600 NE Grand Ave.
Portland, OR 97232-2736
503-797-1700
503-797-1804 TDD
503-797-1797 fax

www.oregonmetro.gov

Metro | *Memo*

Date: October 6, 2010

To: Joint Policy Advisory Committee on Transportation (JPACT) and interested parties

From: Kim Ellis, Principal Transportation Planner

Re: Climate Smart Communities Scenarios

PURPOSE

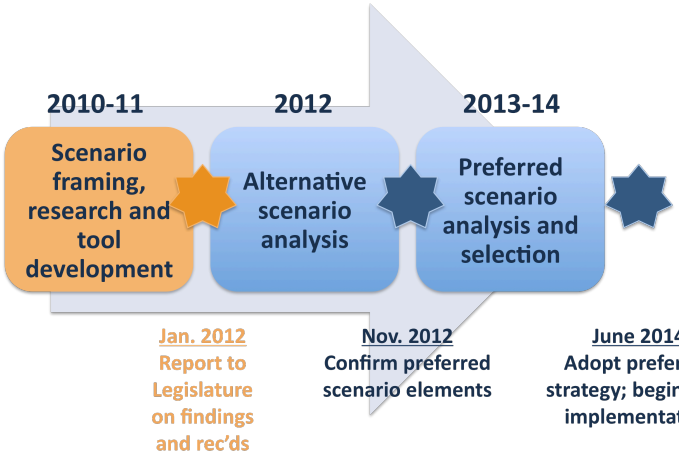
The purpose of this agenda item is to share information about the Climate Smart Communities Scenarios Project and receive input on information needs and opportunities for collaboration and partnerships through this process. Staff will bring forward more specific policy questions and options for JPACT consideration in December.

BACKGROUND

In 2009, the Legislature passed House Bill 2001, directing Metro to "develop two or more alternative land use and transportation scenarios" by January 2012 that are designed to reduce greenhouse gas emissions from light-duty vehicles. The Climate Smart Communities Scenarios project responds to this mandate.

The first 6 to 8 months of the project will identify the most promising and effective land use and transportation policy options that were presented at the April 2010 climate change retreat. Staff will conduct a literature review and synthesize the latest empirical research relevant to this work in a series of policy briefs and case studies. Land use and transportation strategies (e.g. locating jobs and services closer to homes and expanding bus and high capacity transit) as well as operational and management strategies (e.g. traffic signal timing, parking pricing and other user-based fees) will be evaluated through regional-level scenarios to understand what is required to meet greenhouse gas emissions reduction targets. The Land Conservation and Development Commission (LCDC) is expected to adopt targets for the Metro region in May 2011. Findings and recommendations from the scenario planning will be reported to the Legislature in January 2012, and guide future phases of the project, as shown in Figure 1.

Figure 1. Climate Smart Communities Scenarios Process



BUILDING ON PAST INNOVATION AND SUCCESSES

This region successfully conducted scenario planning in the 1990's, which led to adoption of the 2040 Growth Concept. The 2040 Growth Concept establishes a vision and set of policies that national studies have shown will reduce greenhouse gas emissions. While this effort will have similarities to the 2040 Growth Concept scenario planning process, this scenario planning effort will be outcomes-based and focused on meeting an ambitious and specific performance target.

Many interconnected factors affect light vehicle greenhouse gas emissions. This project will build on and advance existing 2040 implementation efforts, local aspirations and consider bold land use and transportation policy options not before tested in the region. The data, tools and methods developed through this project will inform future policy discussions on how the region should move forward to meet the state's greenhouse gas emissions reduction targets for cars and light trucks. This work also provides an opportunity to advance the region's ability to analyze the effect of different combinations of land use and transportation strategies relative to the GHG emission reduction targets and the region's desired outcomes.

The project will use existing advisory committees and result in MPAC, JPACT and Council adoption of a "preferred land use and transportation" strategy and implementation of changes to policies, investments, tools and actions at the regional and local levels to realize the adopted strategy.

RELATIONSHIP TO STATE CLIMATE ACTIVITIES

The process and results of the Metro-area scenario planning effort will inform the work being conducted by the Oregon Department of Transportation (ODOT) and the Department of Land Conservation and Development (DLCD) in response to Senate Bill 1059.[1] Approved by the 2010 Legislature, Senate Bill 1059 provides further direction to greenhouse gas scenario planning in the Metro region and in other metropolitan areas of the state. It also calls for development of a statewide transportation GHG emission reduction strategy, guidelines for scenario planning, and toolkit of emission reductions actions. A summary of the state activities is attached for reference.

