's freeway network experiencing congestion during the evening two-hour peak period is expected to increase from 15 percent to ~~35.8~~ nearly 39 percent between 1994 and 2020. In contrast, assuming implementation of the preferred system, the proportion of the region's freeway network experiencing congestion during the evening two-hour peak period is expected to be lower, at ~~28.6~~ 28.7percent.

Freeways in the ~~existing resources~~ financially constrained system are expected to experience slightly more than 1.5 times the amount of motor vehicle hours of delay as freeways in the preferred system. Likewise, arterial streets in the ~~existing resources~~ financially constrained

[7] Based on Appendix 1.2: System Performance Measures for Intra-UGB Trips~~, dated 11/1/99~~.

system are expected to experience almost twice as much motor vehicle hours of delay as arterial streets in the preferred system.

As a result of the significant increase in trip-making region-wide, average motor vehicle speeds are expected to decrease from 25 mph in 1994 to 19 mph in 2020 during the evening two-hour peak periods, assuming implementation of ~~existing resources~~ financially constrained system improvements. Average motor vehicle speeds are expected to be 22 mph in the 2020 Preferred System during the evening two-hour peak period. Table 5.2 compares the preferred and ~~existing resources~~ financially constrained systems, summarizing the differences in the amount and extent of congestion within the Metro urban growth boundary.

Table 5.2
2020 ~~Existing Resources~~ Financially Constrained System Motor Vehicle System Performance[1]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System
Average motor vehicle speed	*25 mph*	*22 mph*	*~~19~~ 20mph*
Average motor vehicle travel time	*11 minutes*	*~~13~~12 minutes*	*~~14~~13 minutes*
Percent of freeway miles experiencing congestion (v/c >0.9)	*14.9%*	*~~28.6~~28.7%*	*~~35.8~~38.6%*
Percent of arterial street miles experiencing congestion (v/c >0.9)	*6.0%*	*~~15.3~~13.7%*	*~~23.5~~ 20.3%*
Total motor vehicle hours of delay (v/c >0.9)	*~~7,509~~7,764*	*~~34,280~~33,102*	*~~59,011~~51,496*
Motor vehicle hours of delay on freeway (% of total)	*~~2,441 (1.91%)~~*	*~~10,182 (4.4%)~~*	*~~15,480 (5.8%)~~*
	2,325 (1.8%)	*9,684 (4.4%)*	*13,746 (5.6%)*
Motor vehicle hours delay on arterial streets (% of total)	*~~5,068 (3.97%)~~*	*~~24,098(10.4%)~~*	*~~43,531(16.4%)~~*
	5,439 (4.3%)	*23,418 (10.6%)*	*37,750 (15.4%)*

1 Based on evening two-hour peak period. Within Metro urban growth boundary (excludes Clark County, Wash. and areas of Clackamas, Multnomah and Washington counties outside of the Metro urban growth boundary).

Source: Metro

Alternative Mode Performance

Drive-alone trips as a percentage of all person trips are expected to decrease by ~~less~~ slightly more than one percent between 1994 and 2020, assuming implementation of the ~~existing resources~~ financially constrained system. By comparison, bicycle and pedestrian travel are expected to increase between 1994 and 2020. In 1994, bicycling or walking (not including walk trips to transit) represented slightly more than 6 percent of all person trips inside the urban growth boundary. By 2020, bicycle and pedestrian travel is expected to represent almost 8 percent of all person trips made inside the urban growth boundary, similar to the preferred and strategic systems.

Transit service hours are expected to increase by 45 percent~~almost double~~, increasing from ~~4,426~~ 4,400 hours in 1994 to more than 8,406 hours in 2020. Transit ridership is expected to increase by ~~26~~ 40 percent, representing ~~almost 4.5~~ more than 5 percent of all person trips in the region by

2020. The number of average weekday transit trips is expected to ~~increase by 96 percent~~ more than double between 1994 and 2020, increasing from 172,464 to more than ~~339,000~~ 387,000 transit trips. In comparison, ridership in the preferred system is expected to more than triple as a result of expanded transit service and transit capital improvements. The proportion of households and jobs within 1/4-mile of transit service is expected to decline by ~~6~~ 7 percent and ~~5~~ 4 percent respectively between 1994 and 2020, assuming implementation of the ~~existing resources~~ financially constrained system. In contrast, with the preferred system the proportion of households and jobs within 1/4-mile of transit service is expected to increase by 7 percent and 3 percent respectively between 1994 and 2020. Table 5.3 compares alternative mode performance between the preferred and ~~existing resources~~ financially constrained systems within the Metro urban growth boundary.

Table 5.3

2020 ~~Existing Resources~~ Financially Constrained System Alternative Mode Performance[1]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System
Walk trips (as a percent of total person trips)	*5.18%*	*6.81%*	*6.79%*
Bike trips (as a percent of total person trips)	*.97%*	*1.25%*	*1.17%*
Transit trips (as a percent of total person trips)	*3.55%*	*7.32%*	*~~4.47~~5.11%*
Average weekday transit trips (originating rides)	*172,464*	*551,757*	*~~339,205~~387,527*
Average weekday transit revenue hours	*4,400*	*13,836*	*~~8,406~~6,402*
Percent of households within 1/4-mile of transit	*78%*	*83%*	*73%*
Percent of jobs within 1/4-mile of transit	*86%*	*88%*	*~~81~~82%*

1 Within Metro urban growth boundary (excludes Clark County, Wash. and areas of Clackamas, Multnomah and Washington counties outside of the Metro urban growth boundary).

Source: Metro

Freight System Performance

Trucks are a critical part of moving goods within the Portland metropolitan region. Of the total goods moving into, out of and within the region, 62 percent complete all or part of the trip by truck. Other modes that move goods are barge, rail and air. In 1994, the region handled more than 17,000 truck trips daily. This number is expected to grow by nearly than 18,000 truck trips daily, representing an increase of 32 percent between 1994 and 2020. Truck hours of delay are expected to increase by more than eight-fold during the evening two-hour peak period between 1994 and 2020, assuming implementation of the ~~existing resources~~ financially constrained system. This represents a change from 4 percent of truck hours experiencing delay in 1994 to more than~~18~~ 17 percent of truck hours experiencing delay during the evening two-hour peak period.

