600 NE Grand Ave.
Portland, OR 97232-2736

Metro | *Agenda*

Meeting: Transportation Policy Alternatives Committee (TPAC)
Date: Friday, Sept. 23, 2011
Time: 9:30 a.m. to noon
Place: Metro, Council Chamber

9:30 AM	**1.**		**Call to Order and Declaration of a Quorum**	**Tom Kloster, Chair**
9:30 AM	**2.**	*	**Comments from the Chair and Committee Members** • Climate Smart Communities Scenarios update • Reminder Regional Flexible Fund public comment period open until Oct. 13 • State Regional Flexible Fund grant opportunity – Applications due Oct. 20 • TPAC citizen recruitment update	**Tom Kloster, Chair**
9:40 AM	**3.**		**Citizen Communications to TPAC on Non-Agenda Items**	
9:45 AM	**4.**	*	**Consideration of the TPAC Minutes for August 26, 2011**	
9:50 AM	**5.**	*	TriMet's Pedestrian Network Analysis – INFORMATION • *Purpose*: To inform TPAC members of TriMet's initiative to create safer, easier, and more comfortable pedestrian access to transit stops. • *Outcome*: An understanding of the project and how it can be used and integrated into local planning efforts.	**Alan Lehto, TriMet**
10:20 AM	**6.**	*	New ODOT Tolling Policies – INFORMATION • *Purpose*: ODOT is seeking to inform stakeholders of its work on developing Oregon Highway Plan amendments regarding "Tolling and Pricing in Oregon." • *Outcome*: Receive comments on the draft amendments. ODOT is also developing rules, mandated by SB 1022 in 2007, that will describe the processes the Oregon Transportation Commission will follow when considering applications to establish tollways and tolls in Oregon.	**Dave Williams, ODOT** **Robert Maestre, ODOT**

Continued on back…

10:50 AM	**7.**	*	ODOT Least Cost Planning – INFORMATION/ DISCUSSION • *Purpose*: Status report on ODOT's Least Cost Planning work and input on next steps • *Outcome*: TPAC member understanding of Least Cost Planning direction and feedback provided to ODOT staff.	**Robert Maestre, ODOT**
11:20 AM	**8.**	*	Oregon Highway Plan (OHP) and Transportation Planning Rule (TPR) Update – INFORMATION/DISCUSSION • *Purpose*: Status Report on the Oregon Highway Plan (OHP) and Oregon Transportation Planning Rule (TPR) policy updates. • *Outcome*: Prepare TPAC members for the upcoming comment periods and public hearings on proposed changes to the OHP and TPR.	**Michael Rock, ODOT** **Matt Crall, DLCD**
12 PM	**9.**		**ADJOURN**	**Tom Kloster, Chair**

* Material available electronically.
\# Material will be available at the meeting.

For agenda and schedule information, call Kelsey Newell at 503-797-1916, e-mail: kelsey.newell@oregonmetro.gov.
To check on closure or cancellations during inclement weather please call 503-797-1700#.

Future TPAC discussion items:

- MOVES update
- High Speed Rail
- Context sensitive design and least cost planning
- A briefing on the Metro Auditor's *Tracking Transportation Project Outcomes* report
- Congestion Pricing Pilot Study

New Irving Street Garage visitor parking policy

Beginning Friday, Sept. 1, visitor parking will no longer be validated. Click here for a list of parking options for visitors conducting business at the Metro Regional Center:

- Irving Street Garage, 600 NE Grand Ave ($6 daily)
- Lloyd Center Tower, 825 NE Multnomah ($2 hourly; $8 daily)
- Liberty Centre, 650 NE Holladay ($2 hourly; $8 daily)
- Lloyd 700 Building, 700 NE Multnomah ($2 hourly; $8 daily)
- 7th and Holladay ($8 daily)
- 1201 Building, 1201 NE Lloyd ($6 daily)
- Lloyd Doubletree, 1000 NE Multnomah ($8 daily)
- State of Oregon (surface), 800 NE Oregon ($1 hourly; $8 daily)

2011 TPAC Work Program
9/16/11

August 26, 2011 – Regular Meeting • Climate Smart Communities Scenarios - Discussion on Preliminary Results • Approach to Vehicle Electrification RFF Allocation – Discussion and Recommendation to JPACT	**September 23, 2011 – Regular Meeting** • Climate Smart Communities Scenarios - Discussion on Preliminary Results • ODOT Tolling Policies • TriMet's Pedestrian Network Analysis – Information • ODOT Least Cost Planning • Oregon Highway Plan (OHP) and Transportation Planning Rule (TPR) Update
October 28, 2011 – Regular Meeting • Climate Smart Communities Scenarios – Discussion on Findings and Recommendations to be Submitted to 2012 Legislature	**November 18, 2011 – Regular Meeting** • 2012-15 MTIP/STIP Approval and Air Quality Conformity – Recommendation to JPACT • Climate Smart Communities Scenarios – Recommendation to JPACT on Findings and Recommendations to be Submitted to 2012 Legislature • 2014-15 Regional Flexible Fund Allocation – Recommendation to JPACT

Parking Lot:

- MOVES update
- High Speed Rail
- Context sensitive design and least cost planning
- A briefing on the Metro Auditor's *Tracking Transportation Project Outcomes* report
- Congestion Pricing Pilot Study

About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

Stay in touch with news, stories and things to do.

www.oregonmetro.gov/connect

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Region-wide programs

In addition to active transportation and freight projects, the flexible funding program also proposes to pay for a variety of programs that support a comprehensive and efficient approach to transportation services in the region.

These include:

Transit Oriented Development – This program works with cities and real estate developers to help finance buildings that help create vibrant, walkable areas near public transit.

High Capacity Transit – Financing construction of light rail lines and planning the next generation of public transit across the region.

Transportation System Management and Operations (TSMO)/Intelligent Transportation Systems (ITS) – This program helps maximize the efficiency of the existing road system in a variety of ways, including: improving traffic signal timing to reduce travel delays and providing real-time traffic information directly to travelers on cell phones and the web.

Regional Travel Options (RTO) – This program helps reduce congestion, air pollution, and transportation related costs by supporting employers and residents with services to reduce drive-alone motor vehicle trips.

Regional Planning – These funds support Metro's work to meet federal mandates for activities established by Congress.

Corridor and Systems Planning – This program focuses on completing planning level work in corridors that emphasizes the integration of land use and transportation, helping cities prioritize transportation investments.

Metropolitan Mobility Funding Preparedness – These funds would be used to prepare the region to compete for federal and state money to pay for projects that would help ease traffic congestion.

Vehicle Electrification – One time set aside of $500,000 to support the region's transition to electric vehicle transportation.

Tell us how we can we make these projects and programs better!

Three ways to send us your comments:

On the web
www.oregonmetro.gov/flexiblefundcomment

By email
trans@oregonmetro.gov

By mail
Flexible Funding Comments, Planning Department,
Metro,
600 NE Grand Ave. Portland, OR 97232

Regional Flexible Funding

The regional flexible fund allocation is a process run by Metro that occurs every two years. This process involves deciding how to spend federal money designated for the Portland region and used here to fund regional programs and local transportation projects.

This process brings together elected officials, citizens, community leaders and organizations to decide how to spend about $70 million available each two-year cycle.

The end result is a list of projects that reflects local priorities and regional goals.

Types of projects funded this cycle:

Active transportation and complete streets: projects that help people travel without a car by improving transportation for walking, biking and public transit.

Green economy and freight: projects that help support the economy by improving the movement of goods and access to industrial lands.

Region-wide programs: a comprehensive approach to providing transportation related services in the region.

Metro

Shape our community

for the next generation

Our children need a safe way to get to school. Seniors need safe routes to reach the bus and get to services. Local businesses need the support of efficient freight service. Everyone should have an opportunity to get around without being threatened by car traffic.

That's why Metro and cities across the Portland area are proposing 11 new transportation projects – and asking for your ideas for how to make them better. Seven projects aim to make our streets safer for people who depend on the bus, walking or biking. Four would make it easier for large trucks to pass – speeding goods to businesses while making the road safer for everyone.

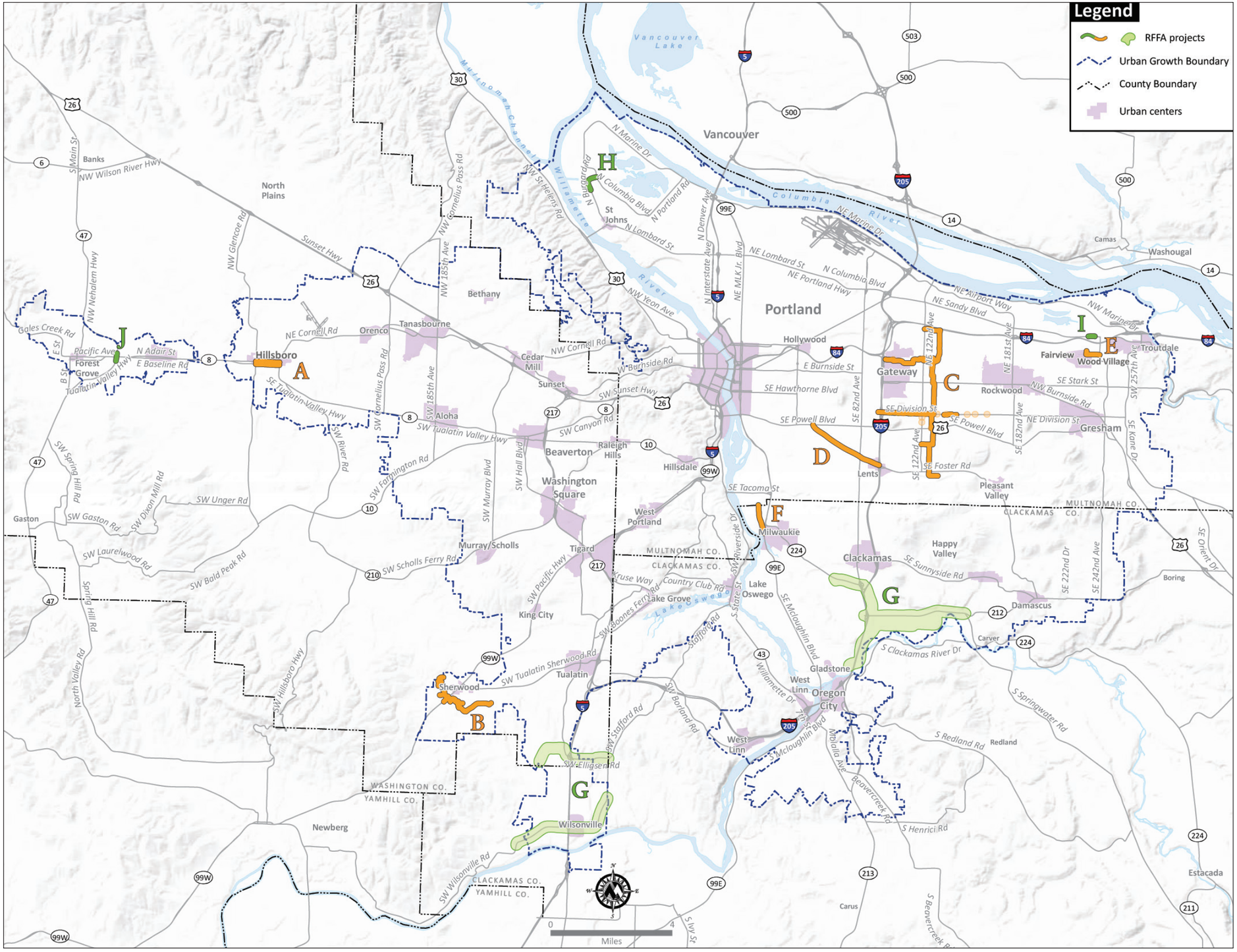
Let us know what you think of these projects, and how they could be improved to serve your community. Learn more about the projects and post your comments online: **www.oregonmetro.gov/flexiblefundcomment**

Comments are due by October 13

Your Comments	December	2013-14
Now through Oct. 13	Metro and local agencies approve with conditions from public input	Work starts

Local transportation projects

www.oregonmetro.gov/flexiblefundcomment



Active Transportation and Complete Streets projects

A. Hillsboro Regional Center: Oak and Baseline - Funds to develop a project that will enhance safety by providing traffic calming features, reducing vehicle speeds, and improving pedestrian and bicycle access

B. Sherwood - West Fork of the Tonquin Trail-Cedar Creek Greenway Trail - Provides a major multi-modal travel corridor within Sherwood, connecting sections of the city currently separated and without adequate pedestrian connections

C. East Portland Active Transportation to Transit Project - Transit, bicycling and walking improvements in East Portland, including development of a bikeway network that connects to light rail and improves the pedestrian-transit connection

D. Portland - SE Foster Road Safety Enhancement and Streetscape Project (50th-84th) - Design and construct pedestrian and bicycle improvements along Foster Road, focusing on crossing safety and access to transit

E. Wood Village - Arata Road Improvements - Improves pedestrian and bike safety along Arata Road with the addition of sidewalks, lighting, and landscaping

F. Milwaukie - 17th Avenue Multi-use Trail - Links two significant regional trails; the Trolley Trail and the Springwater Corridor, completing a key link in the regional bike/pedestrian system

Portland Bike Share (not mappable) – Project goal is to attract Portlanders to bicycling, increase the number of bicycling trips, and reduce single occupancy vehicle trips by providing bikes for public use throughout the central city and other select locations

Green Economy and Freight projects

G. Clackamas County Regional Freight ITS Project - Improves the reliability of the regional freight system by reducing freight vehicle delay in congested areas through intelligent transportation system improvements

H. Portland - North Burgard-Lombard ("Around the Horn") Improves freight mobility, safety, and industrial land access along a freight route in an industrial district

I. Wood Village/Fairview - Sandy Blvd. Improvements: 230th - 238th Drive - Addresses the substandard road conditions on NE Sandy Blvd. that affect existing freight access to industrial lands in the area

J. Forest Grove - Hwy 8/47 Intersection Improvements - Reduces freight vehicle delay by addressing a bottleneck at an intersection of two freight routes and improves pedestrian safety by adding a pedestrian crossing where none exist

Regional Over-dimensional Truck Route Plan (not mappable) - Will identify the most commonly used and the preferred routes of over-dimensional vehicles and prioritize projects to facilitate their safe movement

Regional Freight/Passenger Rail Investment Strategy (not mappable) - This strategy will test the feasibility of concepts to increase movement of freight by rail, identify the rail mode, function and general location of scenarios considered, and develop a priority list of projects to improve freight and inter-city rail passenger service

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TRANSPORTATION POLICY ALTERNATIVES COMMITTEE
August 26, 2011
Metro Regional Center, Room 370A-B

MEMBERS PRESENT	AFFILIATION
Karen Buehrig	Clackamas County
Mara Gross	Citizen
Heidi Guenin	Citizen
John Hoefs	C-TRAN
Katherine Kelly	City of Gresham, Representing Cities of Multnomah Co.
Scott King	Port of Portland
Nancy Kraushaar	City of Oregon City, Representing Cities of Clackamas Co.
Alan Lehto	TriMet
Mike McKillip	City of Tualatin, Representing Cities of Washington Co.
Dave Nordberg	Oregon Department of Environmental Quality
Satvinder Sandhu	FHWA
Charlie Stephens	Citizen
Rian Windsheimer	Oregon Department of Transportation
Jenny Weinstein	Citizen
Tracy Ann Whalen	Citizen
Sharon Zimmerman	Washington State Department of Transportation

MEMBERS EXCUSED	AFFILIATION
Chris Beanes	Citizen
Dean Lookingbill	Southwest Washington Regional Transportation Committee
Karen Schilling	Multnomah County
Paul Smith	City of Portland

ALTERNATES PRESENT	AFFILIATION
Andy Back	Washington County
Lynda David	Southwest Washington Regional Transportation Committee
John Gillam	City of Portland
Kathryn Williams	Port of Portland

STAFF: Aaron Brown, Andy Cotugno, Kim Ellis, Ted Leybold, John Mermin, Joshua Naramore, Kelsey Newell, Amy Rose, Randy Tucker

1. CALL TO ORDER AND DECLARATION OF A QUORUM

Chair Tom Kloster called the meeting to order and declared a quorum at 9:34 a.m.

2. COMMENTS FROM THE CHAIR AND COMMITTEE MEMBERS

Chair Tom Kloster introduced John Mermin of Metro, who notified the committee that the Transportation System Plan (TSP) workshop has been resecheduled for the afternoon of Monday, October 17.

3. CITIZEN COMMUNICATIONS TO TPAC ON NON-AGENDA ITEMS

There was none.

4. CONSIDERATION OF THE TPAC MINUTES FOR JUNE 24, 2011

Ms. Karen Buehrig requested to amend the minutes to mark her as absent at the previous meeting.

MOTION: Ms. Tracy Ann Whalen moved, Mr. Alan Lehto seconded, to approve the TPAC minutes for June 29, 2011 as amended.

ACTION TAKEN: With all in favor, the motion passed.

5.0 Approach to Vehicle Electrification Regional Flexible Fund Allocation – RECOMMENDATION TO JPACT REQUESTED

Mr. Ted Leybold of Metro and John MacArthur of Oregon Transportation Research and Education Consortium (OTREC) gave a presentation to update the committee on the Vehicle Electrification study group. The Joint Policy Advisory Committee on Transportation (JPACT) asked TPAC in July to provide direction on how to spend the Regional Flexible Fund Allocation to best support Vehicle Electrification efforts in the region, and Mr. Leybold and Mr. MacArthur detailed the four proposed uses of these funds. These options included:

- Market Research and/or a Public Education Campaign. The subcommittee noted that there is misconception and about electrified vehicles among the general public and that educating the public might be the best use of these limited funds.
- Last Mile Support. This option calls for investment in a demonstration project in which electric vehicles are used to shuttle passengers on trips between transit center sand employment/commercial centers.
- Workplace and Multifamily Charging. This option would invest in charging facilities near workplaces and multifamily complexes.
- Construction of charging facilities near Highways within metro area. This option would build on the efforts of the Oregon Department of Transportation (ODOT)'s Transportation Investment Generating Economic Recovery II (TIGER II) grant to build charging facilities along the interstate corridor.

These funds will be available in Oct 2013, to be used during the 2014-2015 allocation period. Committee discussion included a suggestion to study the City of Portland's Sustainable Freight Program and the limited impact that $500,000 would have on the purchase of an actual fleet of electric vehicles. Metro staff hopes to have these documents out for public comment and anticipates TPAC formally recommending one option to JPACT at the November 11 TPAC meeting. Mr. Leybold's slideshow presentation is included in the packet.