NEXT STEPS

Addressing the climate change challenge will take collaboration and partnerships in the public and private sectors, requiring meaningful policy and investment discussions and decisions by elected leaders, stakeholders and the public. By working together, the region can make real progress toward successful achievement of the region's desired outcomes.

Staff will bring forward more specific policy questions and options for JPACT consideration in December.

/Attachments

- Oregon Transportation GHG Emission Reduction Planning *(September 13, 2010)*
- Climate Smart Communities Scenarios presentation *(October 14, 2010)*

[1] For more information, go to http://www.oregon.gov/ODOT/TD/TP/SB1059.shtml

OREGON TRANSPORTATION GHG EMISSION REDUCTION PLANNING

September 13, 2010

Statewide Transportation Strategy

Statewide strategy for reducing GHG emissions from the transportation sector to aid in achieving legislated GHG reduction targets.

To be adopted by the Oregon Transportation Commission.

- Policy Committee
- Technical Advisory Committee

Technical Info for LCDC Rulemaking

ODOT, DEQ, and ODOE provide estimates of 1990 light vehicle GHG emissions and forecasts of future vehicle fleet and fuel characteristics.

Scenario Planning Guidelines

Guidelines and process for metropolitan areas to develop land use and transportation scenarios to meet GHG reduction targets.

- Technical Advisory Committee

Toolkit

Information on actions and programs local governments may undertake to reduce GHG emissions from light vehicles.

Public Education

Statewide public outreach and education about the need to reduce GHG emissions from light vehicles and about the costs and benefits of reducing GHG emissions.

LCDC Rulemaking to Set Metropolitan Area Light Vehicle GHG Emissions Targets

- Target Rulemaking Advisory Committee

Scenario Planning Financial Report

Joint ODOT, DLCD, local governments report to 76th Legislative Assembly on financing scenario planning

Progress and Recommendations Report

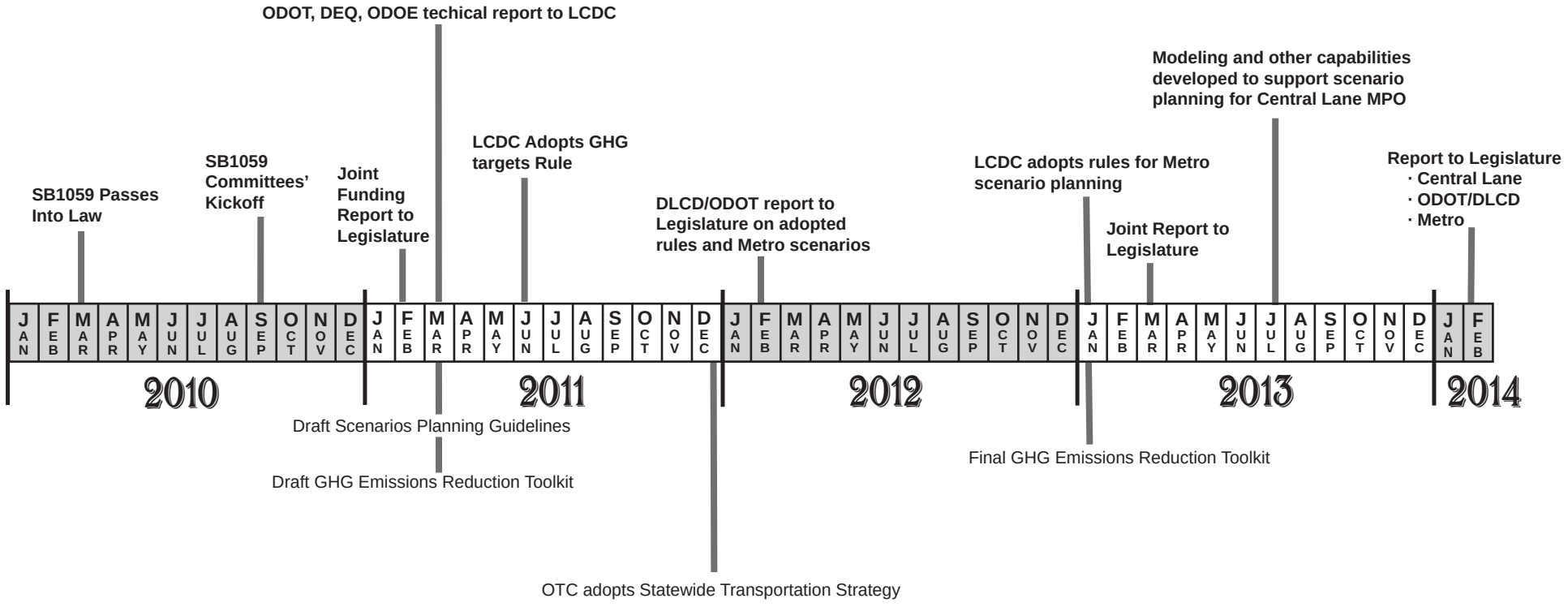
Joint ODOT & DLCD report to 77th Legislative Assembly regarding SB 1059 progress.