In contrast, assuming implementation of the preferred system, truck hours of delay are expected to increase by more than five-fold during the evening two-hour peak period between 1994 and 2020. This represents a change from 4 percent of truck hours experiencing delay in 1994 to nearly 13 percent of truck hours experiencing delay during the evening two-hour peak period. Table 5.4 summarizes key freight system statistics, assuming implementation of the ~~existing resources~~ financially constrained system, and compares performance of the ~~existing resources~~ financially constrained system with the preferred system.

Table 5.4

2020 ~~Existing Resources~~ Financially Constrained System Freight System Performance[1]

	1994	2020 Preferred System	2020 ~~Existing Resources~~ Financially Constrained System
AWD total truck trips	*54,598*	*72,118*	*72,118*
AWD truck average trip length (miles)	*22.64*	*23.90*	*23.96*
Two-hour peak period truck vehicle hours of delay	*130*	*~~732~~713*	*~~1,142~~1,026*
Two-hour peak period average truck travel time	*36.53*	*~~43.28~~42.86*	*~~47.33~~45.90*

Note: This summary of freight system performance reflects Metro's regional truck travel forecasting model.

1 Within the four-county region, includes Clark, Clackamas, Multnomah and Washington counties.

Source: Metro

5.1.3 Subarea Performance

Significant congestion will remain on the regional transportation system, assuming implementation of the Financially Constrained System. As a result, the 2020 Financially Constrained System does not adequately meet the overall travel needs of the Portland metropolitan region for the next 20 years.

This section summarizes the performance of proposed 2020 Financially Constrained System improvements on the regional transportation system by RTP Subarea. The discussion focuses on an evaluation of the overall impact of certain improvements on access to the central city, regional centers, industrial areas and intermodal facilities.

Subarea 1: West Columbia Corridor

Industrial areas and intermodal facilities represent the majority of land-use types in this subarea. As primary land-use components in the 2040 Growth Concept, these areas in the West Columbia Corridor subarea are a focus of most financially constrained system improvements. Exceptions include several seismic retrofit projects and an interchange improvement at 33rd Avenue on Northeast Portland Highway. The financially constrained system assumed limited improvements to I-5 North corridor that included an extension of light rail to Clark County, Wa., widening I-5 North to three lanes in each direction from Lombard Street to the Expo Center and a smaller phase of ramp improvements to I-84 at Greeley Avenue.

Other improvements assumed for this subarea include a light rail extension to the Portland International Airport, capacity improvements to key arterial streets and freight rail lines that access industrial areas and intermodal facilities, system management strategies on arterial streets, bicycle and pedestrian improvements and the establishment of transportation management associations.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system perform comparably to the strategic system, largely because the two systems are nearly identical in terms of the assumptions for the West Columbia Corridor subarea, with the exception of I-5 North. I-5 North experiences more congestion in the financially constrained system when compared to the strategic system, reflecting limited improvements to the corridor. Other areas of significant congestion are in the vicinity of Portland International Airport, along Alderwood Road, Marine Drive and Northeast Portland Highway from 33rd Avenue to I-205. A number of new connections and capacity improvements are assumed in the vicinity of Portland International Airport.

Transit service in the West Columbia Corridor subarea is mostly limited to bus and light rail service to Portland Airport. Transit coverage in this subarea did not vary much from the strategic system, although both bus and light rail service are less frequent. Transit ridership to and from the subarea is expected to be somewhat lower than the strategic system, as a result. New and existing transportation management associations are expected to benefit the overall function of the transportation system in this subarea.

Subarea 2: Portland Central City and Neighborhoods

This subarea is centered on the Portland central city. As a primary land-use component in the 2040 Growth Concept, the Portland central city is a focus of many financially constrained system improvements, with many strategic system projects represented in the financially constrained network. Examples of projects not included in the financially constrained system include: I-5 access improvements from Macadam and the Central Eastside Industrial District, Belmont Avenue ramp improvements, some eastside bikeways, some traffic management enhancements, several seismic retrofit projects, pedestrian access-to-transit projects along outer-eastside mainstreets such as Division Street and 82nd Avenue and bikeways connecting southwest Portland neighborhoods to adjacent town centers.

Transit coverage in this subarea did not vary significantly from the strategic system, although both bus and light rail service are less frequent. Transit service in this subarea is mostly limited to regional bus service and light rail, extending north to the Portland Metropolitan Exposition (Expo) Center and south to the Milwaukie regional center from the Rose Quarter transit center, and then potentially to Clark County, Wash. The central city street car was extended to the North Macadam area in the financially constrained system. Overall, transit ridership to and from the subarea is expected to be somewhat lower than the strategic system as a result of the reduced bus and light rail service.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the strategic system. In particular, all radial principal arterial corridors exceed the level-of-service policy established in Chapter 1, including I-405, I-5 North, I-5 South, I-84 and US 26. System management strategies, transportation management associations and improvements to the regional bike and pedestrian systems represent a higher percentage of financially constrained system projects within this subarea as a means to provide adequate alternatives to the congested motor vehicle system. Bicycle access to the Portland central city and southwest town centers would likely be affected on major routes like Barbur Boulevard, Macadam Avenue and Powell Boulevard as a result of several southwest Portland bikeways being not included in the financially constrained system.

Without light rail service improvements to the Highway 99E/224 corridor, there is not an adequate alternative to congestion during the evening-two hour peak period. Highway 224 experiences more congestion in the vicinity of the Ross Island and Sellwood bridges in the financially constrained system when compared to the strategic system during the evening two-hour peak period. Similarly, Barbur Boulevard and I-5 south of I-405 are expected to experience significantly more congestion than the strategic system without an adequate high-capacity transit alternative in the Barbur Boulevard corridor.

Maintenance and preservation of the Willamette River Bridges is expected to fall behind given the funding limitations of the financially constrained system; this could have significant impacts on access to the Portland central city by all modes of travel.

Subarea 3: East Multnomah County

The Gresham and Gateway regional centers and the east Columbia Corridor industrial area are included in this subarea. As primary land-use components of the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements. Examples of projects located outside of these areas that were not included in the financially constrained system include: widening I-84, improvements to I-205, multi-modal retrofits of arterial streets , localized capacity improvements to address significant bottlenecks on Division Street (east of 257th Avenue), 162nd, 201st, Halsey, Glisan, Palmquist and Orient roads and connectivity improvements in the east Columbia Corridor industrial area. Transit service in the East Multnomah County subarea included regional bus service and light rail. Transit coverage in this subarea did not vary from the strategic system, although both bus and light rail service are less frequent and there are fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic systems. In particular, I-205, Powell Boulevard and north/south arterial streets that access I-84. The level of congestion on the motor vehicle network does not significantly affect access to the Gresham regional center because assumed transit service and multi-modal retrofits of existing streets provide alternatives. Travel demand from developing areas south of Gresham regional center is expected to cause Division Street, Powell Boulevard and Foster Road to experience significant congestion during the evening two-hour peak period.