MOTION: Mr. Lehto moved, Mr. Dave Norderg seconded, to recommend to JPACT to release these four potential vehicle electrification fund options to the public for comment.

ACTION TAKEN: With all in favor, the motion passed.

6.0 Metropolitan Transportation Improvement Program (MTIP) Amendments: State Enhancements Project Awards, Carman Drive Ramp Project – RECOMMENDATION TO JPACT REQUESTED

Mr. Leybold presented to the committee two amendments to the Metropolitan Transportation Investment Program (MTIP) program. The first project, outlined in Resolution 11-4287, would restripe an interchange on Interstate 5 at Carman Avenue near Tigard. The second MTIP amendment (Resolution 11-4286) includes three sidewalk projects located respectively in Beaverton, outer southeast and outer northeast Portland. TPAC members noted the discrepancy in costs listed on the MTIP documents and those listed on documents provided by the Oregon Transportation Commission (OTC); Mr. RianWindsheimer noted that the OTC numbers did not include the matching federal funds, and that the project should use the OTC's projected estimates of $1.55 million cited in the Resolution's staff report. TPAC members noted that future MTIP resolutions funding sidewalks should be more detailed about the specifics of sidewalks, such as the width, surface, and possible separation from the road, and requested that the schematics for the Carman Drive project be printed in color when provided to JPACT for ease of comprehension.

MOTION: Mr. Windshiemer moved, and Mr. Mike McKillip seconded, to recommend both MTIP amendments to JPACT, provide the committee with a copy of Resolution 11-4287 in color, and include the numbers from OTC.

ACTION TAKEN: With all in favor, the motion passed.

7.0 Climate Smart Communities Scenarios: Project Status and Release of Strategy Toolbox Report – DISCUSSION

Kim Ellis of Metro provided an update to TPAC of the Climate Smart Communities Scenarios project. Metro staff is moving forward with the scenarios analysis and have produced a draft of the Strategy Toolbox Report, which reviews the range of potential policy tools available to meet statewide goals for reducing greenhouse gas emissions as required by House Bill 2001. Ms. Ellis spoke towards how collaboration between JPACT, MPAC and other participants at the April 1

Climate Leadership Summit influenced the document, and that she will be bringing an updated copy of the Strategy Toolbox Report to the policy committees in the fall. Committee discussion included:

- Ms. Whalen raised concerns that the language in the document relies too heavily on disincentives to reduce driving. TPAC members suggested focusing more of the document's language on the incentives for livable communities inherent in these policy tools and less on the disincentives, or "big sticks," considered in the document.
- Concerns about if and how marginalized populations will be disproportionately impacted by Climate Smart Communities-related policies. TPAC members discussed how the potential changes in urban form proposed by Climate Smart Communities-based policies could create different benefits and burdens to different populations around the region.
- Comments about the specifics of how health impacts are related to climate smart communities. Ms. Heidi Guenin noted that many of the links between specific health outcomes (such as asthma, cancer, cardiovascular disease) and specific urban forms and policy outcomes cannot be necessarily assumed to be linked without fully vetting the explicit assumptions made in the document.
- The value of having Metro and other regional staff studying this issue. TPAC members noted that it was encouraging to see the region discuss climate change related policies when the discussion at the national level has largely subsided.
- Ms. Mara Gross mentions that the upcoming Regional Equity Summit, hosted by nonprofit Coalition for a Livable Future on September 14, will have breakout sessions addressing many of the issues brought up in this discussion.

Ms. Ellis asked that any further discussion or questions be sent to her by September 13, and that she is hoping to have preliminary quantitative results from the Scenarios Planning process this September. She will be sharing these findings with the TPAC/MTAC work group before bringing forward to TPAC, MTAC, MPAC and JPACT in the fall.

8.0 Application of Criteria to Review Candidate TIGER III Applications – INFORMATION / DISCUSSION

Andy Cotugno of Metro addressed the committee regarding the regional application for TIGER III grants. Concerned with an uncertain future for federal transportation funding, JPACT formed a subcommittee focused on studying and discussing finance options for funding regional transportation issues. Mr. Cotugno noted that the process of securing federal funds appears to have shifted from acquiring federal earmarks toward the successful application of competitive grant processes, and that both Metro and the region need to determine how to be more competitive in this environment of limited federal resources. The region has received TIGER grants in the past, and many regional jurisdictions are currently planning on applying for funds from TIGER 3, the upcoming solicitation that is currently accepting applications for projects. The JPACT subcommittee on finance has noted that limiting the number of regional TIGER applications and submitting a few, highly qualified projects may increase the region's chances of acquiring these federal grants. Mr. Cotugno provided TPAC staff with the criteria the federal government uses in evaluating TIGER grants, asked the committee for any additional criteria the region should use when prioritizing TIGER applications, and queried further as to if TPAC

members believed a committee could be appointed in the future to evaluate regional applications. Committee discussion included:

- A general consensus that the current standards used by the TIGER grant process were already complicated and rigorous, and that Metro nor the region needed to evaluate individual projects with additional qualifications beyond those demanded by the rigorous application process.
- A discussion about the applications for TIGER funds currently expected from the region's jurisdictions. Discussed projects seeking funding included Multnomah County's Sellwood Bridge, a Multiuse path near the Sunrise Corridor, the Hillsdale-Olson intersection in Beaverton, and the Brookwood/US 26 interchange in Hillsboro.
- General consensus that a regional screen of the projects may help strengthen the quality of submitted applications. TPAC members noted that additional review of applications will help ensure the projects are thorough in addressing the multifaceted demands of TIGER grants. TPAC members expressed concern about having elected officials or interested parties serving on this committee, noting their conflict of interest in promoting projects in their districts over others, and Metro staff responded with the suggestion proposed by the JPACT subcommittee that this regional screening subcommittee could be comprised solely of TPAC citizen members.
- The potential for this committee to use categories (e.g., "meets requirements") instead of numerically ranking evaluated TIGER III applications; this could help alleviate the concerns of political pressure in assessing each project's merits.

9. ADJOURN

TPAC members asked to schedule a discussion of the Brookings Institute's Metropolitan Export Initiative report, which studies Los Angeles, Portland, Minneapolis, and Syracuse.

Chair Kloster adjourned the meeting at 11:40 p.m.

Respectfully submitted,

Aaron Brown
Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR AUGUST 26, 2011
The following have been included as part of the official public record:

ITEM	DOCUMENT TYPE	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
2.0	Memo	08/24/11	To: TPAC and MPAC From: John Mermin Re: Upcoming Transportation System Plan (TSP) Guidance activities	82611-t01
5.0	Slideshow		Presentation on Electric Vehicles	82611-02
6.0	Resolution	09/2011	UPDATED Resolution 11-4287	82611-t03
6.0	Resolution	09/2011	UPDATED Resolution 11-4286	82611-t04
7.0	Report	08/2011	Climate Smart Communities: Scenario Project Strategy Toolbox Report	82611-t05
7.0	Factsheet	08/2011	Climate Smart Communities Factsheet	82611-t06
8.0	Memo	08/25/11	To: JPACT From: Andy Cotugno Re: TIGER 3 Applications	82611-t07
9.0	Press Release	08/17/11	US Transportation Secretary Ray LaHood Announces $19.4 Million in Grants for Oregon Highway Projects	82611-t08
9.0	Report	08/26/11	From NEI to MEI: About the Metropolitan Export Initiative	82611-t09

Transit depends on safe and convenient pedestrian access

Every transit rider is a pedestrian. Whether walking or using a mobility device, all TriMet customers depend on being able to get to and from a stop safely and comfortably. Providing safe, convenient and attractive sidewalks, pedestrian crossings and transit stops is imperative to ensuring riders have a positive experience. As a result, TriMet and its regional partners are working collaboratively as part of the Pedestrian Network Analysis Project to develop an objective, data-driven system for prioritizing places around the region where pedestrian infrastructure investments will provide safer and more comfortable access to transit. This effort is designed to:

Wide sidewalks facilitate a safer pedestrian environment by creating a buffer from auto traffic and enhancing sightlines.

- **Prioritize safety:** Arterials are the most suitable type of roadway for transit service and often the only choice. There are usually many destinations along arterials and the roads are designed to handle large vehicles, like buses. However, from a pedestrian perspective arterials can be difficult to cross and uncomfortable, or even dangerous to walk along. This is particularly true when there are missing sidewalks, unprotected crossings, or very little buffer provided between fast moving traffic and pedestrians. This study first and foremost examines how to improve pedestrian safety.

- **Cost-effectively provide service:** It costs an average of $29 per ride to provide LIFT paratransit service to people who are unable to use more cost effective bus or rail service due to a lack of pedestrian access. Investments in sidewalks, protected crossings, traffic-calming and streetscaping are long-term fiscally prudent investments that help people maintain their independence by being able to access fixed route transit even as their mobility lessens over the years.

- **Foster environmental stewardship:** Improving access to transit enables people to meet more of their needs without driving and helps the region reduce its greenhouse gas emissions.

- **Create great places: People like to walk.** Creating engaging, easy, desirable places where people want to walk helps communities stay vibrant and attract private investment.

This Line 52-Farmington/185th bus stop is in project focus area No. 1. It lacks sidewalks, a buffer from 40 mph traffic and a direct protected crossing.

Benefits of a more pedestrian accessible transit system

An accessible transit system has many benefits:

- **Keeping people healthy:** The U.S. Centers for Disease Control and Prevention recommends adults get 30 minutes of moderate-intensity activity five days a week, such as walking. The median amount of time public transit users walk is 19 minutes.
- **Saving families money:** Transportation costs are often the second biggest expense in a family's budget. According to the American Automobile Association (AAA), the average annual cost of owning a car in 2010 was $9,520. By comparison, a TriMet annual Adult All-Zone Pass costs $968, just over 10 percent of the cost of owning a car.
- **Maintaining independence:** Public transportation provides travel options to people who do not want to, cannot afford to, or are unable to drive, like the very young and very old.

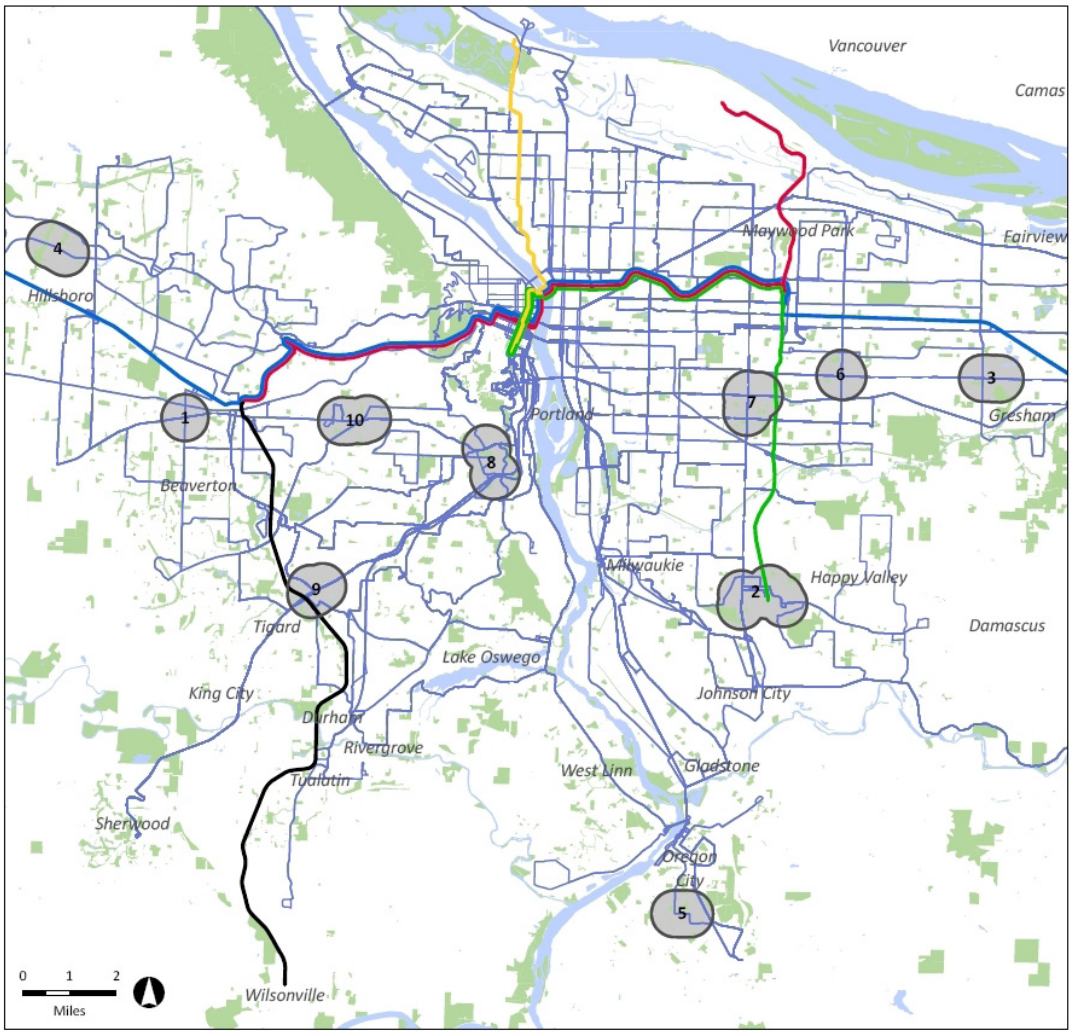
The Pedestrian Network Analysis Project

The Pedestrian Network Analysis Project identifies key locations within the Portland region where pedestrian investments will provide improved access to transit stops and have the strongest potential to improve pedestrian safety, both actual and perceived, and increase the number of people walking and using transit.

TriMet has more than 7,000 stops. Using Geographic Information Systems (GIS) data TriMet and its jurisdictional partners located areas near transit stops that exhibited the highest amount of opportunity and need. Sixty-six clusters of stops, encompassing roughly 600 stops were identified as high need/high opportunity areas. From these clusters, TriMet and its partners chose 10 key focus areas to place attention first*:

1	City of Beaverton	SW Farmington Rd. & Murray Blvd.
2	Clackamas County	Clackamas Town Center
3	City of Gresham	SE Division St & 182nd Ave.
4	City of Hillsboro	Cornell Rd. – Tanasbourne Area
5	City of Oregon City	Warner Milne Rd. – Red Soils Campus
6	City of Portland	SE Division & 122nd Ave.
7	City of Portland	SE Powell & 82nd Ave.
8	City of Portland	SW Bertha Blvd – Hillsdale Area
9	City of Tigard	Tigard WES Station
10	Washington County	Beaverton-Hillsdale Hwy & Scholls Ferry Rd.

*Numbers indicate location on map, and do not indicate project prioritization.



Pedestrian Access Network Project focus areas. Numbers correspond to the table on previous page.

Next steps

TriMet staff will walk each area, document existing conditions, and assess pedestrian needs near transit stops. The Pedestrian Network Analysis Project is expected to be complete by July 1, 2011.

After July, TriMet will continue to work with its partners to move pedestrian investments forward in the 10 focus areas and to generally promote ways communities can help make areas near transit stops safer, more convenient and more pleasant to walk.

Before and after photos show the bus stop and pedestrian improvements that were made outside a major grocery store on Highway 8 in Hillsboro.

More information

Jessica Tump
TriMet Project Planning
Capital Projects
503-962-2137 or tumpj@trimet.org

Available in other formats:

trimet.org
503-238-7433
TTY 503-238-5811

Favor de llamar al 503-238-7433 si necesita ésta información en español.

Technical Advisory Committee

April Bertelsen, City of Portland
Christina Fera-Thomas, City of Hillsboro
Judith Gray, City of Tigard
Katherine Kelly, City of Gresham
Nancy Kraushaar, City of Oregon City
Lori Mastrantonio-Meuser, Clackamas County
Jane McFarland, Multnomah County
Lake McTighe, Metro
Margaret Middleton, City of Beaverton
Lidwien Rahman, Oregon Depart. of Transportation
Amy Rose, Metro
Stephanie Routh, Willamette Pedestrian Coalition
Steve White, Oregon Public Health Institute
Aisha Willits, Washington County

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Pedestrian Network Analysis

A safer, easier, more comfortable walk to transit

OHP Goal 6: Tolling and Congestion Pricing

Overview

Oregon's citizens have become accustomed to funding roads through fuel taxes and vehicle fees. While citizens may not like paying fuel taxes and vehicle fees, they generally understand how these mechanisms work, and have built their traveling behavior on the basis of this system. The system also implies that roads are seen as a "public good"; that is, roads are accessible to any citizen at any time and the cost of developing, operating and maintaining the system is borne by the population as a whole.

In Oregon, tolls have been limited to a few Columbia River bridges. The rationale for tolling bridges has been that they are extraordinarily expensive, vehicles have limited alternatives and tolls can be collected at one location.

Around the world, including the United States, tolling is seeing a resurgence. There are two main drivers: 1) bridges and highways are increasingly expensive to build with limited public appetite for tax increases; and 2) modern electronic tolling technology allows creative new tolling applications that not only raise money, but potentially enhance transportation system performance. Commensurate with this renewed interest, the Oregon Department of Transportation (ODOT) has undertaken a variety of tolling and congestion pricing studies supportive of the policies and strategies below.

The rapid and continuing improvement in tolling and in-vehicle navigation technology also has resulted in making the consideration of tolling in many cases a much more complex undertaking. First, there are now a variety of different policy objectives beyond the traditional financing of construction of a new road or bridge. Tolling can now be used to relieve congestion, improve the environment or enhance economic development. In fact, the number of possible objectives can be quite large, and in some cases, but not all, can be mutually reinforcing. Second, the number of different ways tolls can be applied also has expanded considerably. In addition to the new road or bridge, individual lanes, new or existing, can be priced in various ways to encourage certain behavior. Time-of-day (congestion) pricing can be applied to certain portions of an urban area or to select parts of the highway system. Finally, it is not always possible to separate tolling applied to new capacity,

new facilities, and existing capacity. For instance, there may be situations where existing capacity will need to be tolled to help pay for new capacity in the same corridor, or situations where new facilities provide new capacity while also replacing existing capacity.