Oregon Department of Transportation

www.oregon.gov/ODOT/TD/TP/SB1059.shtml

September 13, 2010

Oregon Transportation GHG Emission Reduction Planning



Acronyms:

LCDC	Land Conservation and Development Commission	ODOE	Oregon Department of Energy	GHG	Greenhouse Gas
ODOT	Oregon Department of Transportation	MPO	Metropolitan Planning Organization	Metro	Portland Area Regional Government
OTC	Oregon Transportation Commission	DLCD	Department of Land Conservation Development	DEQ	Department of Environmental Quality

www.oregon.gov/odot/td/tp/sb1059.shtml

Oregon Department of Transportation

Climate Smart Communities Scenarios

Addressing climate change with land use and transportation

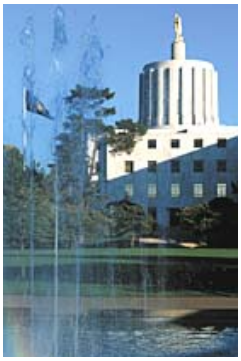
Kim Ellis, project manager

Joint Policy Advisory Committee on Transportation

October 14, 2010

Metro | *People places. Open spaces.*

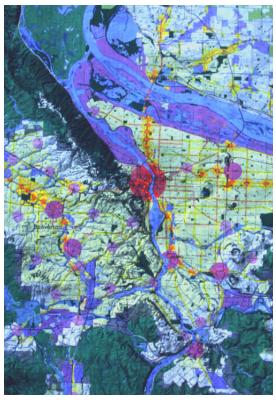
Mandated state climate work



- Set statewide transportation strategy
- Set targets for light vehicles in metropolitan areas
- Develop scenario guidelines & toolkit
- Prepare estimates of future vehicle and fuel technology
- Public outreach campaign
- Report to 2011 and 2012 Legislatures

More information: http://www.oregon.gov/ODOT/TD/TP/SB1059.shtml

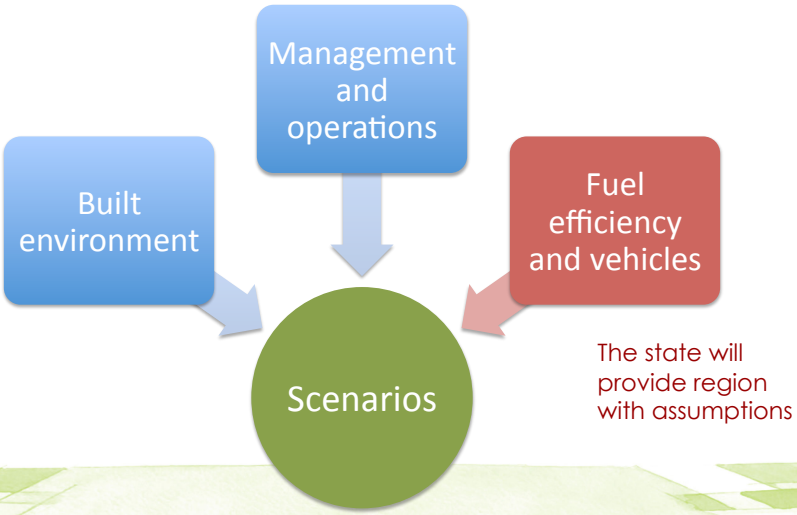
Building on past innovation and successes



- **1995: Region 2040**
- **2010: Making a Great Place**
  - Six Desired Outcomes
  - Regional Transportation Plan
  - Urban and Rural Reserves
  - Community Investment Strategy