In contrast, Gateway experiences significant spillover traffic from the Banfield Freeway corridor. As a result, a number of east/west corridors in the Gateway area, including Halsey, Glisan, Burnside, Stark and Division streets experience more congestion in the financially constrained system as compared to the preferred and strategic systems during the two-hour peak period.

In addition, access to the South Shore industrial areas will likely be affected by not constructing the Marine Drive extension, 207th Extension, Sandy Overpass, I-84/Troutdale interchange, and capacity improvements to 162nd and 201st avenues. As a result, travel demand is expected to shift to other routes such as 181st and 223rd avenues.

System management strategies, transportation management associations and improvements to the regional bike and pedestrian systems represent a higher percentage of financially constrained system projects within this subarea as a means to provide adequate alternatives to the congested motor vehicle system.

Subarea 4: Damascus/Pleasant Valley

The Damascus/Pleasant Valley urban reserve areas represent the majority of land uses in this subarea. As a result, most financially constrained system improvements for this area focused on developing a modest base street network to serve planned urbanization in this part of the region. Performance of the financially constrained system in the Pleasant Valley/Damascus area varies significantly from the preferred and strategic systems, largely due to the lack of an adequate street network to serve planned urbanization in this part of the region. In addition, due to

funding limitations the financially constrained system assumed only Phase 1 of the Sunrise Corridor principal arterial connection, modest capacity improvements to arterial streets, including Foster Road, 172nd Avenue and Sunnyside Road, and modest improvements to the regional bicycle system. Examples of projects not assumed in the financially constrained system to serve this subarea include: a project to widen 242nd Avenue from Gresham regional center to Highway 212, regional bus service expansion, a number of surrogate collector and arterial street network and implementation of a transportation management association.

Transit service in this subarea includes regional bus service that connects to Clackamas and Gresham regional centers. Transit coverage in this subarea was also significantly less in the financially constrained system when compared to the preferred and strategic systems, and both bus and light rail service were less frequent.

Financially Constrained System Performance

Despite modest capacity improvements to most existing arterial streets in this subarea, the motor vehicle system experiences significantly more congestion than the preferred and strategic systems during the two-hour peak period. In addition, differences in the surrounding Multnomah and Clackamas county networks are expected to affect access to the Damascus and Pleasant Valley areas from the rest of the region. In the financially constrained system, scaled-back improvements to I-205 are expected to make travel in and out of Clackamas County more difficult, which is compounded by the job/housing imbalance between Clackamas County and adjacent subareas to the north and west.

Arterial routes like Foster Road, Sunnyside Road and 182nd Avenue that connect the Damascus-Pleasant Valley area to employment centers outside of Clackamas County are expected to be very congested in the financially constrained system during the evening two-hour peak period. In terms of access to Multnomah County, the lack of a collector and arterial street network north of Foster Road and expected congestion along Foster Road are expected to make travel in and out of Multnomah County more difficult and result in diversion of traffic onto other rural routes. Furthermore, the level of transit service assumed for this area is not expected to provide an adequate alternative to peak hour congestion.

Subarea 5: Urban Clackamas County

The Clackamas and Oregon City regional centers and the Clackamas industrial area are included in this subarea. As primary land-use components in the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements and many strategic system projects are represented in the financially constrained network. Key improvements like adding capacity to I-205, Highway 224, the Sunrise Corridor and high-capacity transit to Clackamas and Oregon City regional centers are not retained in the financially constrained system. Transit service in this subarea includes regional bus service and light rail, from the Rose Quarter transit center to the Milwaukie town center. A light rail extension from Milwaukie to Oregon City and Clackamas regional centers is not included in the financially constrained system. Transit coverage and service in this subarea varied significantly from the preferred and strategic systems, including less frequent bus and light rail service and fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Overall, motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic system. The urban Clackamas County transportation system is already overburdened in the preferred and strategic systems, due to the heavy concentration of urban reserves adjacent to and within this subarea. In addition, a lack of improvements to the arterial and collector street network results in congestion during the evening two-hour peak period on major routes, like Sunnyside Road, 82nd Avenue and McLoughlin Boulevard. This significant congestion is further compounded by not including I-205 and Highway 99E/224 capacity improvements or adequate transit alternatives for these principal and major arterial corridors in the financially constrained system. This has a dramatic effect on both arterial routes and parallel routes, since the job/housing imbalance in urban Clackamas County results in a strong north/south demand between this subarea and the employment areas located in the Portland central city and East Multnomah County subareas. Several bottlenecks in the Clackamas industrial area result when improvements to freight access routes like Jennifer Street, 82nd Drive and Highway 213 are not included. These changes affect access to the industrial area from the rest of the region.

Access to the Oregon City regional center also is expected to be limited by extensive congestion along I-205 and the street network south of the Clackamas River and East of the Willamette River, including Highway 213, Molalla Avenue and Beavercreek Road. Urban reserve areas to the south of Oregon City are also expected to impact access to the regional center as planned growth in these areas cannot be adequately served by proposed improvements to Highway 213.

Most bicycle and pedestrian improvements assumed in the financially constrained system are limited to regional and town centers thus limiting bicycle and pedestrian access along major corridors that connect these centers. System management strategies, transportation management associations and improvements to the regional bike and pedestrian systems represent a higher percentage of financially constrained system projects within this subarea as a means to provide alternatives to the congested motor vehicle system.

Subarea 6: South Washington County

Washington Square regional center and the Tualatin industrial area are included in this subarea. As primary land-use components in the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements. Examples of projects located outside of these areas that were not included in the financially constrained system include: I-5/99W Connector, widening 99W, bike and/or pedestrian improvements in town centers, and several collector and minor arterial connectivity and capacity improvements in Tigard and Wilsonville town centers.