The large number of possible combinations of policy objectives and tolling applications raises the question of whether, or how well, particular applications can achieve particular objectives. The answer is that the effectiveness of applications to objectives varies considerably, requiring each combination to be considered in itself. Further, for every tolling application there will be winners and losers. The winners may consider the toll a bargain, or at least feel indifferent between paying the toll and saving time. Those made worse off, either directly or indirectly, are likely to view tolling as an expensive or less affordable alternative to new capacity funded through higher taxes or fees. Even those made better off, however, may question tolling as the most appropriate or legitimate solution.

The indeterminate outcome of any application coupled with Oregon's very limited experience with tolling, implies that any proposed use of tolling of the state highway system should be preceded by a thorough analysis of likely effects and public acceptance. Oregon Revised Statutes, Chapter 383 grants the Oregon Transportation Commission authority over toll rates, and ODOT authority over tolling on state highways. Additional interstate bridge authority is granted to ODOT by Chapter 381. Therefore, the Oregon Transportation Commission considers it necessary to provide policy guidance for developing, evaluating and implementing tollway projects in Oregon in a manner consistent with Oregon statutes as well as existing Commission policies and the *Oregon Transportation Plan*.

Policy 6.1 – New Toll Facilities

Background

Most new highway capacity in the United States is not financed with toll revenues. Many projects are ill suited to tolling due to low traffic volumes, traffic diversion impacts or inadequate revenue generation. As one example, Truck–only toll lanes (TOT lanes) have little utility in Oregon because the state already allows longer-combination vehicles; hence the ability to improve productivity is limited. In addition, limited urban right-of-way, high

construction costs, environmental concerns and insufficient demand appear to ensure limited utility for TOT lanes even in urban areas.

Other projects seem very well suited to toll financing, and nationally the number of toll roads has increased significantly in recent years. Each project will have its own unique circumstances.

ODOT has well-established procedures within the Statewide Transportation Improvement Program (STIP) process for developing and funding projects. The Oregon Transportation Commission has managed this process in a manner intended to provide public assurance that once a project is undertaken, it will move forward in an appropriate way. The fact traffic volumes dictate few, if any, projects can be funded solely with toll receipts introduces the issue of how ODOT should financially manage projects that have the potential to be partially funded with toll receipts.

Policy 6.1 – New Toll Facilities

It is the policy of the State of Oregon to consider the use of tolling for financing the construction of new roads, bridges or dedicated lanes only if expected toll receipts will pay for an acceptable portion of project costs.

Action 6.1.1

Tolling projects providing new capacity need to be in compliance with other State policies and regional and local plans.

Action 6.1.2

In order to reflect the potential negative effects of traffic diverting around tolled facilities, project proposers will perform a benefit-cost analysis in a manner prescribed by ODOT[1] on all proposed toll projects to demonstrate overall societal benefits.

[1] Currently see, *Benefit-Cost Assessment Guidance for Evaluating Proposed Highway Tolling and Pricing Options for Oregon (March 2010)* http://www.oregon.gov/ODOT/TD/TP/docs/LRPU/Benefit.pdf.

Action 6.1.3

ODOT will only consider those toll projects ranked "high" under tolling parameters considered by ODOT.[2]

Action 6.1.4
Toll projects requesting statewide funds to supplement toll receipts must prepare and submit to ODOT a formal financing plan that includes debt service, operational, maintenance, and preservation expenses.[3]

Action 6.1.5

Proposed "premium service" high occupancy/toll (HOT) lanes must be expressly compared to high occupancy vehicle (HOV) lane(s) and "multi-class," general purpose alternatives to ensure the overall best use of the limited additional capacity.

Policy 6.2 – Pricing Existing Capacity

Background

Applying tolls to existing roadways is likely to be viewed differently by the public than using tolls to finance new capacity. Our current financing system essentially treats roadways as "public goods." Congested roadways, however, do not meet the classic definition of public goods as one person's use can preclude or significantly limit the use by others at the same time. In addition, under many circumstances it is possible to charge for the use of roadways. This reality, experienced in many urban areas, has driven the renewed interest in congestion pricing of existing roadways.

Several problems have been seen to impede the application of time-of-day tolls, despite the efficiency benefits cited in economic theory. One, the public seems to prefer the existing approach, with the notable exception of pricing existing HOV lanes which has seen considerable success in a number

[2] Currently see, Table 4 in *Tolling White Paper #2 – Geographic and Situational Limits* (2009). http://www.oregon.gov/ODOT/TD/TP/docs/LRPU/twp2.pdf

[3] This is a separate requirement from the Federal requirement to have an annual financial plan for projects of over $100 million.

of locales. A few major cities (London, Singapore, Stockholm) have successfully priced access to their cores. Most cities, however, have not opted to do the same. The reasons for this are varied and not well covered by existing research. Therefore, consideration of road pricing in Oregon cities will warrant careful study of both the effects – positive and negative –, consistency with other statutes and policies, and public reaction.

Policy 6.2 – Pricing Existing Capacity

It is the policy of the State of Oregon to consider the use of tolls, including time-of-day pricing, on existing, non-tolled state highways consistent with other Oregon Transportation Commission policies, state law, and federal statutes and planning regulations.

Action 6.2.1

A project that tolls the existing capacity of a previously non-tolled state highway must be included in relevant local and regional land use and transportation plans.

Action 6.2.2

The proposer of any tolling or pricing project is required to have a clear statement of public policy objectives against which the effectiveness of the proposal can be measured.

Action 6.2.3

The proposer of any tolling or pricing project is required to compare the proposal to a null, non-tolled alternative to ensure the effects of introducing tolls can be clearly demonstrated.

Action 6.2.4

The economic, social and environmental effects of any proposed tolling or pricing project will be analyzed by ODOT according to analytical procedures adopted by ODOT.[4]

[4] Currently see, *Economic Assessment of Tolling Schemes for Congestion Reduction (March 2010)* http://www.oregon.gov/ODOT/TD/TP/docs/LRPU/Economic.pdf and *Benefit-Cost Assessment Guidance*

Action 6.2.5

The equity of any tolling or pricing proposal, particularly upon the transportation disadvantaged, will be examined by ODOT and will comply with federal statutes, rules and guidance.

Policy 6.3 – Consistent and Supportive Policy Objectives

Background

Roadway tolls may be levied for a variety of public policy objectives. The relative importance or degree of public acceptance of these objectives may vary in different locales and parts of the state. Similarly, a pricing program for a given purpose in one locale inadvertently may have undue negative effects on other parts of the state.

In addition, some potential policy objectives require tolls so high that facility throughput is reduced. This may be inconsistent with state statute.

It is unclear which policy objectives will be deemed the most important in future tolling or pricing proposals. It is clear, however, that attention may have to be given to the need for a degree of statewide consistency in policy objectives advanced through pricing proposals, as per Goal 7 of the Oregon Transportation Plan.

Policy 6.3 – Consistent and Supportive Policy Objectives

It is the policy of the State of Oregon to ensure motorists and its citizens have clear, consistent and coordinated objectives for any future highway tolling or pricing proposals, reflective of primary public concerns with the performance of the state highway system.

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for Evaluating Proposed Highway Tolling and Pricing Options for Oregon (March 2010) http://www.oregon.gov/ODOT/TD/TP/docs/LRPU/Benefit.pdf.

Action 6.3.1

Project proposers will review and document that their roadway tolling or pricing proposals are consistent with other tolling and congestion pricing policies, state and federal statutes and policies, and other tollway projects within the state.

Action 6.3.2

ODOT will analyze the likely transportation, economic, social, energy and environmental effects of any tolling or pricing project on parts of the state outside of the project area.

Action 6.3.3

ODOT will analyze the expected change, if implemented, in vehicle throughput due to any tolling or pricing proposal to ensure consistency with ORS 366.215.

Action 6.3.4

ODOT region staff and local government agencies shall work together to evaluate public understanding of and support for the principle likely objectives for road tolling and pricing applications.

Policy 6.4 – Toll Revenues

Background

The appropriate use of toll generated revenues may be dependent upon a number of factors. These include: a) the type of tolling application under consideration; b) the objective(s) for the application; c) the geographic scope of the application; d) the relative importance of the “user pays” principle; e) public attitudes on transportation system needs; and f) how best to off-set any negative effects of levying tolls. The most appropriate use of toll revenues for any given application may be constrained by federal and state statutes or procedures.

Policy 6.4 – Toll Revenues

The effectiveness, equity and overall utility of tolling projects can be affected by how net toll receipts are used. Multiple approaches to using revenue may need to be considered. It is the policy of the State of Oregon to treat the use of toll-generated revenue as an important evaluative component of any tolling proposal.

Action 6.4.1

For any proposed tolling or pricing project on a state highway, the project proposer will consider a range of potential uses for toll generated revenue, conditional upon the policy objective for the application, and ODOT will incorporate the resultant investments into the economic, social, energy and environmental analysis undertaken for the proposed project.

Action 6.4.2

ODOT region staff and local government agencies shall work together to assess public attitudes toward proposed toll revenue usage for any tolling or pricing project on a state highway as a means of meeting public needs.

Policy 6.5 — Tolling Technology and Systems

Background

The trend in the United States is for state-owned tolling systems to offer electronic toll collection in addition to toll booth cash collection. In contrast, modern toll facilities in other parts of the world now operate as all-electronic systems with no cash payment option at entry to the facilities. Potential toll payers without transponders or bank accounts, or who seek privacy, have options for electronic payment derived from cash payment at another location. Typically, a motorist can obtain a day pass at roadside kiosks or retail stores.

Most state-owned toll facilities in the United States that allow electronic toll collections operate as closed proprietary systems that are not interoperable with each other. As a result, state-owned toll facilities become bound to one provider and limited to the capabilities of that provider. Motorists using toll facilities in multiple states may have more than one transponder for

compliance. An alternative is to develop an integrated system based on common standards and an operating sub-system accessible by the marketplace where components performing the same function can be readily substituted or provided by multiple providers.

Policy 6.5 — Tolling Technology and Systems

When tolling state highways, it is the policy of the state of Oregon to implement tolling systems that:

(1) Enable cash-based motorists ready access to all-electronic toll facilities while eliminating the need for cash payment at the point of entry;
(2) Deploy technology that facilitates interoperability with tolling systems of neighboring states and allows evolution of fully functional, non-proprietary tolling systems.

Action 6.5.1

For any proposed tolling or pricing project on a state highway, ODOT shall develop tolling systems that rely on all-electronic collection mechanisms, and enable at least one manner of toll collection that allows a readily accessible electronic payment method for cash customers.

Action 6.5.2

For any proposed tolling or pricing project on a state highway, ODOT will develop applicable tolling technologies and systems that are based on common standards and an operating sub-system accessible by the marketplace where components performing the same function can be readily substituted or provided by multiple providers.

We would add the phrase from the draft tolling policies into OTP Goal 2, Capacity and Operational Efficiency, as a new strategy:

> "Consider the use of toll revenue, including time-of-day pricing revenue, from existing state highways in a manner consistent with other Oregon Transportation Commission policies, state law, and federal statutes and planning regulations."

We would add this phrase from the draft tolling policies into OTP Goal 6, Funding Structure, as a new strategy:

> “Consider the use of tolling for financing the construction of new roads, bridges or dedicated lanes only if expected toll receipts will pay for an acceptable portion of project costs.”

Oregon Department of Transportation

SUMMER 2011

Update on Oregon's Least Cost Planning Project

NEXT GENERATION PLANNING TOOL

In Oregon, we've always focused on the underlying issues and tradeoffs in transportation decision making and planning. We use a number of planning tools and decision processes, including multi-modal tradeoff analysis, modeling, scenario planning, and cost/benefit analysis. However, making sound, long-term policy and resource allocation decisions has become increasingly challenging as needs have grown, funding has diminished, and a wider variety of modes and desired societal outcomes have become factors to consider.

In 2009, the Oregon state legislature defined least cost planning for Oregon and directed the Oregon Department of Transportation (ODOT) to develop such a process (Oregon Revised Statutes 184.653):

> *"Least cost planning means a process for comparing direct and indirect costs of demand and supply options to meet transportation goals, policies or both, where the intent of the process is to identify the most cost-effective mix of options. The Department of Transportation shall, in consultation with local governments and metropolitan planning organizations, develop a least-cost planning model for use as a decision-making tool in the development of plans and projects at both the state and regional level."*

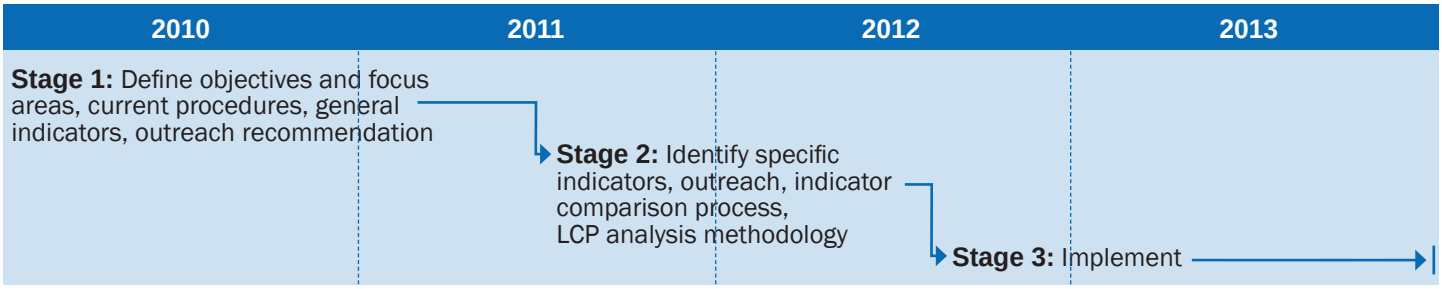
ODOT's least cost planning (LCP) effort is an attempt to improve our ability to measure the true costs and benefits of transportation plans, strategies, and actions. In doing so, it will increase transparency and the diversity of information considered in transportation decision making in our state. More importantly, it will help provide a more accurate assessment of potential benefits relative to costs and impacts.

Drawn from research and best practices from around the world, least cost planning will provide a method to evaluate impacts of transportation decisions. Livability, safety, equity, economic vitality, and environmental stewardship will be evaluated side-by-side with traditional considerations such as capital costs. Least cost planning will make it easier for state and regional agencies and governments across the state to incorporate these important considerations into transportation planning and decision making and help identify the most cost-effective, long-term mix of actions.

Developing the Method

Stakeholders are guiding development of Oregon's least cost planning tool. The **Statewide Transportation Improvement Program (STIP) Stakeholder Committee (SSC)** and a **Working Group** are both central participants with ODOT and the Oregon Transportation Commission (OTC) in the development process. The STIP Stakeholder Committee is a policy group representing the freight industry, public transit, ports, the Federal Highway Administration, state agencies, local government, metropolitan planning organizations, and private business. This committee has been helping to establish the guiding principles for least cost planning and define what it should accomplish. They've also provided guidance to the project team and the OTC on key questions that will shape least cost planning. The OTC is a governor-appointed body that establishes state transportation policy and guides the planning, development, and management of a statewide integrated transportation network.

LEAST COST PLANNING Development Timeline



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The Working Group is made up of agency and metropolitan planning organizations staff whose expertise is required for project success. It includes technical resource experts in transportation planning, sustainability, transit, freight, intelligent transportation systems, and modeling. This group has worked closely with the project team and the SSC to develop a list of indicators to be considered in least cost planning. These indicators will evaluate progress in each category of transportation system performance.

Establishing the Right Parameters

To develop a least cost planning tool, the stakeholders and project team needed to first establish a framework by navigating a series of questions such as those listed below. The answers, consensus-based conclusions of the SSC, help ensure the method accurately reflects Oregon's goals for least cost planning.

1. **Should Oregon's LCP tool initially be "project based" or "plan based" (portfolios of actions)?** **Answer:** *Oregon's LCP should focus first on portfolios of actions so that LCP can look first at a broad level to find a range of possible options.*
2. **What kinds of impacts should LCP evaluate or, specifically, what transportation system performance categories should be included?** **Answer:** *see sidebar on Categories of Transportation System Performance.*
3. **Should Oregon's LCP evaluations be expressed only in monetary terms?** **Answer:** *Oregon's LCP should consider monetary, quantitative, and qualitative indicators to effectively evaluate information for all the categories.*

In addition to the above, the SSC has provided guidance in areas such as how LCP should discount costs and benefits that occur well into the future, how to incorporate various demand management options (including pricing), and how LCP should address risk and uncertainty.

The stakeholders and project team have now determined LCP's general framework and are keeping in mind how best to weave LCP into existing decision processes and use existing data and tools.

This initial stage of development provides a practical starting point for this first iteration of least cost planning. While the participants have been careful to focus on practical first steps, the possibilities for broader applications and enhanced future iterations abound! Case study research indicates that least cost planning is a robust decision making method that, for example, could also be applied to project development or local planning efforts.

The public is welcome to participate and comment throughout the process by accessing the project website (*www.oregon.gov/ODOT/TD/TP/LCP.shtml*) and attending SSC and other meetings, including meetings of Area Commissions on Transportation. (See *www.oregon.gov/ODOT/COMM/act_main.shtml* for ACT information.)

CATEGORIES OF TRANSPORTATION SYSTEM PERFORMANCE


Mobility


Accessibility


Economic Vitality


Environmental Stewardship


Safety and Security


Funding the Transportation System/Finance


Land Use and Growth Management


Quality of Life and Livability


Equity

What's Next

During the next stage of LCP development, the stakeholders and project team will develop the specific measures and comparison methods that will move indirect impacts onto the same page as traditional costs and benefits. The products of this next phase of work will be a beta version of the least cost planning tool and a guidebook for how to apply LCP at a state, regional, and corridor level.

TO FIND OUT MORE

please visit

http://www.oregon.gov/ODOT/TD/TP/LCP.shtml

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Oregon Department of Transportation

Least Cost Planning
Progress Report to 2011 Oregon Legislature

January 2011

Oregon Department of Transportation

Least Cost Planning
Progress Report to 2011 Oregon Legislature

Executive Summary

In 2009, the Oregon Legislature passed the Jobs and Transportation Act (JTA). Sections 6 and 7 of the bill direct the Oregon Department of Transportation (ODOT) to develop a least cost planning model and report back on progress made to the Seventy-sixth Legislative Assembly. This directive contained the following (Oregon Revised Statutes 184.653):

> (1) As used in this section, "least-cost planning" means a process of comparing direct and indirect costs of demand and supply options to meet transportation goals, policies or both, where the intent of the process is to identify the most cost-effective mix of options.
>
> (2) The Department of Transportation shall, in consultation with local governments and metropolitan planning organizations, develop a least-cost planning model for use as a decision-making tool in the development of plans and projects at both the state and regional level.