Transit service in this subarea includes regional bus service and peak-hour only commuter rail service connecting Wilsonville to Beaverton. Transit coverage in this subarea varied significantly from the preferred and strategic systems. Transit coverage and service in this subarea varied significantly from the strategic system, including less frequent bus and light rail service and fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic systems during the evening two-hour peak period. Absence of the I-5/99W Connector is expected to divert traffic onto 99W, Tualatin-Sherwood Road and other rural routes. This in turn is expected to impact access to regional and town centers within the subarea. Local circulation and access to Tigard town center is limited by significant congestion along 99W in the financially constrained system during the two-hour peak period. Highway 217 in the vicinity of Washington Square regional center and I-5 south of Kruse Way are expected to experience significant congestion. Commuter rail between Wilsonville and Beaverton and transit service along the Barbur Boulevard corridor do not provide adequate alternatives to congestion in this part of the region. Highway 217 experiences significant congestion in some sections in the vicinity of Washington Square regional center during

Most bicycle and pedestrian improvements in the financially constrained system are limited to regional and town centers thus limiting bicycle and pedestrian access along major corridors that connect these centers. A relatively strong program of transportation management associations is expected to provide some benefits to the transportation system.

Subarea 7: North Washington County

Beaverton and Hillsboro regional centers and the Sunset industrial area are included in this subarea. As primary land-use components in the 2040 Growth Concept, these areas are the focus of most financially constrained system improvements. Several strategic system projects are not included in the financially constrained system, including capacity improvements to US 26 west of Murray Boulevard, portions of Walker Road and arterial streets north of US 26. Bike and/or pedestrian improvements along Walker Road, Denney Road, Springville Road, Western Avenue, Canyon Road, Baseline Road, Allen Boulevard and Tualatin Valley Highway were also not included. Most bicycle and pedestrian improvements assumed in the financially constrained system are limited to projects that also add road capacity.

Transit service in this subarea includes regional bus service, peak-hour only commuter rail service connecting Wilsonville to Beaverton and light rail. Transit coverage and service in this subarea varied significantly from the preferred and strategic systems, including less frequent bus and light rail service and fewer capital improvements to increase bus speed and reliability.

Financially Constrained System Performance

Overall, motor vehicle and freight systems assumed in the financially constrained system are expected to be more congested than the preferred and strategic systems during the evening two-hour peak period. In particular, sections of US 26 and Walker Road near the Sunset industrial area are expected to experience significant congestion during the evening two-hour peak period. In addition, Tualatin Valley Highway, Beaverton-Hillsdale Highway, Farmington Road, Jenkins Road, portions of Murray Boulevard, Scholls Ferry Road and West Union Road experience significant congestion in the financially constrained system during the evening two-hour peak period. Bus transit service does not provide an adequate alternative to this congestion.

Highway 217 between Beaverton and Washington Square regional centers is expected to experience in part due to the amount of local trips using Highway 217 to access the regional centers. Local connectivity improvements assumed in downtown Beaverton provide some alternatives to congestion on major arterials entering Beaverton regional center. Commuter rail

service does provide an alternative to this congestion for some types of trips, but better bus feeder service is needed. A relatively strong program of transportation management associations is expected to provide some benefits to the transportation system.

Section 5.3 remains unchanged from Resolution No. 99-2878B (December 16, 1999)

5.4 Strategic System Financing

5.4.1 Principles for Funding the Strategic System

Funding the 2020 Strategic System will require additional revenue sources. The following is an illustrative list of principles that should be evaluated when elected officials and others consider a strategy for pursuing additional revenue sources. The principles are not exclusive of one another; there will be a dynamic tension between competing principles. It will be up to decision-makers to balance these natural tensions in adopting a financial strategy. Additional principles may also be developed as further work is completed on a funding strategy for the 2020 Strategic System as outlined in section 6.8.14.

Adequacy

- *Adequacy in addressing funding shortfall.* A new source should make a significant contribution to the funding shortfall identified in this RTP.

- *Fee revenue should grow with increased use and inflation.*

- *Source of fee revenue should contribute to diversity of transportation revenue sources for overall stability of funding.* A revenue source should not be vulnerable to the same variable conditions, such as fuel efficiency or economic slowdowns, as existing transportation revenue sources.

Flexibility

- *Projects/programs supported should encourage public/private partnerships.* Fees should allow spending on projects that leverage private investments that produce transportation benefits.

- *Fee revenue should be flexible with ability to address changing transportation priorities.* Fees should allow spending on whichever transportation project is the priority for the implementing jurisdiction.

- *Existing flexible funding (STP, CMAQ and Enhancement funds) should remain flexible and available for any eligible priority project.* The region should continue to advocate to Congress to maintain the flexibility of these funds when applied to regional priorities and not dedicate this funding to any particular type or mode of transportation improvement.

Fairness

- *Fee related to use.* Fees paid should be related to use or beneficiaries of the improvements or maintenance. The gas tax costs drivers more the more they drive but does not address differences in fuel efficiency between drivers nor does it address whether the driver is using the system at congested periods of the day. System development charges (SDC's) are a method of charging growth for its effect on the transportation system. While there will always be baseline charges everyone pays for the benefits everyone receives from having a transportation system, fees should provide the capacity to increase or decrease relative to the use of or impact to the transportation system.

- *Fee should have equitable geographic burden relative to area of benefit.* Maintaining access through the region and to regional facilities should receive fee contributions from throughout the region. Transportation facilities that only serve sub-regional or local purposes should be funded from sub-regional or local resources.

- *Fee should not unduly burden low and fixed-income populations.* While fees should provide capacity to increase or decrease with use of the transportation system, the sliding scale of transportation costs should recognize the burden that large, irregular charges pose to persons on fixed or limited incomes. Alternatives to these charges, such as alternative or reduced payment options or equitable transportation services, should be provided. An evaluation of new revenues should also include an analysis of the overall affordability of transportation fees for low and fixed income households.

Implement Policy Objectives

- *Fees should support 2040 land use objectives.* New fees should be evaluated for potential effects on 2040 land use goals. For example, fees should not provide a disincentive for developing in Centers or promote development in rural areas.

- *Fees should help the region meet mode-split targets.* New fees should help the region meet mode-split targets by providing relative cost advantages to alternative modes to the single occupant vehicle.

Address Public Accountability

- *Fees generated able to support identifiable projects with tangible benefits.* Fees should have the capacity to allow policy makers the ability to clearly define the relationship between the payment of the fee and the projects and/or maintenance to be provided. This capacity will allow policy makers to educate the public about the benefits of the transportation improvements provided relative to the fees paid.

5.4.2 Potential New Revenue Sources

This section provides a description of revenue sources currently in use in the Metro region that could provide additional revenue as well as new sources of revenue that have been recently

studied as potential sources of transportation funding. These revenue sources are divided into four broad categories: user-pay systems, development-based systems, special funds and levies and other transportation financing options. Additional sources of transportation funding may be considered as policy-makers develop a long-term transportation funding strategy for this region.

User Pay Systems

- **Increase in State gas tax.** Under current rates of distribution of state gas taxes, an additional 1 cent in the state gas tax would initially result in an additional $5 million annually for the regional road system and an additional $3.9 million annually for the state highway system within the Metro area. By the year 2020, that same one cent increase would result in an additional $6 million for the regional road system and $4.6 million for state highways in the Metro region.

- **Increase in State vehicle registration fee.** An increase in the state vehicle registration fee would result in an additional $92 million in year of expenditure dollars for highway capital projects and $86 million in year of expenditure dollars for road capital projects during the 20-year plan period in the Metro region.

- **Tri-county gas tax.** Revenue could be created for transportation maintenance or capital projects with a uniform gas tax in Clackamas, Multnomah and Washington counties. Raising the tax in Clackamas and Washington counties to equal Multnomah County's 3 cents per gallon gas tax would create an additional $4.7 million of revenue in the year 2000 for the regional road system, increasing to $6.8 million by the year 2020. Each additional 1 cent per gallon would create an additional $3.7 million of revenue in the year 2000 for the regional system, increasing to $5.4 million by the year 2020.

- **Tri-county vehicle registration fee.** The 1999 Legislature provided each county the ability to raise additional transportation revenues through a local vehicle registration fee of up to $10 per year, by request of the County Commission. If all three Metro area counties implemented this fee, $9.4 million would be available for local roads, in addition to $3.1 million for Willamette River bridges in the year 2000, increasing to $13.3 million and $ 3.5 million respectively by the year 2020. This would result in $408 million in year of expenditure dollars available for capital projects in the Metro region.

  Authority already exists for the three counties or Metro to refer to voters a vehicle registration fee up to the amount of the state vehicle registration fee. At $40 per biennium, approximately $25 million could be raised in the region in the year 2000, increasing to $33.5 million in the year 2020.

- **Peak period pricing.** Electronic tolling of highway use during congested periods can provide some revenues for needed highway expansions. In addition, peak period pricing can manage congestion on new highway lanes, thereby extending their life and reducing the need for future expansions. The Traffic Relief Option Study, undertaken with the guidance of a citizen's task force and completed in 1999 by Metro and ODOT, examined the potential of various types of roadway pricing to meet regional transportation, environmental and land use goals. The citizen's task force recommended that pricing be considered whenever major new highway capacity was planned. The study found that congested roadways had the potential to generate some revenue towards the cost of construction.

The evaluation of the performance of eight specific pricing options is contained in *Working Paper 9* dated May 10, 1999. The study recommended further consideration of peak period pricing on all major, new highway capacity projects. A regional analysis of the effect of this approach to pricing is currently being conducted. Further analysis is recommended as part of individual highway projects.

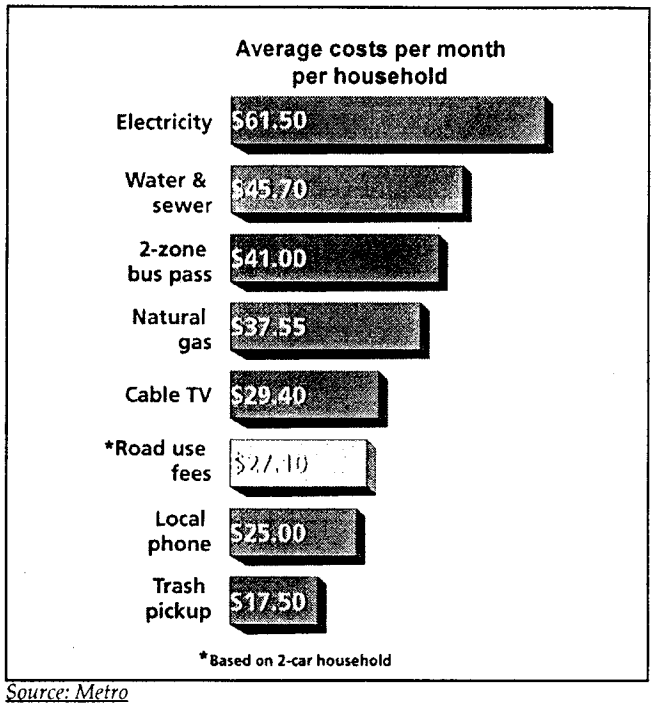
Development-Based Systems

- **Increase in system development charges.** Cooperation among most or all of the jurisdictions of the region to pursue a partial or full cost-recovery strategy for transportation infrastructure with system development charges would result in additional revenues available for transportation purposes. The amount of revenue available would depend on the exact nature of the policy, the number of jurisdictions participating, and the costs of providing infrastructure in each jurisdiction.

Special Funds and Levies

- **Road maintenance fee.** A road maintenance fee is a general assessment of properties for maintenance of the transportation system that serves the property. Figure 4.6 shows that, on average, transportation fees are among the least expensive utilities when compared to other utilities in the Portland metropolitan region. The city of Tualatin has such a system that assesses property by the number of vehicle trips typically generated by the developed use of that property. The fee is collected as a part of the city utility bill. This fee could be implemented by ordinance within any city or county in the Metro region. A road maintenance utility fee similar to Tualatin's, implemented by all of the local jurisdictions on property within the Metro region, could generate approximately $22 million in the year 2000, increasing to $32 million in the year 2020. Rates could be adjusted to collect revenues equal to all or some portion of the cost to maintain each jurisdiction's road system.

Figure 5.
1999 Comparative Utility Costs



Source: Metro

- **Payroll tax rate increase for transit.** A potential source of additional revenue for transit operations would be to raise the rate of the payroll tax for either Tri-Met or SMART. An increase of .1% of the payroll tax rate would raise $21 million annually in the Tri-Met district or approximately $500,000 annually in the SMART district ($1998). Tri-Met's payroll tax rate is limited by state statute.