The steps ODOT has taken to respond to this directive are described in this report. First, ODOT identified a stakeholder committee with wide representation of transportation interests including local governments and metropolitan planning organizations to advise and assist ODOT with the development of a least cost planning methodology. (Because the term "model" has a specific meaning at ODOT, especially referring to travel demand models, ODOT uses the term "methodology" for least cost planning.) The identified committee is the existing Statewide Transportation Improvement Program (STIP) Stakeholder Committee (SSC). In addition, ODOT intends to consult other transportation stakeholder and advisory groups and offer opportunities for public comment. ODOT has established a project website where interested parties can review OLCP development information as it becomes available and send comments to staff via email.

Second, ODOT asked this committee to work on the next edition of the Statewide Transportation Improvement Program (STIP) project criteria for several of ODOT's major programs. Section 17 of the bill describes ten considerations for ODOT to use when developing STIP criteria. These ten considerations seemed quite related to what OLCP will try to achieve when that process is implemented. Consequently, the SSC was asked to help ODOT examine the existing criteria and the ten new considerations and design new criteria for the upcoming STIP that would start to point the way towards OLCP in the future. The new STIP criteria for the 2012-2015 STIP were approved by the Oregon Transportation Commission (OTC) at their May 2010 meeting.

Third, ODOT released a Request for Information in the fall of 2009 to gather ideas from the consultant community on what a least cost planning development process may entail and what a least cost planning methodology might look like. These helped ODOT think ahead to how its OLCP process should be structured and how the results might be incorporated into the agency's activities.

Fourth, ODOT contracted with a consultant team to develop a least cost planning discussion paper that reviews recent least cost planning efforts by other transportation agencies. This paper describes least cost planning principles and attributes common to other least cost planning efforts and describes in detail four varied case studies of other transportation agencies' least cost planning methodologies and their use, results, and lessons learned. This discussion paper was completed in the summer of 2010 and its findings were presented to the SSC and the OTC.

Fifth, ODOT used the information developed in the activities above to contract for consultant assistance with its OLCP development process. The SSC has held six meetings focused on OLCP and has begun to make essential decisions for OLCP, including adopting an OLCP workplan and choosing to focus first on an OLCP designed to enable analysis of effects for a portfolio of possible transportation investments and actions and to further develop it for individual investments later on.

Several important principles for OLCP were identified from the discussion paper research and are helping shape development of the methodology. These include: multiple goals can be compared, a broad range of solutions can be evaluated, stakeholders are engaged in the decision process, and the process can be a useful basis to aid decision-making. ODOT, with committee assistance, intends to develop an OCLP methodology in accordance with these principles that improves its planning and project development procedures, makes decisions more transparent and accountable, and helps ensure that ODOT makes the best use of public funds.

Oregon Department of Transportation

Least Cost Planning
Progress Report to 2011 Oregon Legislature

Introduction

In 2009, the Oregon State Legislature directed the Oregon Department of Transportation (ODOT) to develop a least cost planning methodology to identify the most cost-effective mix of transportation options. ODOT is in the process of developing this methodology with the input of local governments and other transportation stakeholders. The methodology will allow for a more thorough evaluation of the costs and benefits of different possible investments to address problems on the transportation system and a more robust and transparent analysis of possible impacts of different transportation solutions.

ODOT has taken several initial steps to learn more about least cost planning and how it has been implemented or developed since the mid 1990s and begun work to develop an Oregon least cost planning (OLCP) methodology. ODOT has:

- Recruited its widely representative Statewide Transportation Improvement Program (STIP) Stakeholder Committee (SSC) to serve as a project steering committee.
- Worked with the SSC to revise the STIP Project Eligibility Criteria and Prioritization Factors for 2012-2015 STIP to reflect the ten new considerations for STIP criteria. These considerations were listed in the same legislation that directed the least cost planning project and reflect priorities such as efficiency, safety, and environment that OLCP should address as well. The new 2012-2015 STIP criteria begin readying the agency's project selection process to reflect or help implement the OLCP methodology.
- Released a Request for Information to gather ideas from the consultant community about how OLCP might be developed and what it might include.
- Prepared a discussion paper so that the agency and its stakeholders could learn from other transportation agencies' efforts to implement processes similar to least cost planning as defined for Oregon.
- Contracted with consultants experienced with least cost planning or similar efforts to help ODOT and its stakeholders develop an OLCP methodology.

ODOT is working closely with the SSC to answer fundamental framework questions that will shape how OLCP develops. The Committee has adopted a workplan that presents a series of questions in a stepwise process that will allow for continuous development of an OLCP methodology. ODOT has invited key staff of the agency and metropolitan planning organizations to participate in a technical committee to ensure the resulting OLCP can be integrated with current procedures and utilize available information and analysis tools. ODOT will also provide other transportation stakeholders and the general public opportunities for comment and participation in the OLCP development process.

STIP Stakeholder Committee

ODOT has asked the SSC to serve as the project steering committee for OLCP development because of the broad range of transportation interests represented and its long history of successfully working out a shared position on transportation investment decision criteria. The SSC was first established in 2001 to help ODOT find ways to make the STIP development process more transparent and enable wider participation in that process and has met periodically ever since. The SSC has been a successful advisory committee for ODOT and the Oregon Transportation Commission (OTC).

The STIP is ODOT's list of transportation investments to be made during a four-year period. The STIP is developed in accordance with federal rules and regulations and is updated every two years. Major STIP programs, in terms of total cost, include modernization (capacity enhancement), preservation, and state bridge. For these programs and for projects still in development, the SSC develops recommended selection criteria for each STIP update cycle and the OTC approves the final criteria to be used.

SSC accomplishments include:

- Providing recommendations for making the STIP development process more transparent and accessible to stakeholders.
- Drafting the OTC Policy on Formation and Operation of the ACTs to clarify the roles and responsibilities of the ACTs and their participation in the STIP development process.
- Providing the OTC recommended criteria for modernization, preservation, and bridge projects starting with the first Oregon Transportation Investment Act (OTIA I), and then building on these for each of the following STIPs since, beginning in 2004-2007 to the 2012-2015 criteria just completed.

The use of the selection criteria has become well accepted and expected by the ACTs and other stakeholders as it helps both staff and stakeholders understand what is expected for projects selected for funding. The SSC sends a draft of recommend STIP selection criteria for review and comment by the ACTs and other stakeholders before the SSC finalizes its recommended draft and forwards it to the OTC for approval. After approval, the ACTs and similar bodies use the criteria to assist the ODOT Region staff with prioritization of projects, especially for the modernization program.

The SSC currently has 20 members representing a wide range of transportation interests. Members represent freight interests, American Automobile Association of Oregon, business, public transit, Area Commissions on Transportation (ACTs), Metropolitan Planning Organizations (MPOs), cities, counties, other state agencies, and the Federal Highway Administration. ODOT also invited a few new members to join in order to include representatives that may be able to contribute specifically to OLCP development. New members include a representative of Portland General Electric and the Oregon Global Warming Commission.

STIP Project Criteria

STIP Project Eligibility Criteria and Prioritization Factors (STIP criteria) are updated every two years as the STIP update cycle begins, and were needed as work was scheduled to begin on the 2012-2015 STIP

in 2010. Developing a new STIP takes a little over two years from determining funding available and criteria to be used through stakeholder participation to refine lists of possible projects, air quality conformity, and final approval by the Federal Highway and Federal Transit Administrations. The 2012-2015 STIP criteria were approved by the OTC in May 2010.

ODOT asked the SSC to work first on the STIP criteria because of the relationship of the new STIP considerations and the future use of least cost planning. The ten considerations were included as part of instructions to the OTC in the JTA. They direct the agency to consider investments that relieve congestion, improve operations, safety and efficiency, preserve prior investments and reduce the need for additional highway projects, address the needs of freight and the economy, improve livability and promote environmental stewardship including reduction of greenhouse gas emissions.

The ten considerations reflect the purpose of OLCP to compare "direct and indirect costs of demand and supply options to meet transportation goals, policies or both, where the intent of the process is to identify the most cost-effective mix of options" (ORS 184.653) in a transportation decision-making process. They reflect multiple goals that transportation must help address and call for efficiency in transportation investments. The considerations also reflect various current needs that transportation decision-making must address, and OLCP must address, as a transportation decision-making tool.

The SSC was tasked with helping ODOT revise its existing criteria to better reflect the ten considerations and begin to reflect OLCP. The 2012-2015 STIP criteria represent a first step toward a least cost planning perspective.

Request for Least Cost Planning Information

ODOT issued a Request for Information (RFI) regarding least cost planning methodologies and development processes in late 2009. The RFI enabled ODOT to ask the consultant community for the thoughts and ideas to help inform the agency as it started to plan for developing OLCP. The agency wanted to solicit ideas from other agencies and consultants that have worked with similar processes and use these experiences to shape the workplan for developing an Oregon least cost planning methodology.

ODOT quickly learned that there would be no one way to conduct OLCP. There were many ways for ODOT to develop OLCP to meet the definition given and the agency's goals though it would likely be built up from a benefit-cost comparison basis to include both direct and indirect benefits and costs and reflect multiple goals and policies. ODOT determined that there would be further need to research different applications of least cost planning.

Least Cost Planning Discussion Paper

Early in 2010, ODOT contracted with a consultant team to develop a discussion paper on least cost planning. Several papers had been written on least cost planning for transportation in the early and middle 1990s, but literature was not available on least cost planning between those papers and today. This discussion paper was to focus on what has been learned from other transportation agencies' efforts to implement least cost planning or a similar evaluation process (very few use the least cost planning term) since those early papers were written. The consultants identified common least cost planning

principles and attributes from the many different least cost planning-type efforts they found and described in detail four case studies.

The discussion paper's objectives were to:

- Provide an overview of the history and applications of least cost planning for transportation.
- Describe and compare different conceptions and applications of least cost planning.
- Discuss the strengths and weaknesses of various applications through case studies and lessons learned.
- Provide a foundation for ODOT and the SSC to continue discussions of OLCP development.

A major finding of discussion paper research was that there are many efforts around the world to implement a process similar to that defined by JTA for OLCP. Examples were found at the regional, state, and national level throughout the states from Washington State to Virginia and abroad from the Netherlands to New Zealand.

From the research, seven common principles of least cost planning were identified and applied to the Oregon context:

1) The approach has been used for transportation planning.

2) The range of Oregon-specific transportation policy goals and objectives can be addressed.

3) The methodology can be applied at the project-specific level, and the collective (multi-project) level.
4) Members of the community and decision makers are engaged in the planning and decision-making process.
5) The evaluation framework rolls up multiple goals.
6) A broad range of possible multi-modal capacity, demand-management, land-use, maintenance, and other planning options can be considered.
7) The approach facilitates the adoption of a meaningful, relevant and operationally useful basis for choice.

Six common technical attributes of least cost planning were identified:

1) Costs and benefits are measured in terms that facilitate the comparison of planning options (such as monetary-equivalent units).
2) The approach makes use of quantitative and qualitative evidence.
3) Impacts on the non-users of planning options and projects are estimated.
4) Indirect effects, such as changes in local employment and land use, are accounted for.
5) Interactions ("synergies") between planning options are considered.
6) The approach explicitly accounts for risk and uncertainty in forecasts and cost and benefit calculations.

Four case studies using least cost planning concepts were selected for further consideration. They are well-documented transportation examples and employ key principles and attributes that are important to Oregon. They are diverse in scale (national, statewide, and regional) and content (program and project applications). The case studies chosen were Puget Sound Regional Council's Transportation 2040 Plan, the United Kingdom Department for Transport's New Approach to Appraisal – Refresh, Indianapolis' Central Indiana Transportation Plan, and Virginia DOT's VTrans 2035 plan.

Several common findings were observed throughout the research for the discussion paper and the case studies. For example, there are many different methods to use to accomplish the principles of least cost planning. Also, none of the various methods accomplish all the principles of least cost planning perfectly; each demonstrates a number of strengths and weaknesses. Oregon will have to select or adapt one or more methods to best fit its needs. Further common findings:

- Least cost planning has helped agencies and stakeholders make more transparent and informed decisions.
- Transportation applications have developed in response to each agency's unique mission, mandate, and goals.
- Least cost planning has been applied at both project and system levels.
- Least cost planning applications use a benefit-cost framework.
- Stakeholders have helped improve the tools and the process.
- Both energy and transportation sectors focus successfully on demand management.
- Both have incorporated environmental costs in innovative ways.
- Both have successfully engaged the public.
- Applications have improved over time.

The discussion paper has proved valuable as it provides a survey of methods, accomplishments, strengths, and weaknesses from other transportation agencies' efforts to develop and implement a least cost planning methodology. The discussion paper findings were presented in detail to the SSC in two parts so that the committee and ODOT could consider how the findings may apply to the OLCP effort and make decisions with the benefit with others' experience in similar efforts. The paper was also presented to the OTC for their consideration.

OLCP Development Workplan

ODOT, with concurrence from the SSC, has divided the OLCP development project into three stages. First is deciding what categories of transportation performance the first OLCP methodology will evaluate and determining how the new methodology might be integrated with ODOT's current procedures. Second is developing the specific measures to be used and the methodology for using them. The third stage is implementing the new OLCP methodology.

Work has begun on the first stage of OLCP development, this is expected to take approximately nine months and be complete in the summer of 2011. A consultant team has been contracted for assistance throughout the project. With their help, ODOT has developed a workplan for the project overall and for the SSC to cover during the first stage of OLCP development. Since later stages will depend on information discovered and decisions made in the first stage, the detailed workplans for stages 2 and 3 will be developed as those stages are begun. In addition, throughout the OLCP development process, ODOT will work to ensure that the resulting OLCP methodology works in concert with the products of related efforts such as greenhouse gas reduction planning.

SSC Workplan

SSC work on an OLCP methodology began in earnest at the October 2010 meeting. At that meeting the overall timelines for the project and stage 1 were discussed along with the various tasks planned and

what the members thought might constitute success of the project and questions OLCP should answer. These discussions and information from prior SSC discussions and the least cost planning discussion paper were used to develop the SSC workplan for stage 1 of OLCP development.

The first decisions to shape OLCP were made at the SSC's November 2010 meeting. A workplan was adopted that lays out a series of decisions to be made along a schedule for the next several SSC meetings. These decisions are designed to shape OLCP in a stepwise manner and allow the consultants and the technical working group to continuously progress with their work between SSC meetings. The decisions move from more general to more specific as an OLCP methodology starts to take shape.

A primary decision the SSC was asked to make was whether OLCP should focus first at the transportation plan or project level. Plan level means OLCP is used to evaluate the impacts of multiple possible transportation investments not limited by mode (e.g. highway, transit) or by type of investment (demand management vs. supply or capacity construction). Project level means that OLCP is used to evaluate specific investments individually.

The committee agreed that OLCP would first focus at the plan level so different options to meet various needs in an area could be evaluated together to determine the best investment options. This was an important starting decision because while OLCP general principles would be similar at either the plan or project level, the specific methods may differ. OLCP will not necessarily be limited to one or the other of these choices, but developed to work for the plan level first and later improved to include analysis options that will work for individual project evaluation.

ODOT Workplan

As the SSC completes its stage 1 workplan, ODOT and the consultants are working on other tasks to ensure that OLCP is developed in a way that can be readily incorporated in the agency's activities and ensure that ODOT's partners, stakeholders, and the public have opportunities to participate.

One of ODOT's first tasks is to report on current agency procedures for planning and project development to identify where OLCP can be integrated and improve the current process. In January, staff was interviewed to more fully understand those parts of the agency whose work will likely be impacted by this new methodology. Next, a technical work group including both ODOT and staff from Metropolitan Planning Organizations (MPOs) was established to assist in the technical development of the OLCP methodology.

Additional tasks will be to conduct ongoing outreach within the agency and to include its partners such as MPOs, ACTs, and other agencies, and allow for public comment as the work progresses. Project summaries designed to update interested parties will be produced throughout the project to describe the project in general and decisions made to date. The current project summary is included as Appendix A to this report. The OLCP methodology development project has a page on ODOT's website (http://www.oregon.gov/ODOT/TD/TP/LCP.shtml) where interested parties can follow project information and contact staff via email. In addition, ODOT will ensure other opportunities for public participation or comment throughout the project.

Next Steps

The OLCP project is designed overall to move from broad and general to specific. Stage 1 will establish the parameters for the first OLCP methodology and describe how OLCP might integrate with and improve ODOT's current planning and project development procedures. During stage 1, decisions will develop the essential shape of OLCP such as what categories of performance OLCP will evaluate and what kinds of indicators are used to evaluate those categories of performance.

The second stage of OLCP development will determine the specific indicators or methods for measuring performance within the categories and procedures for comparing any indicators that are not measured in dollars. Stage 2 will arrange these individual methods in an overall OLCP framework and will implement the outreach plan developed during the first stage.

The third stage of OLCP will be implementation of the new methodology. This will likely include further outreach, training of staff, and implementing a monitoring program to be able to track how the OLCP methodology is working and what needs further improvement or refinement.

Conclusion

ODOT is actively working to develop a least cost planning methodology. The agency has conducted research to develop further information to help it formulate a workplan for developing the least cost planning process for transportation decision-making that is called for in the JTA. It has established a widely representative stakeholder committee to serve as the project steering committee to ensure the development of a methodology that is as widely understood and supported as possible. The first steps of the OLCP development process have begun with the help of the STIP Stakeholder Committee and consultant advisors.

ODOT recognizes that the initial OLCP methodology will be improved with time and use. The least cost planning discussion paper case studies demonstrate that least cost planning is a process that needs continuous improvement as new things are learned, new priorities for evaluation arise, and new data and analysis tools become available. Throughout the project, staff and consultants will identify and monitor barriers to more a successful or robust OLCP as well as opportunities for future improvements that are not possible to incorporate in the initial OLCP methodology. This will produce a list of possible things to address in future improvements of OLCP.

ODOT and its stakeholders recognize the ability of OLCP to improve transportation decision-making to ensure more transparent and accountable decisions. Decisions made with OLCP can be documented more fully than is currently possible and can more fully take into account the multiple policies and goals that today's transportation investments must meet. ODOT will continue to develop the OLCP methodology as described in this report. The agency looks forward to implementing the methodology to strengthen and improve its decision-making and ensure the best use of public funds to meet various transportation goals and policies such as those described in the Oregon Transportation Plan.