- **Property tax general obligation bond.** General obligation bonds, backed by property taxes have been used for transportation improvements in the Metro region, especially for capital projects. These taxes must be approved by voters in a general election. A tax of 1 cent per $1,000 of assessed property value would raise $770,000 annually in the Metro region in the year 2000, increasing to approximately $1.5 million by the year 2020. Bonding this revenue stream for capital projects would incur bonding and interest costs but save money on project inflationary costs by constructing the projects earlier than would otherwise be possible.

- **Vehicle Miles Traveled Fee.** A fee on the miles of travel for non-commercial vehicles registered in the three metro counties (or some portion thereof) could be implemented. A fee of 1¢ per mile, indexed to inflation, for residents of the Metro region would generate $1.33 billion over the course of the 2000 - 2020 plan period. The average cost per vehicle would be approximately $10 per month.

- **Parking Fee for non-residential spaces.** A fee for each non-residential off-street parking space could be levied within the Metro region. A fee at the rate of $1 per month per space, indexed to inflation would generate $197 million over the course of the 2000 - 2020 planning period. This total assumes a 10 percent reduction in parking spaces per capita by year 2020 as

a result of parking rations defined in Title 2 of the Urban Growth Management Functional Plan and is consistent with state transportation planning rule requirements.

Other Transportation Financing Options

The Oregon Department of Transportation has recently published the final report of the "Innovative Finance Study," a review of potential new sources of transportation funding. In addition to several of the potential sources described, the study investigated the potential for funding transportation projects with:

- **Value Capture:** private interests compensating a public agency for a portion of the economic value created to the private interest with the creation of the transportation facility

- **State Infrastructure Bank:** A revolving fund that can offer loans and credit assistance to sponsors of certain highway or transit capital projects.

- **Federal Credit - Transportation Infrastructure Finance and Innovation Act:** This act authorizes state transportation departments to provide secured loans, loan guarantees and standby lines of credit to sponsors of certain highway and transit projects.

- **Grant Anticipation Notes:** This allows state transportation departments to generate up-front capital for large capital projects by allowing recovery of interest payments and other bond issue costs on anticipation of receipt of future federal grant monies.

The Metro region, in cooperation with the Oregon Department of Transportation, could pursue these finance options for eligible transportation improvements. Other sources of revenue new to this region could also be considered to fund transportation needs.

5.4.3 Finance Concepts for Funding the Strategic System

The following is a general description of what would be necessary to provide revenues to fund the 2020 Strategic System. A more detailed financial analysis is necessary to accurately identify how much revenue would be raised by increases in existing revenue sources or by the creation of new revenue sources. Further study and engineering is also needed to more accurately estimate the project costs of the 2020 Strategic System.

Each agency or jurisdiction that administers a revenue source has the authority to control the spending of additional revenues from those sources in accordance with any laws governing the revenue source. *The following scenarios are only to illustrate the magnitude of what would be required to fund the 2020 Strategic System. Four possible scenarios for raising the revenues necessary to fund the 2020 Strategic System are described for comparative purposes but do not constitute an adopted financial strategy for the region.*

The Problem

Many jurisdictions in the region have traditionally relied on the State Legislature to increase the state gas tax as a primary means of funding their transportation needs. As such, revenues from the State Highway Trust Fund, which is funded from the state gas tax revenues and related truck fees and vehicle registration fees, has become the primary source of transportation funding for many jurisdictions in the region. The problem the region is facing by relying primarily on this revenue source is that it is subject to two factors that reduce its purchasing power over time; inflation and increasing vehicle fuel efficiency. Therefore, the gas tax cost per mile driven in Oregon (in current $) has decreased from 2.6¢ per mile in 1970 to 1.3¢ per mile today.

This reduction in revenues relative to road use in the state has reduced the ability of ODOT and local jurisdictions to maintain the transportation system at optimum levels and to respond to growth with modernization projects. There is currently a backlog of maintenance work to be completed on both state highways and on the regional arterial and major collector road system. There is a need to not only address this backlog of maintenance needs but to increase fees just to address further reductions in purchasing power of the existing state gas tax revenues which would result in further deterioration of maintenance levels. In addition to maintenance needs, there are highway, road, and transit modernization projects that need funding to address current needs and needs that will be created by the growth of population and jobs in the region. An increase in transit operating revenues will also be needed to address growth in transit service needs in the region.

A major challenge in transportation financing is funding road and highway maintenance and preservation at optimum levels (defined here in general terms as keeping pavement at 90 percent in fair or better condition). To extend the life cycle of existing facilities, transportation agencies generally attempt to achieve this standard as a priority for spending over building new facilities that would then add to future maintenance and preservation costs. On average, most agencies in the region have only been able to maintain pavement condition at approximately 77 percent fair or better condition. This has created a backlog of maintenance needs. The first three funding concepts below address this backlog and fully fund maintenance and preservation costs, in addition to new capital projects. The fourth funding concept does not attempt to address the backlog of maintenance needs and demonstrates what level of funding is necessary to maintain existing pavement conditions. It should be noted that this funding concept does not account for any increase in capital funding necessary that may result from premature failure of existing facilities due to not being optimally maintained.

Four funding concepts are described below that would address these needs. The concepts are summarized in Table 5.8.X. More detailed information on how each of the following funding sources would address 2020 Strategic transportation system needs can be found in Appendix XX.

Concept 1: Annual 4¢ State Gas Tax Increase

Continuing to rely on annual increases to the state gas tax would require action by the State Legislature to increase the state gas tax by 4¢ every year for the next 20 years. This would address the declining purchase power of the gas tax revenues, fund the backlog of maintenance needs, fully fund modernization of the 2020 Strategic system and provide additional revenue for local road capital projects.

Under this concept, it will be necessary to provide additional funds to expand transit operations to levels anticipated in the 2020 Strategic system. Increasing the rate of the payroll tax by .1 percent from current rates (Tri-Met = .6 percent, SMART = .3 percent) would significantly address the funding shortfall needed to operate the 2020 Strategic Transit network.

Current law does not allow State Highway Trust Fund revenues to be used for transit capital or operations. However, fully funding the highway and road maintenance and modernization needs with increases in the state gas tax would allow the maximum amount of existing flexible revenues (STP, CMAQ and Enhancement funds) to be used for transit; an additional $284 million over the course of the planning period. General obligation property tax bonds could provide the remaining $699 million needed for transit capital projects to implement the 2020 Strategic transit system. An average annual cost for the owner of a home assessed at $150,000 in value would be approximately $58 between the years 2005 and 2040 to retire the bonds. Actual annual costs would vary depending on the bond terms and conditions.