Appendices

A. OLCP Project Update Flier

Oregon Department of Transportation

Update on Oregon's Least Cost Planning Project

NEXT GENERATION PLANNING TOOL

EXPLORING LEAST COST PLANNING FOR TRANSPORTATION

In an effort to more fully quantify—and therefore identify—the most cost-effective investments, the Oregon legislature provided direction to the Oregon Department of Transportation (ODOT) to develop a least cost planning (LCP) tool for transportation decision making. According to Section 6 of House Bill 2001, least cost planning is:

> *"a process of comparing direct and indirect costs of demand and supply options to meet transportation goals, policies or both, where the intent of the process is to identify the most cost-effective mix of options. The Department of Transportation shall, in consultation with local governments and metropolitan planning organizations, develop a least-cost planning model for use as a decision-making tool in the development of plans and projects at both the state and regional level."*

The utility industry has used least cost planning to identify the least expensive options for providing sufficient electricity to customers. In that industry, LCP considers a wide variety of demand management options—from peak period pricing to discounting energy-efficient light bulbs. Because of this success, many have urged that the LCP process be adapted for use in the transportation industry. However, the supply, demand, costs, and benefits for transportation services and facilities are more diverse and complex than for electricity. Oregon's approach to LCP will reflect these distinctions.

To understand the issues fully, ODOT conducted a survey of agencies that have applied LCP to transportation projects in the United States and around the world. The lessons learned about the opportunities, constraints, and successes of those efforts provide the foundation for the next step, development of an LCP evaluation tool. The results of the survey are summarized in a paper, "The History and Application of LCP for Transportation from the Mid-1990s" (July 2010), available for download on the ODOT Least Cost Planning Website (http://www.oregon.gov/ODOT/TD/TP/LCP.shtml).

The focus now has shifted to developing the LCP methodology to be used to help make decisions in Oregon. Though primarily developed for ODOT, this tool may be used by metropolitan planning organizations (MPOs) and other regional bodies and local governments.

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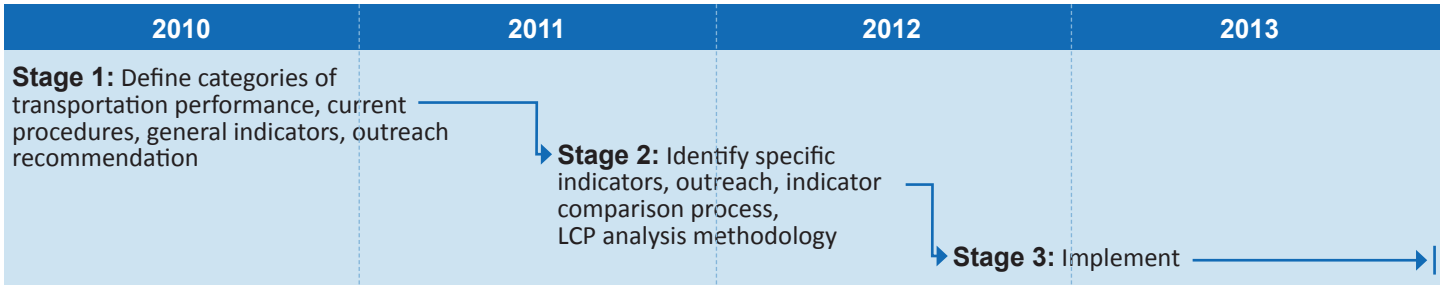
LCP TOOL Development Timeline



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WHAT'S HAPPENING NOW?

Work on the first stage of developing the Oregon Least Cost Planning (OLCP) methodology is underway, with plans to deliver a working LCP tool in 2013. To fully support the contributions and needs of the diverse set of stakeholder interests, ODOT will solicit stakeholder input at each step in the process. Over the coming year, the Oregon LCP process will address these key questions:

- Should Oregon's LCP initially be "project based" or "plan based" (portfolios of projects)?
- What specific environmental, economic, and social transportation system performance measures should be included?
- Which, if any, categories of performance should be expressed in monetary terms, which in other quantitative (numeric) terms, and which in qualitative terms?
- How should demand management options be selected and defined? Demand management includes a wide variety of regulatory, technology, and pricing techniques.
- How can OLCP acknowledge the uncertainties inherent in forecasting and measuring costs and benefits? A variety of techniques (sensitivity analysis, scenario analysis) can be used.

The expected outcome of Stage 1 is a structure for LCP that addresses these questions, explains the proposed uses of OLCP, identifies immediate transportation system performance categories, and defines the scope of what will (and will not) be addressed.

WHO IS INVOLVED?

ODOT Transportation Development Division (ODOT TDD) will oversee project development, including management of the technical work and development of recommendations to take to stakeholder and policy-making bodies. ODOT staff are working with a wide range of agencies and stakeholders during Stage 1 of LCP development:

- **STIP Stakeholder Committee (SSC).** This group of approximately 20 people includes representatives from freight, public transit, ports, the Federal Highway Administration, state agency, local government, MPO, and private business. This group was established to provide input to ODOT and the OTC on the development of STIP criteria and LCP. The SSC serves as the project steering committee. ODOT will meet regularly with the SSC to help ensure proposed objectives represent a diverse array of interests.
- **Oregon Transportation Commission (OTC).** The OTC ultimately will provide guidance to ODOT regarding the direction and timing of LCP development. Briefings are planned with the OTC at key milestones throughout project development.
- **Working Group.** The Working Group will consist of transportation agency staff whose expertise is required for successful development and implementation of OLCP. It includes representatives from divisions within ODOT and within the MPOs. Divisions within ODOT represented in this group include the Transportation Planning and Analysis Unit (TPAU), major projects staff, environmental, and region staff.

The public is welcome to participate and comment throughout the process by accessing the project website (see address in the blue box) and attending SSC and other meetings, including meetings of their Area Commission on Transportation (see http://www.oregon.gov/ODOT/COMM/act_main.shtml for ACT information).

TO FIND OUT MORE

For more information, visit the ODOT TDD LCP website at:

http://www.oregon.gov/ODOT/TD/TP/LCP.shtml

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1999 OREGON HIGHWAY PLAN

HIGHWAY MOBILITY POLICY

Background

The Highway Mobility Policy establishes state highway mobility targets that implement the objectives of the Oregon Transportation Plan (OTP) and other OHP policies. The policy does not rely on a single approach to determine transportation needs necessary to maintain acceptable and reliable levels of mobility on the state highway system. It offers the flexibility to consider and develop methodologies to measure mobility that are reflective of current and anticipated land use, transportation and economic conditions of the state and in a community.

While ODOT measures vehicular highway mobility performance through volume to capacity (v/c) ratios (see Tables 6 and 7) when making initial determinations of facility needs necessary to maintain acceptable and reliable levels of mobility on the state highway system, achieving v/c targets will not necessarily be the determinant of the transportation solution(s). Policy 1F recognizes and emphasizes opportunities for developing alternative mobility targets (including measures that are not v/c-based) that provide a more effective tool to identify transportation needs and solutions and better balance state and local community needs and objectives.

Several policies in the Highway Plan establish general mobility objectives and approaches for maintaining mobility.

- Policy 1A (State Highway Classification System) describes in general the functions and objectives for several categories of state highways. Greater mobility is expected on Interstate and Statewide Highways than on Regional and District Highways.

- Policy 1B (Land Use and Transportation) has an objective of coordinating land use and transportation decisions to maintain the mobility of the highway system. The policy identifies several land use types and describes in general the levels of mobility objectives appropriate for each.

- Policy 1C (State Highway Freight System) has an objective of maintaining efficient through movement on major truck Freight Routes. The policy identifies the highways that are Freight Routes.

- Policy 1G (Major Improvements) has the purpose of maintaining highway performance and improving highway safety by improving system efficiency and management before adding capacity.

Although each of these policies addresses mobility, none provide measures by which to describe and understand levels of mobility and evaluate what levels are acceptable for the various classifications of state highway facilities.

The Highway Mobility Policy identifies how the State measures mobility and establishes targets that are reasonable and consistent with the direction of the OTP and Highway Plan policies. This policy carries out Policies 1A and 1C by establishing mobility targets for Interstate Highways, Freight Routes and other Statewide Highways that reflect the expectation that these facilities maintain a level of mobility to safely and efficiently support statewide economic development while balancing available financial resources. It carries out Policy 1B by acknowledging that lower vehicular mobility in Special Transportation Areas (STAs) and highly developed urban areas is the expectation and assigns a mobility target that accepts a higher level of congestion in these situations. The targets set for Regional and District Highways in STAs and highly urbanized areas allow for lower vehicular mobility to better balance other objectives, including a multimodal system. In these areas traffic congestion will regularly reach levels where peak hour traffic flow is highly unstable and greater traffic congestion will occur. In order to better support state and local economic activity, targets for Freight Routes are set to provide for less congestion than would be acceptable for other state highways. Interstate Highways and Expressways are incompatible with slower traffic and higher level of vehicular congestion and therefore, STA designations will not be applied to these highway classifications. For Interstate and Expressway facilities it will be important to manage congestion to support regional and state economic development goals.

The mobility targets are contained in Tables 6 and 7 and in Action 1F.1. Tables 6 and 7 refer only to vehicle mobility on the state highway system. At the same time, it is recognized that other transportation modes and regional and local planning objectives need to be considered and balanced when evaluating performance, operation and improvements to the state highway system. Implementation of the Highway Mobility Policy will require state, regional and local agencies to assess mobility targets and balance actions within the context of multiple technical and policy objectives. While the mobility targets are important tools for assessing the transportation condition of the system, mobility is only one of a number of objectives that will be considered when developing transportation solutions.

The highway mobility targets are used in three distinct ways:

- Transportation System Planning: Mobility targets identify state highway mobility performance expectations and provide a measure by which the existing and future performance of the highway system can be evaluated. Plan development may necessitate adopting methodologies and targets that deviate from adopted mobility targets in order to balance regional and local performance expectations.

- Plan Amendments and Development Review: Mobility targets are used to review amendments to comprehensive plans and land use regulations pursuant to the

Transportation Planning Rule (TPR) to assess if the proposed changes are consistent with the planned function, capacity and performance standards of state highway facilities.

- Operations: Mobility targets assist in making traffic operations decisions such as managing access and traffic control systems to maintain acceptable highway performance.

The Highway Mobility Policy applies primarily to transportation and land use planning decisions. By defining targeted levels of highway system mobility, the policy provides direction for identifying (vehicular) highway system deficiencies. The policy does not, however, determine what actions should be taken to address the deficiencies.

Mobility in the policy is measured using a volume to capacity ratio or v/c. This policy also provides opportunities to seek OTC approval for alternative mobility targets that are not v/c-based.

It is also important to note that regardless of the performance measure, v/c or other, the Highway Mobility Policy recognizes the importance of considering the performance of other modes of travel. While the policy does not prescribe mobility targets for other modes of travel, it does allow and encourage ODOT and local jurisdictions to consider mobility broadly – through multimodal measures or within the context of regional or local land use objectives. Providing for better multimodal operations is a legitimate justification for developing alternatives to established OHP mobility targets.

The Highway Mobility Policy will affect land use decisions through the requirements of the TPR. The TPR requires that regional and local transportation system plans (TSP) be consistent with plans adopted by the OTC. The TPR also requires that local governments ensure that comprehensive plan amendments, zone changes and amendments to land use regulations that significantly affect a transportation facility are consistent with the identified function, capacity and performance of the affected state facility. The Highway Mobility Policy establishes ODOT's mobility targets for state highways as the standards for determining compliance with the TPR (OAR 660-012-0060).

Policy 1F does not apply to highway design. Separate design mobility standards are contained in ODOT's Highway Design Manual (HDM). While HDM design standards and OHP mobility targets in Policy 1F may not be the same, ODOT's intention is to continue to balance statewide mobility and economic development objectives with community mobility, livability and economic development objectives through coordination between planning and design. Where the OTC adopts alternative mobility targets in accordance with this policy, they are establishing an agreement with the local jurisdiction to manage and develop the state system to the expected and planned levels of performance, consistent with the jurisdiction's underlying planning objectives (as set out in local comprehensive plan policy and land use regulations). However, coordination on exceptions to design mobility standards may still be required.

ODOT's intention is that the mobility targets be used to identify system mobility deficiencies over the course of a reasonable planning horizon. The planning horizon shall be:

- At least 20 years for the development of state, regional and local transportation plans, including ODOT's corridor plans; and

- The greater of 15 years or the planning horizon of the applicable local and regional transportation system plans for amendments to transportation plans, comprehensive plans or land use regulations.

ODOT measures vehicular highway mobility performance through v/c ratios. The v/c ratio was selected after an extensive analysis of highway performance measures prior to adoption of the 1999 Highway Plan. The review included the effectiveness of the measure to achieving other highway plan policies (particularly OHP Policy 1B, Land Use and Transportation), implications for growth patterns, how specifically should ODOT policy integrate with land use, flexibility for modifying targets, and the effects of Portland metro area targets on the major state highways in the region. V/C based measures were chosen for reasons of application consistency and flexibility, manageable data requirements, forecasting accuracy, and the ability to aggregate into area-wide targets that are fairly easy to understand and specify. In addition, since v/c is responsive to changes in demand as well as in capacity, it reflects the results of demand management, land use and multimodal policies. However, it is recognized that there are limitations in applying v/c, especially in highly congested conditions and in a multimodal environment. OHP policies allow options for other measures, or combinations of measures, to be considered.

Mobility targets are a measure by which the state assesses the functionality of a facility and are used, along with consideration of other policy objectives, to plan for system improvements. These mobility targets are shown in Table 6 and vary, depending on the category of highway, the location of the facility – within a STA, MPO, UGB, unincorporated community or rural lands – and the posted speed of the facility. Table 6 also reflects Policy 1B (Land Use and Transportation) and the State's commitment to support increased density and development activities in urban areas. Through higher v/c ratios and the adoption of alternative mobility targets, the State acknowledges that it is appropriate and anticipated that certain areas will have more traffic congestion because of the land use pattern that a region or local jurisdiction has committed to through adopted local policy.

Separate mobility targets for the Portland metropolitan area have been included in the policy (Table 7). These targets have been adopted with an understanding of the unique context and policy choices that have been made by local governments in that area including:

- A regional plan that links land use and transportation decisions and investments to support land uses in urban centers and corridors and supports multi-modal transportation options;

- Implementation of Transportation System Management and Operations (TSMO) strategies, including freeway ramp meters, real time traffic monitoring and incident response to maintain adequate traffic flow; and

- An air quality attainment/maintenance plan that relies heavily on reducing auto trips through land use changes and increases in transit service.

The Portland Metro targets have been adopted specifically for the Portland metropolitan area with a mutual understanding that these mobility targets better reflect the congestion that already exists within the constraints of the metro area's transportation system and which will not be alleviated by state highway improvements. The targets contained in Table 7 are meant for interim use only. The OTC expects the Portland Metro area to work with ODOT to explore a variety of measures to assess mobility and to develop alternative targets that best reflect the multiple transportation, land use and economic objectives of the region.

The mobility targets included in the Highway Mobility Policy must be used for the initial deficiency analysis of state highways. However, where it can be shown that it is infeasible or impractical to meet the targets, local governments may work with ODOT to consider and evaluate alternatives to the mobility targets in Tables 6 and 7. Any variance from the targets in Tables 6 and 7 will require OTC adoption. Increasingly, urban and urbanizing areas are facing traffic and land use pressures due to population growth, aging infrastructure, and reduced revenues for roadway and related infrastructure projects. In response to state funding constraints and the need to balance multiple objectives, system management solutions and enhancement of alternative modes of travel, rather than major highway improvements, are increasingly relied upon to address congestion issues. Developing mobility targets that are tailored to specific facility needs, consistent with local expectations, values and land use context will need to be part of the solution for some highway locations. Furthermore, certain urban areas may need area-specific targets to better balance state and local policies pertaining to land use and economic development. Examples where conditions may not match state mobility targets include metropolitan areas, STAs, areas with high seasonal traffic, and areas constrained by the existing built or natural environment.

Alternatives to the mobility targets and methodologies in the tables must be adopted through an amendment to the OHP. The OTC must adopt the new targets supported by findings that explain and justify the supporting methodology.

Policy 1F is not the only transportation policy that influences how the state assesses the adequacy of a highway facility and vehicle mobility is not the only objective. Facilitating state, regional and local economic development, enhancing livability for Oregon's communities, and encouraging multiple modes are also important policy areas that guide

state transportation investment and planning. Policy 1B recognizes that the state will coordinate land use and transportation decisions to efficiently use public infrastructure investments to enhance economic competitiveness, livability and other objectives. Economic viability considerations help define when to make major transportation investments (Policy 1G). Goal 4, Travel Alternatives, articulates the state's goal to maintain a well-coordinated and integrated multimodal system that accommodates efficient inter-modal connections for people and freight and promotes appropriate multi-modal choices. Making decisions about the appropriate level of mobility for any given part of the statewide highway system must be balanced by these, and other relevant OTP and OHP policies.

Policy 1F: Highway Mobility Policy

It is the policy of the State of Oregon to maintain acceptable and reliable levels of mobility on the state highway system, consistent with the expectations for each facility type, location and functional objectives. Highway mobility targets will be the initial tool to identify deficiencies and consider solutions for vehicular mobility on the state system. Specifically, mobility targets shall be used for:

- *Identifying state highway mobility performance expectations for planning and plan implementation;*

- *Evaluating the impacts on state highways of amendments to transportation plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060); and*

- *Guiding operational decisions such as managing access and traffic control systems to maintain acceptable highway performance.*

Where it is infeasible or impractical to meet the mobility targets, acceptable and reliable levels of mobility for a specific facility, corridor or area will be determined through an efficient, collaborative process between ODOT and the local jurisdiction(s) with land use authority. The resulting mobility targets will reflect the balance between relevant objectives related to land use, economic development, social equity, and mobility and safety for all modes of transportation. Alternative mobility targets for the specific facility shall be adopted by the OTC as part of the OHP.

OTC adoption of alternative mobility targets through system and facility plans should be accompanied by acknowledgement in local policy that state highway improvements to further reduce congestion and improve traffic mobility issues in the subject area are not expected.

Traffic mobility exemptions in compliance with the TPR do not obligate state highway improvements that further reduce congestion and improve traffic mobility issues in the subject area.

Action 1F.1

Mobility targets are the measure by which the state assesses the existing or forecasted operational conditions of a facility and, as such, are a key component ODOT uses to determine the need for or feasibility of providing highway or other transportation system improvements. These mobility targets are shown in Table 6 and Table 7. For purposes of assessing state highway performance:

- Use the mobility targets below and in Table 6 when initially assessing all state highway sections located outside of the Portland metropolitan area urban growth boundary.

- Use the mobility targets below and in Table 7 when initially assessing all state highway sections located within the Portland metropolitan area urban growth boundary.

- For highways segments where there are no intersections, achieving the volume to capacity ratios in Tables 6 and 7 for either direction of travel on the highway demonstrates that state mobility targets are being met.

- For unsignalized intersections, achieving the volume to capacity ratios in Tables 6 and 7 for the state highway approaches indicates that state mobility targets are being met. In order to maintain safe operation of the intersection, non-state highway approaches are expected to meet or not to exceed the volume to capacity ratios for District/Local Interest Roads in Table 6, except within the Portland metropolitan area UGB where non-state highway approaches are expected to meet or not to exceed a v/c of 0.99.

- At signalized intersections other than interchange ramp terminals (see below), the overall intersection v/c ratio is expected to meet or not to exceed the volume to capacity ratios in Tables 6 and 7. Where Tables 6 and 7 v/c ratios differ by legs of the intersection, the more restrictive of the volume to capacity ratios in the tables shall apply. Where a state highway intersects with a local road or street, the volume to capacity ratio for the state highway shall apply.

- Although an interchange serves both the mainline and the crossroad to which it connects, it is important that the interchange be managed to maintain safe and efficient operation of the mainline through the interchange area. The main objective is to avoid the formation of traffic queues on off-ramps which back up into the portions of the ramps needed for safe deceleration from mainline speeds or onto the mainline itself. This is a significant traffic safety concern. The primary cause of traffic queuing at off-ramps is inadequate capacity at the intersections of the ramps with the crossroad. These intersections are referred to as ramp terminals. In many instances where ramp terminals connect with another state highway, the mobility target for the connecting highway will generally signify that traffic backups onto the mainline can be avoided. However, in some instances

where the crossroad is another state highway or a local road, the mobility target will not be a good indicator of possible future queuing problems. Therefore, the better indication is a maximum volume to capacity ratio for the ramp terminals of interchange ramps that is the more restrictive volume to capacity ratio for the crossroad, or 0.85.

- At an interchange within an urban area the mobility target used may be increased to as much as 0.90 v/c, but no higher than the target for the crossroad, if:

    1. It can be determined, with a probability equal to or greater than 95 percent, that vehicle queues would not extend onto the mainline or into the portion of the ramp needed to accommodate deceleration from mainline speed; and

    2. An adopted Interchange Area Management Plan (IAMP) is present, or through an IAMP adoption process, which must be approved by the OTC.

- Because the ramps serve as an area where vehicles accelerate or decelerate to or from mainline speeds, the mobility target for the interchange ramps exclusive of the crossroad terminals is the same as that for the mainline. Metered on-ramps, where entering traffic is managed to maintain efficient operation of the mainline through the interchange area, may allow for greater volume to capacity ratios.

Action 1F.2

- Apply mobility targets over at least a 20-year planning horizon when developing state, regional or local transportation system plans, including ODOT's corridor plans.

- When evaluating highway mobility for amendments to transportation system plans, acknowledged comprehensive plans and land use regulations, use the planning horizons in adopted local and regional transportation system plans or a planning horizon of 15 years from the proposed date of amendment adoption, whichever is greater. To determine the effect that an amendment to an acknowledged comprehensive plan or land use regulation has on a state facility, the capacity analysis shall include the forecasted growth of traffic on the state highway due to regional and intercity travel and consistent with levels of planned development according to the applicable acknowledged comprehensive plan over the planning period. Planned development, for the purposes of this policy, means the amount of population and employment growth and associated travel anticipated by the community's acknowledged comprehensive plan over the planning period. The OTC encourages communities to consider and adopt land use plan amendments that would reallocate expected population and employment growth to designated community centers as a means to help create conditions that increase the use of transit and bicycles, encourage pedestrian activity, reduce

reliance on single occupant vehicle travel and minimize local traffic on state highways.

Action 1F.3

In the development of transportation system plans or ODOT facility plans, where it is infeasible or impractical to meet the mobility targets in Table 6 or Table 7, or those otherwise approved by the Commission, ODOT and local jurisdictions may explore different target levels, methodologies and measures for assessing mobility and consider adopting alternative mobility targets for the facility. While v/c remains the initial methodology to measure system performance, measures other than those based on v/c may be developed through a multi-modal transportation system planning process that seeks to balance overall transportation system efficiency with multiple objectives of the area being addressed.

Examples of where state mobility targets may not match local expectations for a specific facility or may not reflect the surrounding land use, environmental or financial conditions include:

- Metropolitan areas or portions thereof where mobility expectations cannot be achieved and where they are in conflict with an adopted integrated land use and transportation plan for promoting compact development, reducing the use of automobiles and increasing the use of other modes of transportation, promoting efficient use of transportation infrastructure, improving air quality, and supporting greenhouse gas reduction objectives;

- When financial considerations or limitations preclude the opportunity to provide a planned system improvement within the planning horizon;

- When other locally adopted policies must be balanced with vehicular mobility and it can be shown that these policies are consistent with the broader goals and objectives of OTP and OHP policy;

- Facilities with high seasonal traffic;

- Special Transportation Areas; and

- Areas where severe environmental or land use constraints[13] make infeasible or impractical the transportation improvements necessary to accommodate planned land uses or to accommodate comprehensive plan changes that carry out the Land Use and Transportation Policy (1B).

[13] Examples of severe environmental and land use constraints include, but are not limited to, endangered species, sensitive wetlands, areas with severe or unstable slopes, river or bay crossings, and historic districts.

Any proposed mobility target that deviates from the mobility targets in Table 6 or Table 7, or those otherwise approved by the Commission, shall be clear and objective and shall provide standardized procedures to ensure consistent application of the selected measure. The alternative mobility target(s) shall be adopted by the OTC as an amendment to the OHP.

The OTC has sole authority to adopt mobility targets for state highways. It will be necessary for affected local jurisdictions to agree to and acknowledge the alternative mobility target for the state highway facility as part of a local transportation system plan and regional plan (MPO) as applicable. Findings shall demonstrate why the particular mobility target is necessary, including the finding that it is infeasible or impractical to meet the mobility targets in Table 6 or Table 7, or those otherwise approved by the Commission.

If alternative targets are needed but cannot be established through the system planning process prior to adoption of a new or updated TSP, they should be identified as necessary and committed to as a future refinement plan work item with an associated timeframe for completion and adoption. In this case, the mobility targets in Table 6 or Table 7, or those otherwise approved by the Commission, shall continue to apply until the alternative mobility targets are formally adopted by the OTC.

Modifications to the mobility targets could include changing the hour measured from the 30^{th} highest hour, using multiple hour measures, or considering weekday or seasonal adjustments. Development of corridor or area mobility targets is also allowed. ODOT's policy is to utilize a v/c based target and methodology as the initial measure, as this will standardize and simplify implementation issues throughout the state. Where v/c-based approaches may not meet all needs and objectives, development of alternative mobility targets utilizing non v-c-based measures, may also be pursued.

In support of establishing the alternative mobility target, the plan shall include feasible actions for:

- Providing a network of local streets, collectors and arterials to relieve traffic demand on state highways and to provide convenient pedestrian and bicycle ways;

- Managing access and traffic operations to minimize traffic accidents, avoid traffic backups on ramps, accommodate freight vehicles and make the most efficient use of existing and planned highway capacity;

- Managing traffic demand and incorporating transportation system management tools and information, where feasible, to manage peak hour traffic loads on state highways;

- Providing and enhancing multiple modes of transportation; and

- Managing land use to limit vehicular demand on state highways consistent with Policy 1B (Land Use and Transportation Policy).

The plan shall include a financially feasible implementation program and shall demonstrate that the proposed mobility target(s) are consistent with and support locally adopted land use, economic development, and multimodal transportation policy and objectives. In addition, the plan shall demonstrate strong local commitment, through adopted policy and implementation strategies, to carry out the identified improvements and other actions.

ODOT understands that in certain areas of the state, achieving the established mobility targets will be difficult and that regional and local policies must be balanced with transportation system performance. ODOT is committed to work with MPOs and local jurisdictions on system-level analysis of alternative mobility targets and to participate in public policy-level discussions where balancing mobility and other regional and community objectives can be adequately addressed.

In developing and applying alternative mobility targets and methodologies for facilities throughout the state, ODOT will consider tools and methods that have been successfully used previously for a particular facility and/or within a specific metropolitan area or region. Specific mobility targets may vary from one community or area to another depending on local circumstances. It is the objective of this policy to maintain consistency in the selection and application of analysis and implementation methodologies over time as they are applied to a specific facility or to a system of related facilities within a defined community or region.

ODOT will provide guidance documents and will work with local jurisdictions and others to apply best practices that streamline development of alternative mobility targets.

Action 1F.4

Alternative mobility targets may also be developed for facilities where an investment has been or is planned to be made which provides significantly more capacity than is needed to serve the forecasted traffic demand based on the existing adopted local comprehensive plan and it is possible to preserve that excess capacity for traffic growth beyond the established planning horizon or traffic growth resulting from local legislative plan amendments or plan amendments associated with OAR 731-017.

Action 1F.5

For purposes of evaluating amendments to transportation system plans, acknowledged comprehensive plans and land use regulations subject to OAR 660-12-0060, in situations where the volume to capacity ratio or alternative mobility target for a highway segment, intersection or interchange is above the mobility targets in Table 6 or Table 7, or those otherwise approved by the Commission, and transportation improvements are not planned within the planning horizon to bring performance to the established target, the

mobility target is to avoid further degradation. If an amendment to a transportation system plan, acknowledged comprehensive plan or land use regulation increases the volume to capacity ratio further, or degrades the performance of an adopted mobility target, it will significantly affect the facility unless addressed through the language below regarding determination of a small increase in traffic. In addition to the capacity increasing improvements that may be required as a condition of approval, other performance improving actions to consider include, but are not limited to:

- System connectivity improvements for vehicles, bicycles and pedestrians.
- Transportation demand management (TDM) methods to reduce the need for additional capacity.
- Multi-modal (bicycle, pedestrian, transit) opportunities to reduce vehicle demand.
- Operational improvements to maximize use of the existing system.
- Land use techniques such as trip caps / budgets to manage trip generation.

In applying "avoid further degradation" for state highway facilities already operating above the mobility targets in Table 6 or Table 7 or those otherwise approved by the Commission, a small increase in traffic does not cause "further degradation" of the facility.

The threshold for a small increase in traffic between the existing plan and the proposed amendment is defined in terms of the increase in average daily trip volumes as follows:

- Any proposed amendment that does not increase the average daily trips by more than 400.
- Any proposed amendment that increases the average daily trips by more than 400 but less than 1001 for state facilities where:
    - The annual average daily traffic is less than 5,000 for a two-lane highway
    - The annual average daily traffic is less than 15,000 for a three-lane highway
    - The annual average daily traffic is less than 10,000 for a four-lane highway
    - The annual average daily traffic is less than 25,000 for a five-lane highway
- If the increase in traffic between the existing plan and the proposed amendment is more than 1000 average daily trips, then it is not considered a small increase in traffic and the amendment causes further degradation of the facility and would follow existing processes for resolution.

In applying OHP mobility targets to analyze mitigation, ODOT recognizes that there are many variables and levels of uncertainty in calculating volume-to-capacity ratios, particularly over the planning horizon. After negotiating reasonable levels of mitigation for actions required under OAR 660-012-0060, ODOT considers calculated values for v/c ratios that are within 0.03 of the adopted target in the OHP to be considered in compliance with the target. It is not the intent of the agency to consider variation within modest levels of uncertainty in violation of mobility targets for reasonable mitigation. The specific mobility target still applies for determining significant affect under OAR 660-012-0060.

Action 1F.6

When making recommendations to local governments about development permit applications and potential actions for mitigation related to local development proposals and criteria consider and balance the following:

- OHP mobility targets;
- Community livability objectives;
- State and local economic development objectives;
- Safety for all modes of travel; and
- Opportunities to meet mobility needs for all modes of travel.

Encourage local jurisdictions to consider OHP mobility targets when preparing local development ordinances and approval criteria to evaluate proposed development applications that do not trigger Section 660-012-0060 of the TPR.

Action 1F.7

Consider OHP mobility targets as guidance to ODOT's highway access management program. Balance economic development objectives of properties abutting state highways with transportation safety and access management objectives of state highways in a manner consistent with local transportation system plans and the land uses permitted in acknowledged local comprehensive plans.

When evaluating OHP mobility targets in access management decisions for unsignalized intersections consider the following:

- The highest priority for OHP mobility targets in guiding access management practices is to address the state highway through traffic movements and the movements exiting the state highway facility.

- When evaluating traffic movements from an approach entering or crossing a state highway, the priority is to consider the safety of the movements. While a v/c ratio for a specific movement greater than 1.0 is an indication of a capacity problem, it does not necessarily mean the traffic movement is unsafe. Apply engineering practices and disciplines in the analysis and design of highway approaches to ensure traffic movements meet safety objectives for the program.

Private approaches at signalized intersections will be treated as all other signalized intersections under OHP Action 1F.1.

Action 1F.8

Consider OHP mobility targets when implementing operational improvements such as traffic signals and ITS improvements on the state highway system. The OHP mobility targets are meant to be used as a guide to compare the relative benefits of potential operational solutions rather than as a firm target to be met. The main goal of operational projects is to improve system performance - which may include mobility, safety or other factors - from current or projected conditions.

Action 1F.9

Enhance coordination and consistency between planning and project design decisions whenever possible. Ensure that project development processes and design decisions take into account statewide mobility and economic objectives, including design standards, while balancing community mobility, livability and economic development objectives and expectations. Consider practical design principles that take a systematic approach to transportation solutions in planning and project development processes. Practical design principles strive to deliver the broadest benefits to the transportation system possible within expected resources.

Table 6: Volume to Capacity Ratio Targets for Peak Hour Operating Conditions

VOLUME TO CAPACITY RATIO TARGETS OUTSIDE METRO[A,B,C]							
Highway Category	**Inside Urban Growth Boundary**					**Outside Urban Growth Boundary**	
	STA[D]	**MPO**	**Non-MPO Outside of STAs where non-freeway posted speed <= 35 mph, or a Designated UBA**	**Non-MPO outside of STAs where non-freeway speed > 35 mph, but <45 mph**	**Non-MPO where non-freeway speed limit >= 45 mph**	**Unincorporated Communities[E]**	**Rural Lands**
Interstate Highways	N/A	0.85	N/A	N/A	0.80	0.80	0.75
Statewide Expressways	N/A	0.85	0.80	0.80	0.80	0.80	0.75
Freight Route on a Statewide Highway	0.90	0.85	0.85	0.80	0.80	0.80	0.75
Statewide (not a Freight Route)	0.95	0.90	0.90	0.85	0.80	0.80	0.80
Freight Route on a Regional or District Highway	0.95	0.90	0.90	0.85	0.85	0.80	0.80
Expressway on a Regional or District Highway	N/A	0.90	N/A	0.85	0.85	0.80	0.80
Regional Highways	1.0	0.95	0.90	0.85	0.85	0.85	0.80
District / Local Interest Roads	1.0	0.95	0.95	0.90	0.90	0.85	0.85

Notes for Table 6

[A] For the purposes of this policy, the peak hour shall be the 30th highest annual hour. This approximates weekday peak hour traffic in larger urban areas. Alternatives to the 30th highest annual hour may be considered and established through alternative mobility target processes.

[B] Highway design requirements are addressed in the Highway Design Manual (HDM).

[C] See Action 1F.1 for additional technical details.

[D] Interstates and Expressways shall not be identified as Special Transportation Areas.

[E] For unincorporated communities inside MPO boundaries, MPO mobility targets shall apply.

Table 7: Volume to Capacity Ratio Targets within Portland Metropolitan Region

VOLUME TO CAPACITY RATIO TARGETS INSIDE METRO[A]		
Location	**Target**	
	1st hour	**2nd hour**
Central City Regional Centers Town Centers Main Streets Station Communities	1.1	.99
Corridors[B] Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	.99	.99
I-84 *(from I-5 to I-205)*[C]	1.1	.99
I-5 North[C] *(from Marquam Bridge to Interstate Bridge)*	1.1	.99
OR 99E[C] (*from Lincoln Street to OR 224 Interchange)*	1.1	.99
US 26[C] *(from I-405 to Sylvan Interchange)*	1.1	.99
I-405[C] *(I-5 South to I-5 North)*	1.1	.99
Other Principal Arterial Routes I-205[C] I-84 *(east of I-205)* I-5 *(Marquam Bridge to Wilsonville)*[C] OR 217[C] US 26 *(west of Sylvan)* US 30 OR 8 *(Murray Blvd to Brookwood Avenue)*[C] OR 224[C] OR 47 OR 213 242nd/US26 in Gresham	.99	.99
Areas of Special Concern[D] Beaverton Regional Center Highway 99W *(I-5 to Tualatin Road)*	1.0 .95	[D]

Notes for Table 7: **Maximum volume to capacity ratios for two hour peak operating conditions through a 20-year horizon for state highway sections within the Portland metropolitan area urban growth boundary.**

[A] See Action 1F.1 for additional technical details.

[B] Corridors that are also state highways are 99W, Sandy Boulevard, Powell Boulevard, 82nd Avenue, North Portland Road, North Denver Street, Lombard Street, Hall Boulevard, Farmington Road, Canyon Road, Beaverton-Hillsdale Highway, Tualatin Valley Highway (from Hall Boulevard to Cedar Hills Boulevard and from Brookwood Street to E Street in Forest Grove), Scholls Ferry Road, 99E (from Milwaukie to Oregon City and Highway 43).

[C] Thresholds shown are for interim purposes only; refinement plans for these corridors are required in Metro's Regional Transportation Plan and will include a recommended motor vehicle performance policy for each corridor.

[D] Areas with this designation are planned for mixed use development, but are also characterized by physical, environmental or other constraints that limit the range of acceptable transportation solutions for addressing a level-of-service need, but where alternative routes for regional through traffic are provided. In these areas, substitute performance measures are allowed by OAR.660.012.0060(2)(d). Provisions for determining the alternative performance measures are included in Section 6.7.7 of the 2000 RTP. The OHP mobility target for state highways in these areas applies until the alternative performance targets are adopted in local plans and approved by the Oregon Transportation Commission.

Materials following this page were distributed at the meeting.

TriMet's Pedestrian Network Analysis

TPAC
September 23, 2011

TRIMET

How do pedestrians relate to TRIMET ?