Concept 2: Fund Maintenance Locally

Another alternative concept to funding the 2020 Strategic transportation system would be to address the funding shortfall for City and County road maintenance locally and fund capital projects and ODOT highway maintenance with state gas tax increases when action from the state Legislature is feasible.

Several funding tools could potentially be used to provide additional revenues for maintenance. Additional local gas taxes and a local vehicle registration fee could be used for City and County maintenance needs. If the three Metro area counties implemented a uniform 3¢ per gallon gas tax with an annual 1¢ increase and a local $15 vehicle registration fee, a significant portion of the City and County maintenance backlog could be addressed, maintaining road conditions at improved conditions from today.

A street utility fee, similar to such fees already in place in cities such as Tualatin, Wilsonville, and Grants Pass, could be implemented throughout the region. Street utility fees are typically included as part of a city or special district water and sewer or other utility billing. The City of Tualatin's fee structure is based on average vehicle trips generated by the land use classification of the property. A fee at two and a half times the current City of Tualatin rate implemented throughout the region would address a significant portion of the City and County maintenance backlog. At this rate the cost to a single family home would be $3.56 per month. Costs to other land uses (commercial, industrial, etc.) would vary. Rates could be set to achieve any level of maintenance desired by the implementing jurisdiction.

Road maintenance districts are property tax based assessments for the purpose of maintaining the transportation system under the premise that every property in the billing area benefits from the access provided by the transportation system. Washington County currently has a road maintenance district for unincorporated areas. If such a district were put in place throughout the region at approximately twice the current rate of Washington County's district, city and county roads would continue to be maintained at current standards through the planning period (to year 2020). This would cost the owner of a home assessed at $150,000 approximately $6.25 per month.

Any one of or a combination of the above new revenue sources could be implemented throughout the region to address city and county maintenance needs. This would demand that

ODOT highway maintenance and road and highway capital project funding to be addressed at the state level. To fully fund the needs in these areas and stay even with inflation, as defined by the 2020 Strategic system, would require a 2¢ increase in the state gas tax every year throughout the planning period. A $9 increase in the state vehicle registration fee could be implemented in lieu of a 1¢ increase in the state gas tax.

As ODOT's share of the annual 2¢ increase in the state gas tax would be used to meet highway maintenance needs, the City and County share of the state gas tax increases would need to pay for the modernization of both road and highway projects of the 2020 Strategic system. Tolling revenues would also be needed for highway capital costs. [8] Therefore, cities and counties would need other sources of new revenue to pay for the construction of local roads. This financial concept assumes local jurisdictions would raise system development charges (SDC's) and/or other sources to fund the costs of constructing local streets.

If a street utility fee were considered throughout the region for street maintenance, it could also be considered for transit operations. A transit utility fee with rates at or slightly higher than the City of Tualatin's street maintenance fee would generate revenues to address revenue needed to operate the 2020 Strategic transit system. At the Tualatin rate, the cost to a single family home would be $1.42 a month while costs to other land uses would vary according average vehicle trip generation rates.

The "Fund Maintenance Locally" concept would not raise as much revenue for the road system as an annual 4 increase to the state gas tax. The additional funding, however, could allow some additional flexible revenues to be allocated to transit capital projects. An additional $53 million of flexible revenues would bring expenditures on transit capital to half of the available flexible funds. General obligation property tax bonds could provide the remaining $932 million needed for transit capital projects to implement the 2020 Strategic transit system.

Concept 3: Fund Modernization Locally

Another alternative concept to funding the 2020 Strategic transportation system would be to address the funding shortfall for maintenance with state gas tax increases and fund capital projects with new local sources.

To fully fund the maintenance needs of the state highway and city and county road system would require a 2¢ increase in the state gas tax every year throughout the planning period. A $9 increase in the state vehicle registration fee could be implemented in lieu of a 1¢ increase in the state gas tax.

With maintenance addressed by state funding sources, local jurisdictions could attempt to fund highway and road modernization locally. Two new potential sources of transportation revenue could be considered for modernization projects; a fee on vehicle miles traveled (VMT) and a fee on non-residential parking spaces.

[8] An analysis of potential toll revenues that could be used to help fund Strategic system projects is underway at the time of this draft of the RTP. Specific information from that analysis will included in future drafts of the RTP produced following adoption of the Transit Relief Options study.

At a rate of 1¢ per mile and indexed to inflation, a VMT fee on residents of the Metro region would generate $1.33 billion over the course of the planning period. This represents approximately one half of the funding shortfall of road and highway capital projects in the 2020 Strategic system.

A $7 per space, per month parking fee on all non-residential parking spaces in the region, indexed to inflation, would generate $1.38 billion over the course of the planning period. This represents approximately one half of the funding shortfall of road and highway capital projects in the 2020 Strategic system. This financial concept assumes local jurisdictions would raise system development charges (SDC's) and/or other sources to fund the costs of constructing local streets.

As with the "Annual 4¢ State Gas Tax Increase" concept, increasing the rate of the payroll tax by .1 percent from current rates (Tri-Met = .6 percent, SMART = .3 percent) would significantly address the funding shortfall needed to operate the 2020 Strategic Transit network.

The "Fund Modernization Locally" concept would also not raise as much revenue for the road system as an annual 4¢ increase to the state gas tax. The additional funding, however, could allow some additional flexible revenues to be allocated to transit capital projects. An additional $53 million of flexible revenues would bring expenditures on transit capital to half of the available flexible funds. A combination of system development charges and general obligation property tax bonds could provide the remaining $932 million needed for transit capital projects to implement the 2020 Strategic transit system.

Concept 4: Accept Current Maintenance Levels

A final funding concept to be presented in the RTP is for agencies and jurisdictions in the region would be to accept the current level of maintenance of area roads and bridges. Today, approximately 77 percent of regional roads and highways are maintained at fair or better pavement condition. While maintaining the road system at 90 percent fair or better pavement condition provides the longest life of the facility and safest operating conditions, the agencies and jurisdictions of the region may decide that it is simply not feasible to fund maintenance at this level.