1. Every transit rider is a pedestrian

2. TriMet is committed to safety

Transit Investment Plan
Priority # 1

Build the Total Transit System

Enhance customer information, access to transit, stop amenities, frequency, reliability, passenger comfort, safety and security.

TRIMET

What Makes Transit Work?

	Works	Doesn't Work
Number of People and Jobs	• Moderate to High	• Low
Street Layout	• Small blocks • Grid system	• Long, winding streets • Dead-end roads, cul de sacs
Mix of Uses	• Mix (commercial, residential, and office uses)	• Single use (e.g. all residential or all industrial)
Pedestrian Environment	• **Wide sidewalks** • **Low volume streets, slow traffic speeds** • **Good lighting** • **Street amenities (benches, tree canopy, etc.)** • **Well-marked intersections with signalized crossings**	• **Narrow sidewalks** • **High volume streets, fast moving traffic** • **Poor lighting** • **No intersection markings and long pedestrian wait times**
Site Design	• Buildings front the street and entrances are near the sidewalk.	• Building setback from street and surrounded by surface parking
Parking	• Limited • Fee-based parking	• Abundant • Free

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Where to Start?

TRIMET

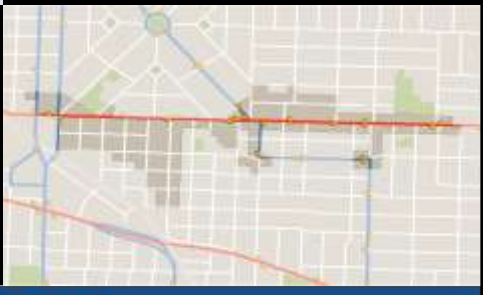
Pedestrian Network Analysis Project

Transit Supportiveness of the Area

How many people are living and/or working in the area?

What does the balance of Jobs to Housing look like?

Are the streets well connected with small block sizes?



TRIMET

Pedestrian Network Analysis Project

Existing Situation of our Transit Stops

How well used is the stop today?

How many lines can a person transfer to?

Where are there clusters of:

- schools
- grocery stores
- universities/colleges
- hospitals
- shopping centers
- major employers
- parks
- social service sites
- child daycare centers
- senior housing
- airports/train stations

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Pedestrian Network Analysis Project

Deficiencies

Where are there sidewalks missing?

Where are there high traffic volumes?

Where are there high posted speed limits?

Where have there been pedestrian crashes?

Pedestrian Network Analysis Project

Opportunities

Can we shift some LIFT customers to fixed route service?

Where are the people who are most in need of smooth pavement, curb cuts, wide sidewalks taking transit?

Where can we build off of past investments?

Where are there existing URA financing tools?

Pedestrian Network Analysis Project

Transit Supportiveness of the Area

How many people are living and/or working in the area?

What does the balance of Jobs to Housing look like?

Are the streets well connected with small block sizes?

Opportunities

Can we shift some LIFT customers to fixed route service?

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Existing Situation of our Transit Stops

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- social service sites
- child daycare centers
- senior housing
- airports/train stations

Deficiencies

Where are there sidewalks missing?

Where are there high traffic volumes?

Where are there high posted speed limits?

Where have there been pedestrian crashes?

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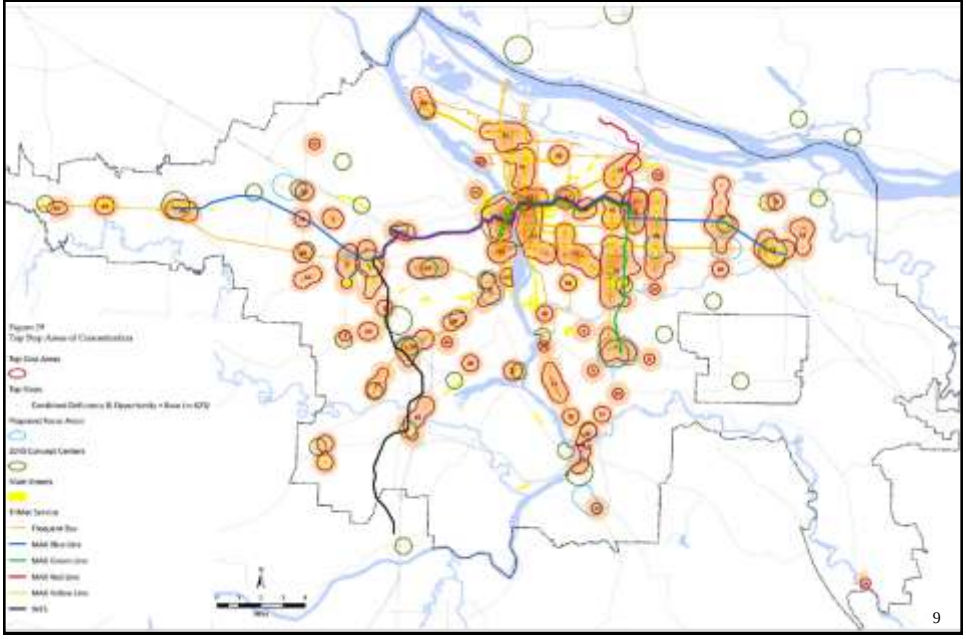
Pedestrian Network Analysis Project
What did we find?



Pedestrian Network Analysis Project
Focus Areas

1	Beaverton	SW Farmington Rd. & Murray Blvd.
2	Clackamas County	Clackamas Town Center
3	Gresham	SE Division & 182nd Ave.
4	Hillsboro	Cornell Rd. / Tanasbourne
5	Oregon City	Warner Milne Rd. / County Red Soils Campus
6	Portland	SE Division & 122nd Ave.
7	Portland	SE Powell Blvd. & 82nd Ave.
8	Portland	SW Bertha Blvd. / Hillsdale
9	Tigard	Tigard Transit Center
10	Washington County	Beaverton-Hillsdale Hwy & Scholls Ferry Rd.

Observed Behaviors

1. People walking near fast moving traffic where there are no sidewalks

Observed Behaviors

2. People crossing wide and fast moving roads unprotected from traffic

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Observed Behaviors

3. Drivers not yielding to pedestrians who have the right-of-way

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Observed Behaviors

4. Young, able bodied people crossing intersections with only seconds to spare

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Observed Behaviors

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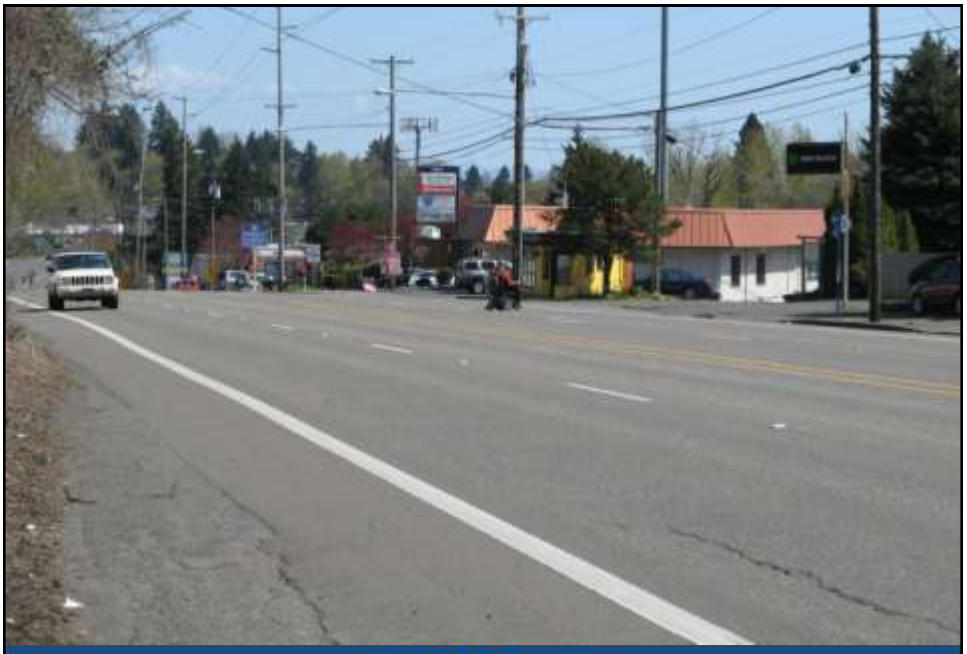

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Washington County – Beaverton-Hillsdale Hwy & Scholls Ferry Rd.

SW Beaverton-Hillsdale Hwy & SW Scholls Ferry Rd.

Needs Help

SW Oleson Rd. South of SW Beaverton-Hillsdale Hwy

Build On

TRIMET

East Portland – 82nd & Powell

SE 82nd & Division

Needs Help

SE 79th & Holgate

Build On

TRIMET

Clackamas County – Clackamas Town Center

SE 82nd between Monterey and Causey

Needs Help

I-205 Path along SE Sunnyside Rd.

Build On

TRIMET

People like walking

TRIMET

TRIMET

Walkability
Sparks Reinvestment

TRIMET

Cornelius' Main Street – *2008*

TRIMET

Cornelius' Main Street – *2011*

TRIMET

Cornelius - Adair St. & 14th

Before

After

TRIMET

Cornelius - Adair St. & 17th

Before

After

TRIMET

Cornelius - Adair St. & 19th

Before

After

TRIMET

Existing Street Connectivity – Tigard Transit Center

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Proposed Street Connectivity – Tigard Transit Center

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Ridership #s as Pedestrian Counts

82nd & Division
18,000 ons/offs a week

Capacity of Rose Garden Arena
20, 630

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Funding and Programmatic Recommendations

1. **Identify how important walking is to your community**
2. **Allocate additional funds to pedestrian infrastructure investments**, based on how important walking is to your community; ensure the level of investment reflects the level of importance.
3. **Concentrate investments in a few key areas to get maximum benefit.** A curb cut alone will not make an area a desirable place to walk, but taken together with curb extensions, landscaping, and pedestrian refugees, it can be transformative.
4. **Invest money into long-term, before and after evaluation** of pedestrian projects so everyone can learn from experience and see what benefits and lessons learned the investments bring.

TRIMET

Thank you

For More Information: Jessica Engelmann, Project Manager
503-962-2137
engelmaj@trimet.org

Report and Fact Sheet
Trimet.org/walk

TRIMET

Oregon Highway Plan Mobility Standards

Oregon Transportation Commission
September 21, 2011

Project Websites

OHP (ODOT)
http://www.oregon.gov/ODOT/TD/TP/OHP2011.shtml

Transportation Planning Rule (DLCD)
http://www.oregon.gov/LCD/Rulemaking_TPR_2011.shtml

- Background and Context
  - HB 3379
  - Stakeholder Feedback LCDC
  - Linkage to TPR
  - Linkage to Economic Development
  - Joint Sub-Committee

- SB 795
  - Passed by 2011 Legislature
  - Required TPR and OHP amendments
  - Eleven required action areas
  - Completion date by end of 2011

- Proposed Policy Amendments
  - Enhanced background section: multi-modal and additional values
  - Change from "standards" to targets
  - Targets are the start of the conversation not the end
  - Policy Intent Statements from the Director

- Proposed Policy Amendments
  - Alternative mobility targets process enhanced and more flexible
  - Clarify "Avoid Further Degradation" policy
  - Clarify role of targets for Access Management
  - Clarify role of targets for operations and design
  - Propose modifying v/c tables

- OTC Action and Next Steps
  - OTC approval to begin formal public involvement and outreach
  - Outreach will follow ODOT Public Involvement Policy
  - Intend to hold Public Hearing at November OTC meeting
  - Seek OTC adoption of OHP revisions at December meeting

Draft Amendments to TPR 0060

– For discussion by the Rulemaking Advisory Committee, September 26, 2011–

Sections 1 through 3 show proposed changes from current rule text.
Sections 9 through 11 show changes since the September 12 RAC meeting.

Proposed Rule Text	*Explanations*
660-012-0005 – Definitions	
(7) "Demand Management" means actions which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity. Methods may include but are not limited to the use of alternative modes, ride-sharing and vanpool programs, ~~and~~ trip-reduction ordinances, shifting to off-peak periods, and reduced or paid parking.	This definition is used in (1)(c).
660-012-0060 – Plan and Land Use Regulation Amendments	
(1) ~~Where~~If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government shall put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule ~~to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility~~. A plan or land use regulation amendment significantly affects a transportation facility if it would:	Clarify that a zoning map is part of land use regulations. Identify exceptions that are described more fully later in the rule. Move the description of how to address a significant effect to section (2), which lists corrective actions.
(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);	
(b) Change standards implementing a functional classification system; or	
(c) Result in any of the effects listed in (A) through (C) below based on projected conditions ~~As~~ measured at the end of the planning period identified in the adopted transportation system plan. ~~Local governments may reduce p~~Projected traffic generation may be reduced if the ~~proposed~~ amendment ~~would~~ includes enforceable ongoing requirements that would demonstrably limit traffic generation, including, but not limited to, transportation demand management.~~:~~	This would ~~C~~clarify the definition of "significant effect" so that anything which reduces traffic generation (as opposed to mitigation that adds capacity) may~~will~~ be considered when determining significant effect. A common approach to limit traffic generation is known as a "trip cap". This method typically limits development, rather than directly limiting trips. At the time of rezoning, trips are allocated for each parcel. At the time of
(A) ~~Allow land uses or levels of development that would result in t~~Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;	

Proposed Rule Text	*Explanations*
	development, size and intensity are limited based on projected traffic generation per square-foot.
(B) Degrade~~Reduce~~ the performance of an existing or planned transportation facility such that it would not meet ~~below the minimum acceptable~~ performance standards identified in the TSP or comprehensive plan; or	Some performance standards are met by staying below the threshold, so the language is changed to be neutral about the direction.
(C) Degrade~~Worsen~~ the performance of an existing or planned transportation facility that is otherwise projected to not meet the ~~perform below the minimum acceptable~~ performance standards identified in the TSP or comprehensive plan.	
(2) ~~Where~~If a local government determines that there would be a significant effect, ~~compliance with section (1) shall be accomplished~~ then the local government shall ensure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility at the end of the planning period identified in the adopted transportation system plan through one or a combination of the following, unless the amendment qualifies for partial mitigation in section (11):	The consistency list was moved from section (1) since it deals with how to correct a significant effect, not the definition of a significant effect. Clarification that consistency for corrective action is measured at the end of the planning period (same as significant effect) to allow for phased mitigation. New text to enable section (11).
(a) Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.	
(b) Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plan so that the facility, improvement, or service will be provided by the end of the planning period.	
~~(c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.~~	Altering designation densities or design requirements and demand management are removed from (2) because they are included in (1)(c) when determining whether there is a significant effect. They can also be used as part of an amendment that has a significant effect, in which case they would reduce the magnitude of the effect and thus reduce the mitigation required by (2).
(c~~d~~)Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.	
(d~~e~~) Providing other measures as a condition of development or through a development agreement or similar funding method, including but not limited to transportation system management measures~~, demand management~~ or minor transportation improvements. Local governments shall as part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided.	
(e) Providing improvements that would benefit ~~to~~ modes other than the significantly affected mode ~~that would be significantly~~	This is to allow more flexibility in mitigation actions.

Proposed Rule Text	*Explanations*
~~affected~~ or improvements to facilities [**OPTIONS**: *within a quarter mile of / near / other than*] the significantly affected facility if the provider of the significantly affected facility provides a written statement that the system-wide benefits are sufficient to [**OPTIONS**: *balance / mitigate]* the significant effect.	
~~(f) Providing one or more of the measures above that partially mitigate the significant effect of an amendment that provides benefits from traded-sector economic development as provided in section (11).~~	The exception for section (11) was moved to the top of (2) because partial mitigation would not meet the requirement to achieve consistency. ~~New text to enable section (11).~~
Option 1: (3) Notwithstanding sections (1) and (2) of this rule, a local government may find that ~~approve~~ an amendment ~~that~~ would not significantly affect an existing transportation facility ~~without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility~~ where: (a) The facility is already performing below the minimum acceptable performance standard identified in the TSP or comprehensive plan on the date the amendment application is submitted, or ; ~~(b)~~ In the absence of the amendment, planned transportation facilities, improvements and services as set forth in section (4) of this rule would not be adequate to achieve consistency with the identified function, capacity or performance standard for that facility by the end of the planning period identified in the adopted TSP;	Mark Whitlow suggested these revisions, which make two substantive changes. First, it defines this situation as not a significant effect, rather than allowing approval with the significant effect. Second, it combines the first two conditions with an "or" so that more situations would qualify. Kathryn Brotherton suggested similar revisions to use "or", but without redefining significant effect.
Option 2: (3) Notwithstanding sections (1) and (2) of this rule, a local government may approve an amendment that would significantly affect an existing transportation facility without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility where: ~~(a) The facility is already performing below the minimum acceptable performance standard identified in the TSP or comprehensive plan on the date the amendment application is submitted;~~ (a)~~(b)~~ In the absence of the amendment, planned transportation facilities, improvements and services as set forth in section (4) of this rule would not be adequate to achieve consistency with the identified function, capacity or performance standard for that facility by the end of the planning period identified in the adopted TSP;	Another option would be to simply delete the condition about current performance and focus solely on projected performance with planned improvements.
Option 3: No changes to (3)	Another option would be to rely on the changes to (2) and the new sections (9), (10) and (11)

Proposed Rule Text	*Explanations*
	to address specific issues.
(be) Development resulting from the amendment will, at a minimum, mitigate the impacts of the amendment in a manner that avoids further degradation to the performance of the facility by the time of the development through one or a combination of transportation improvements or measures;	
(cd) The amendment does not involve property located in an interchange area as defined in paragraph (4)(d)(C); and	
(de) For affected state highways, ODOT provides a written statement that the proposed funding and timing for the identified mitigation improvements or measures are, at a minimum, sufficient to avoid further degradation to the performance of the affected state highway. However, if a local government provides the appropriate ODOT regional office with written notice of a proposed amendment in a manner that provides ODOT reasonable opportunity to submit a written statement into the record of the local government proceeding, and ODOT does not provide a written statement, then the local government may proceed with applying subsections (a) through (d) of this section.	
(4) Determinations under sections (1)-(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.	No changes proposed within (4). Included here for context.
(a) In determining whether an amendment has a significant effect on an existing or planned transportation facility under subsection (1)(c) of this rule, local governments shall rely on existing transportation facilities and services and on the planned transportation facilities, improvements and services set forth in subsections (b) and (c) below.	
(b) Outside of interstate interchange areas, the following are considered planned facilities, improvements and services:	Bob Russell suggested that this section be changed to include all interchanges, not limited to interstate interchanges, to be consistent with the new section (11). This requirements for areas near interstate interchanges was added in the 2006 TPR amendments based on OTC suggestions. Other types of interchanges were not discussed.
(A) Transportation facilities, improvements or services that are funded for construction or implementation in the Statewide Transportation Improvement Program or a locally or regionally adopted transportation improvement program or capital improvement plan or program of a transportation service provider.	
(B) Transportation facilities, improvements or services that are authorized in a local transportation system plan and for which a funding plan or mechanism is in place or approved. These include, but are not limited to, transportation facilities, improvements or services for which: transportation systems development charge revenues are being collected; a local improvement district or reimbursement district has been established or will be established prior to development; a development agreement has been adopted; or conditions of approval to fund the improvement have been adopted.	

Proposed Rule Text	*Explanations*
(C) Transportation facilities, improvements or services in a metropolitan planning organization (MPO) area that are part of the area's federally-approved, financially constrained regional transportation system plan.	
(D) Improvements to state highways that are included as planned improvements in a regional or local transportation system plan or comprehensive plan when ODOT provides a written statement that the improvements are reasonably likely to be provided by the end of the planning period.	
(E) Improvements to regional and local roads, streets or other transportation facilities or services that are included as planned improvements in a regional or local transportation system plan or comprehensive plan when the local government(s) or transportation service provider(s) responsible for the facility, improvement or service provides a written statement that the facility, improvement or service is reasonably likely to be provided by the end of the planning period.	
(c) Within interstate interchange areas, the improvements included in (b)(A)-(C) are considered planned facilities, improvements and services, except where:	
(A) ODOT provides a written statement that the proposed funding and timing of mitigation measures are sufficient to avoid a significant adverse impact on the Interstate Highway system, then local governments may also rely on the improvements identified in paragraphs (b)(D) and (E) of this section; or	
(B) There is an adopted interchange area management plan, then local governments may also rely on the improvements identified in that plan and which are also identified in paragraphs (b)(D) and (E) of this section.	
(d) As used in this section and section (3):	
(A) Planned interchange means new interchanges and relocation of existing interchanges that are authorized in an adopted transportation system plan or comprehensive plan;	
(B) Interstate highway means Interstates 5, 82, 84, 105, 205 and 405; and	
(C) Interstate interchange area means:	
(i) Property within one-half mile of an existing or planned interchange on an Interstate Highway as measured from the center point of the interchange; or	
(ii) The interchange area as defined in the Interchange Area Management Plan adopted as an amendment to the Oregon Highway Plan.	
(e) For purposes of this section, a written statement provided pursuant to paragraphs (b)(D), (b)(E) or (c)(A) provided by ODOT, a local government or transportation facility provider, as appropriate, shall be conclusive in determining whether a transportation	

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facility, improvement or service is a planned transportation facility, improvement or service. In the absence of a written statement, a local government can only rely upon planned transportation facilities, improvements and services identified in paragraphs (b)(A)-(C) to determine whether there is a significant effect that requires application of the remedies in section (2).	
(5) [Transportation facility not a basis for an exception on rural lands]	
(6) In determining whether proposed land uses would affect or be consistent with planned transportation facilities as provided in 0060(1) and (2), local governments shall give full credit for potential reduction in vehicle trips for uses located in mixed-use, pedestrian-friendly centers, and neighborhoods as provided in (a)-(d) below;	No changes proposed within (6). Included here for context.
(a) Absent adopted local standards or detailed information about the vehicle trip reduction benefits of mixed-use, pedestrian-friendly development, local governments shall assume that uses located within a mixed-use, pedestrian-friendly center, or neighborhood, will generate 10% fewer daily and peak hour trips than are specified in available published estimates, such as those provided by the Institute of Transportation Engineers (ITE) Trip Generation Manual that do not specifically account for the effects of mixed-use, pedestrian-friendly development. The 10% reduction allowed for by this section shall be available only if uses which rely solely on auto trips, such as gas stations, car washes, storage facilities, and motels are prohibited;	
(b) Local governments shall use detailed or local information about the trip reduction benefits of mixed-use, pedestrian-friendly development where such information is available and presented to the local government. Local governments may, based on such information, allow reductions greater than the 10% reduction required in (a);	
(c) Where a local government assumes or estimates lower vehicle trip generation as provided in (a) or (b) above, it shall assure through conditions of approval, site plans, or approval standards that subsequent development approvals support the development of a mixed-use, pedestrian-friendly center or neighborhood and provide for on-site bike and pedestrian connectivity and access to transit as provided for in 0045(3) and (4). The provision of on-site bike and pedestrian connectivity and access to transit may be accomplished through application of acknowledged ordinance provisions which comply with 0045(3) and (4) or through conditions of approval or findings adopted with the plan amendment that assure compliance with these rule requirements at the time of development approval; and	
(d) The purpose of this section is to provide an incentive for the designation and implementation of pedestrian-friendly, mixed-use centers and neighborhoods by lowering the regulatory barriers to	

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plan amendments which accomplish this type of development. The actual trip reduction benefits of mixed-use, pedestrian-friendly development will vary from case to case and may be somewhat higher or lower than presumed pursuant to (a) above. The Commission concludes that this assumption is warranted given general information about the expected effects of mixed-use, pedestrian-friendly development and its intent to encourage changes to plans and development patterns. Nothing in this section is intended to affect the application of provisions in local plans or ordinances which provide for the calculation or assessment of systems development charges or in preparing conformity determinations required under the federal Clean Air Act.	
(7) [Special provisions for cities without a TSP amending to affect 2 acres of commercial land]	
(8) A "mixed-use, pedestrian-friendly center or neighborhood" for the purposes of this rule, means: (a) Any one of the following: (A) An existing central business district or downtown; (B) An area designated as a central city, regional center, town center or main street in the Portland Metro 2040 Regional Growth Concept; (C) An area designated in an acknowledged comprehensive plan as a transit oriented development or a pedestrian district; or (D) An area designated as a special transportation area as provided for in the Oregon Highway Plan. (b) An area other than those listed in (a) which includes or is planned to include the following characteristics: (A) A concentration of a variety of land uses in a well-defined area, including the following: (i) Medium to high density residential development (12 or more units per acre); (ii) Offices or office buildings; (iii) Retail stores and services; (iv) Restaurants; and (v) Public open space or private open space which is available for public use, such as a park or plaza. (B) Generally include civic or cultural uses; (C) A core commercial area where multi-story buildings are permitted; (D) Buildings and building entrances oriented to streets; (E) Street connections and crossings that make the center safe and conveniently accessible from adjacent areas; (F) A network of streets and, where appropriate, accessways and major driveways that make it attractive and highly convenient for people to walk between uses within the center or	No changes proposed within (8). Included here for context. The RAC has discussed the differences between STA and MMA and whether they could be made consistent. Changes to the OHP regarding STAs would be outside the immediate scope of OHP Policy 1F revisions, but could be evaluated and considered as a future work item based on the results of TPR amendments.

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neighborhood, including streets and major driveways within the center with wide sidewalks and other features, including pedestrian-oriented street crossings, street trees, pedestrian-scale lighting and on-street parking; (G) One or more transit stops (in urban areas with fixed route transit service); and (H) Limit or do not allow low-intensity or land extensive uses, such as most industrial uses, automobile sales and services, and drive-through services.	
(9) Notwithstanding section (1) of~~f~~ this rule, a local government may find that an amendment to a zoning map does not significantly affect an existing or planned transportation facility if all of the following requirements are met.~~:~~	New section to exempt zone map amendments consistent with comprehensive plan map designation
Option 1: (a) The proposed zoning is consistent with the existing comprehensive plan map designation and the amendment does not change the comprehensive plan map. (b) The local government has an acknowledged TSP.	A majority of the RAC supported a "bright line" test that does not evaluate the specifics of an acknowledged TSP.
Option 2: (c) The proposed zoning is consistent with the TSP assumptions about development of the area of the proposed amendment. If more than one zone is allowed within the comprehensive plan map designation, then consistency means the specific zone with projected traffic generation that most closely matches ~~corresponds to~~ the TSP assumptions. Consistency is not met if the TSP assumed continuation of the current zone, if it assumed the area would remain undeveloped throughout the planning horizon, or if the area was brought into the UGB without applying this rule as permitted in OAR 660-024-0020(1)(d). (d) The TSP evaluated at a system level, the transportation facilities and services needed to support assumed development. To meet this requirement it is not necessary that the TSP include a detailed traffic impact analysis for the specific area proposed for the zoning map amendment.	A minority of the RAC supported including additional provisions in (c) and (d) to determine whether the proposed amendment was anticipated in the TSP. The recommendation of the joint-subcommittee stated "It will be important in the rulemaking process to define the type and level of prior planning and analysis that qualifies for this exemption." The joint-subcommittee did not support a blanket exception.
Option 3: (a) The proposed zoning is consistent with the existing comprehensive plan map designation and the amendment does not change the comprehensive plan map. (b) The local government shall rely on an acknowledged TSP where: (A) The full TSP a TSP whose acknowledgement date is less within 15 years from the date the zone change was filed (B) If the zone change filing date is more than 15 years after the full TSP ~~a TSP whose~~ acknowledgement date then additional analysis and findings may be required. Additional analysis and findings shall substantiate that development intensities underpinning the TSP, in the location of the proposed zone change, are not substantially less intense than urban development patterns typical for, or contemplated by, the applicable comprehensive plan designation(s). (c) The TSP shall be evaluated at a system level. To meet this	Option 3 is a suggestion from Mike Montero: "This is intended to function as a safe harbor provision for economic development applicants as well as local government, while providing sufficient impact analysis. If the TSP meets this requirement, the land use decision proceeds with full exemption. From an ED perspective, this change dramatically reduces investment risk, process time and cost, both of which meet the intent of SB795. If the TSP is dated,

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requirement it is not necessary that the TSP include a detailed traffic impact analysis for the specific area proposed for the zoning map amendment.	local government CAN still rely on it, provided sufficient supplemental findings demonstrate that the dated TSP meets the standard as provided."
(10) Notwithstanding sections (1) and (2) of this rule, a local government may amend a functional plan, a comprehensive plan or a land use regulation without applying performance standards related to motor vehicle traffic congestion (e.g. volume to capacity ratio or V/C), delay or travel time if the amendment meets the requirements of (a). This section does not exempt a proposed amendment from other transportation performance standards or policies that may apply.	New section to designate multimodal, mixed-use areas that are exempt from congestion performance standards. Other performance standards could include safety for all modes, network connectivity for all modes (e.g. sidewalks, bicycle lanes) and accessibility for freight vehicles.
(a) A proposed amendment qualifies for this section if it: (A) is a map or text amendment affecting only land entirely within a multimodal mixed-use area (MMA); and (B) is consistent with the definition of an MMA and consistent with the function of the MMA as described in the findings designating the MMA.	~~The term "urban center" says nothing about the type of transportation network, hence "multimodal" is added. "Urban" already has a defined meaning (i.e. within a UGB), so "mixed-use" is used as a more specific description. "Center" may not always be appropriate because it could be a neighborhood node or a corridor rather than the center of a city. "Area" is a more general term.~~
(b) For the purpose of this rule, "multimodal mixed-use area" or "MMA"" means an area: (A) with a boundary adopted by a local government as provided in (c) or (d) and that has been acknowledged; (B) entirely within an urban growth boundary; (C) ~~having the characteristics, or~~ having adopted plans and development regulations that allow the uses listed in (8)(b)(A) through (C) of this rule and ~~would~~ require new development to be consistent with the characteristics~~,~~ listed in ~~subsection~~ (8)(b)(D) through (H) of this rule; (D) with land use regulations that do not require the provision of off-street parking, or that require lower levels of off-street parking than required in other areas and that allow flexibility to meet the parking requirements (e.g. count on-street parking, allow long-term leases, allow shared parking); and (E) Located in one or more of the categories below (i) Outside one-half mile of an interchange as measured from the center point of the interchange; (ii) Within the area of an adopted Interchange Area	OPTION: Within the Portland Metropolitan area, include designated centers if they have complied with Metro Title VI requirements. Could this be automatic or would it require action by Metro? Perhaps findings by the local government that it complies with Title VI? OPTION: Another way to define the area would be "at least one-quarter mile from any

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Management Plan (IAMP) and consistent with the IAMP; or (iii) Within one-half mile of an interchange and the mainline facility provider has provided written concurrence with the MMA designation as provided in (c)	interchange ramp terminal intersection." In most cases this would result in a similar area to one-half mile from the interchange center. Using ramp terminals would mean that freeway to freeway interchanges would not be included in the requirement. This would makes sense since nearby development would not have any way to affect the freeway. It could work better for odd shaped interchanges where the center is not clear. It would not be consistent with (4), but would be consistent with ODOT access management rules (Division 51).
(c) When a mainline facility provider reviews an MMA designation within one-half mile of an interchange, the provider shall consider the following factors: (A) The potential for operational or safety effects to the interchange area and the mainline highway, specifically considering: (i) Whether the interchange area has a crash rate that is higher than the statewide crash rate for similar facilities;	
(ii) Whether the interchange area is in the top ten percent (10%) of locations identified by the safety priority system index developed by ODOT; and (iii) Whether existing or potential future traffic queues on the interchange exit ramps extend onto the mainline highway or the portion of the ramp needed to bring a vehicle to a full stop from posted mainline speeds.	
(B) If there are operational or safety effects as described above, ~~the facility provider may address~~ the effects may be addressed by ~~entering into~~ an agreement between ~~with~~ the local government and the facility provider regarding traffic management plans favoring traffic movements away from the interchange, particularly those facilitating clearing traffic queues on the interchange exit ramps.	An agreement could include, trigger points for actions such as adjusting signal timing, access management, extending off ramps, variable speed control, and other traffic system management and operation actions.
(d) A local government may designate an MMA by adopting an amendment to the comprehensive plan or land use regulations to delineate the boundary following an existing zone, multiple existing zones, an urban renewal area, other existing boundary, or establishing a new boundary. The designation must be accompanied by findings showing how the area meets the definition of an MMA. Designation of an MMA is not subject to the requirements in sections (1) and (2) of this rule.	
(e) A local government may designate an MMA on an area where comprehensive plan map designations or land use regulations~~zoning~~ do not meet the definition, if all of the other elements meet the definition, by concurrently adopting comprehensive plan or land use regulation~~zoning~~ amendments necessary to meet the definition. Such amendments are not subject to performance standards related to motor vehicle traffic congestion, delay or travel time.	

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(11) A local government may approve an amendment with ~~accept~~ partial mitigation as provided in ~~sub~~section(2)~~(f)~~ of this rule if the amendment complies with (a)~~, the local government finds that~~ the amendment meets the balancing test in (b), and the local government coordinates as provided in (c). (a) The amendment must:	New section to allow balancing economic development benefits with transportation effects. Some RAC members did not want to allow partial mitigation
Option 1: (A) Be consistent with an Economic Opportunities Analysis (EOA) that has been adopted and acknowledged.	Option 1 was in the draft at the August 29 meeting. It is primarily intended to ensure that the local government has prepared an EOA.
Option 2: (A) Further a local government's economic development objectives as set forth in the local government's adopted economic development plan or acknowledged Economic Opportunities Analysis (EOA).	Option 2 is a suggestion from Kathryn Brotherton.
Option 3: No requirement about consistency with EOA or Comprehensive plan.	Options 3 recognizes that an amendment is already required to be consistent with the local comprehensive plan, regardless of what the TPR says.
(B) Create direct benefits in terms of industrial or traded-sector jobs created or retained by limiting uses to industrial or ~~and~~ traded-sector industries.	~~"Industrial" was added to be consistent with SB766 which uses t~~The phrase "industrial or traded sector~~.~~" and the ~~This~~ definition of "industrial" come ~~is~~ from SB 766.
(i) For the purposes of this rule, "industrial use" means employment activities generating income from the production, handling or distribution of goods including, but not limited to, manufacturing, assembly, fabrication, processing, storage, logistics, warehousing, importation, distribution and transshipment and research and development.	
(ii) For the purposes of this rule, "traded-sector" has the meaning given in ORS 285A.010.	ORS 285A.010 defines "Traded sector" as industries in which member firms sell their goods or services into markets for which national or international competition exists.
(C) Not allow retail uses, except limited retail incidental to industrial or traded sector development, not to exceed five percent (5%) of the net developable area.	
OPTION (D) Notwithstanding (B) and (C), an amendment in urban areas with a population below 10,000 qualifies for this section by demonstrating benefits in terms of jobs created or retained.	Members of TAC requested consideration of a broader definition for smaller communities. This is one way that such an exemption could be

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	written if the RAC approves.
(b) A local government may accept partial mitigation only if the local government determines that the benefits outweigh the negative effects on local transportation facilities and the local government receives a written statement from the provider of any transportation facility that would be significantly affected ~~any affected transportation providers~~ that the benefits outweigh the negative effects on their transportation facilities.	The RAC cho~~o~~se this option which requires concurrence from ODOT and the county if their facilities would be affected. The revised definition is limited to "facilities", so it does not include "services" such as transit, intercity bus or railroads.
OPTION 1: This requirement is satisfied if the local government does not receive the transportation facility provider letter within forty-five (45) days of providing notice as required by (c) but no later than the date on which the staff report is issued.	Suggestion from Michael Robinson.
OPTION 2: However, if a local government gives the provider with written notice of a proposed amendment as required by (c), and the provider does not respond with a written statement by the date of the first evidentiary hearing, then the local government may proceed.	This option is based on text from (3).
(c) A local governments that proposes to use this section shall coordinate with Business Oregon, DLCD, area commission on transportation, metropolitan planning organization, and all affected transportation providers to allow opportunities for comments on whether the proposed amendment meets the definition of economic development, how it would affect transportation facilities and the adequacy of proposed mitigation. Informal coordination is encouraged throughout the process starting with pre-application meetings. Formal coordination must include notice at least forty-five (45) days prior to the first evidentiary hearing. Notice must include the following: i. Proposed amendment. ii. Proposed mitigating actions from section (2) of this rule. iii. Analysis and projections of the extent to which the proposed amendment in combination with proposed mitigating actions will fall short of being consistent with the function, capacity, and performance standards of transportation facilities. iv. Findings showing how the proposed amendment meets the requirements of ~~definition of traded sector economic development in~~ (a). v. Findings showing that the benefits of the proposed amendment outweigh the negative effects on transportation facilities.	Mike Montero withdrew his suggestion for this section.