An annual increase of 1¢ in the State gas tax would allow ODOT to continue to maintain highways in the region at current levels. The same annual 1¢ increase in the State gas tax would allow cities and counties to use their share to maintain roads in the region at current maintenance levels.

Funding modernization of the highway and road system to implement the 2020 Strategic transportation system would take additional resources. A second annual increase of 1¢ in the State gas tax, for a total of 2¢ annual increase, in conjunction with an increase in system development charge revenues and tolling of new highway lanes could fund modernization of the 2020 Strategic road and highway system.

As described in the other concepts, an increase in the payroll tax rate could fund additional transit service to implement the Strategic transit system.

In this funding concept, no additional flexible revenues would be shifted from road and highway projects to transit projects. A combination of system development charges and general obligation

property tax bonds could provide the additional $985 million of local revenues needed for transit capital projects to implement the Strategic transit system.

Conclusions

- The Strategic transportation system is not too large or expensive relative to past per capita expenditures in transportation or in relative utility costs.
- The region will need actions at both the state and local levels to successfully fund the 2020 Strategic System and keep up with inflation.
- The region will need new, creative sources of transportation revenue to successfully fund the Strategic system and keep up with inflation.
- In the short-term, until new funding sources are established, setting clear priorities for spending will be increasingly important as funding will be limited to less than the identified need.

METRO

Attachment 4

Proposed Revisions to Title 2 – Parking and Title 10 - Definitions

METRO

Draft Amendment

Urban Growth Management Functional Plan
Titles 2 and 10

The Oregon Transportation Planning Rule (TPR) was amended in September 1998 to include a number of refinements, many of which recognized elements of Metro's planning efforts in developing the RTP and Urban Growth Management Functional Plan (UGMFP). Most of these new provisions in the TPR are addressed in the draft 2000 RTP. However, the following revisions to Title 2 and Title 10 of the UGMFP are needed to comply with the expanded requirements of OAR 660-012-0045(5)(d)(E-F):

3.07.210 - Intent

The State's Transportation Planning Rule calls for reductions in vehicle miles traveled per capita and restrictions on construction of new parking spaces as a means of responding to transportation and land use impacts of growth. The Metro 2040 Growth Concept calls for more compact development as a means to encourage more efficient use of land, promote non-auto trips and protect air quality. In addition, the federally mandated air quality plan adopted by the state relies on the 2040 Growth Concept fully achieving its transportation objectives. Notably, the air quality plan relies upon reducing vehicle trips per capita and related parking spaces through minimum and maximum parking ratios.

This title addresses these state and federal requirements and preserves the quality of life of the region. A compact urban form requires that each use of land is carefully considered and that more efficient forms are favored over less efficient ones. Parking, especially that provided in new developments, can result in a less efficient land usage and lower floor to area ratios. Parking also has implications for transportation.

In areas where transit is provided or other non-auto modes (walking, biking) are convenient, less parking can be provided and still allow accessibility and mobility for all modes, including autos. Reductions in auto trips when substituted by non-auto modes can reduce congestion and increase air quality.

3.07.220 - Performance Standard

A. Cities and counties are hereby required to amend their comprehensive plans and implementing regulations, if necessary, to meet or exceed the following minimum standards:

   1. Cities and counties shall require no more parking than the minimum as shown on Table 3.07-2, Regional Parking Ratios, attached hereto; and

   2. Cities and counties shall establish parking maximums at ratios no greater than those listed in the Regional Parking Ratios Table and as illustrated in the Parking Maximum Map. The designation of A and B zones on the Parking Maximum Map should be reviewed after the completion of the Regional Transportation Plan and every three years thereafter. If 20-minute peak hour transit service has become available to an area within a one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit, that area shall be added to Zone A. If 20-minute peak hour transit

service is no longer available to an area within a one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit, that area shall be removed from Zone A. Cities and counties should designate Zone A parking ratios in areas with good pedestrian access to commercial or employment areas (within 1/3 mile walk) from adjacent residential areas.

3. Cities and counties shall establish an administrative or public hearing process for considering ratios for individual or joint developments to allow a variance for parking when a development application is received which may result in approval of construction of parking spaces either in excess of the maximum parking ratios; or less than the minimum parking ratios.

   Cities and counties may grant a variance from any maximum parking ratios through a variance process.

B. Free surface parking spaces shall be subject to the regional parking maximums provided for Zone A and Zone B. Parking spaces in parking structures, fleet parking, parking for vehicles that are for sale, lease, or rent, employee car pool parking spaces, dedicated valet parking spaces, spaces that are user paid, market rate parking or other high-efficiency parking management alternatives may be exempted from maximum parking standards by cities and counties. Sites that are proposed for redevelopment may be allowed to phase in reductions as a local option. Where mixed land uses are proposed, cities and counties shall provide for blended parking rates. It is recommended that cities and counties count adjacent on-street parking spaces, nearby public parking and shared parking toward required parking minimum standards.

C. Cities and counties may use categories or measurement standards other than those in the Regional Parking Ratios Table, but must provide findings that the effect of the local regulations will be substantially the same as the application of the Regional Parking Ratios.

D. Cities and counties shall ~~monitor and~~ provide ~~the following~~ data to Metro on an annual basis:

   ~~1. The number and location of newly developed parking spaces; and~~

   ~~2. Demonstration of~~ that demonstrates compliance with the minimum and maximum parking standards, including the application of any variances to the regional standards in this title. Coordination with Metro collection of other building data should be encouraged.

E. Cities and counties shall provide for the designation of residential parking districts in local comprehensive plans or implementing ordinances.

F. Cities and counties shall amend their comprehensive plans and implementing regulations to require that parking lots more than 3 acres in size provide street-like features along major driveways; including curbs, sidewalks, and street trees or planting strips. Major driveways in new residential and mixed use areas shall meet the connectivity standards for full street connections as described in Section 6.4.5 of the 2000 Regional Transportation Plan.

G. Cities and counties shall amend their comprehensive plans and implementing regulations to incorporate the requirements contained in Section 3.07.220(A)-(E) within one year of adoption of the 2000 Regional Transportation Plan.

TITLE 10: DEFINITIONS

(ggg) "Residential Parking District" is a designation intended to protect residential areas from spillover parking generated by adjacent commercial, employment or mixed use areas, or other uses that generate a high demand for parking.

METRO

Attachment 5

Public Comments Received from May 15 through June 29, 2000

(Provided under separate cover)