Packages of policies and actions

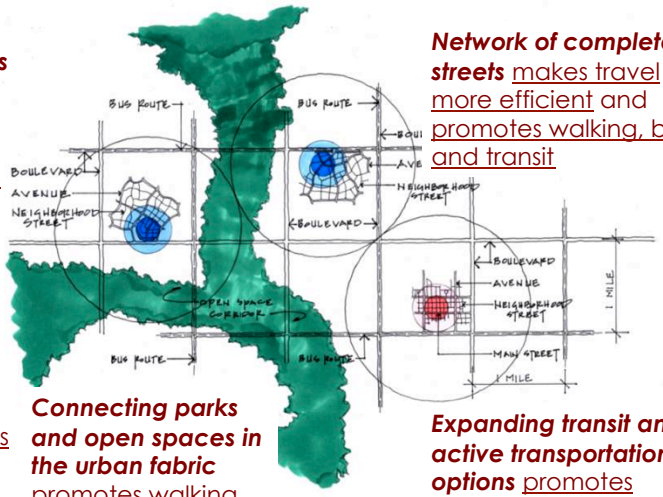
Testing "bundles" of strategies



Potential role of built environment

Land use and transportation strategies

Mix of activities and proximity to transit promotes walking, biking and use of transit



Network of complete streets makes travel more efficient and promotes walking, biking and transit

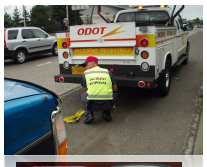
Locating jobs and services closer to homes reduces auto trip lengths

Connecting parks and open spaces in the urban fabric promotes walking, biking and transit

Expanding transit and active transportation options promotes walking, biking and transit

Potential role of management & operations

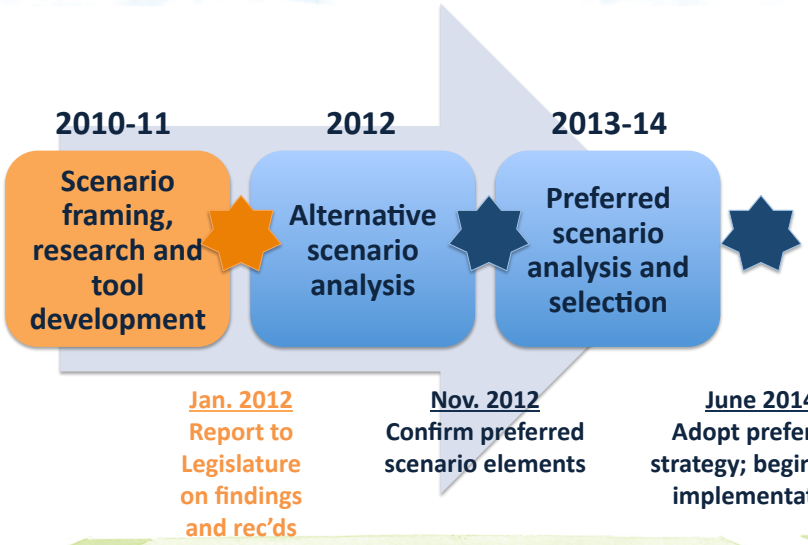
Demand and system management strategies



- Commuter benefits programs
- Ridesharing
- Traffic signal timing
- Incident management
- Parking management
- Pricing and tolling
- Financial incentives
- User-based strategies

Drive less. Save more.

Scenario planning process

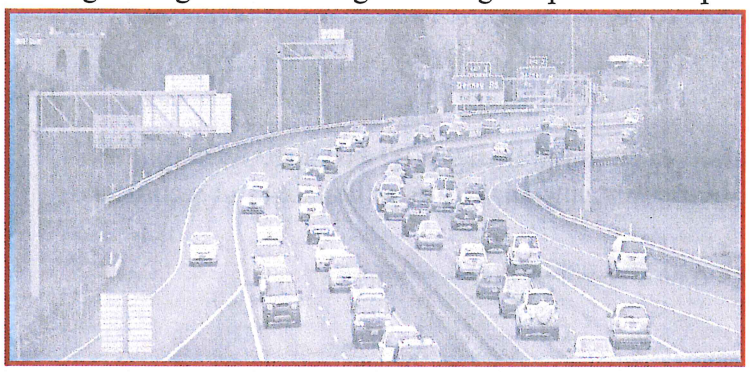


Discussion

- Additional information or background needed?
- Opportunities for collaboration and partnerships?

Oregon Department of Transportation
OR 217 System Management Study Briefing

An innovative approach to transportation corridor planning that utilizes least cost planning strategies to investigate a range of potential improvements.



Background and Objectives

OR 217 connects I-5 and US-26

- Carries up to 120,000 vehicles per day, yet the facility is one of the least reliable freeways in the Portland Region.

Previous study addressed these mobility and safety problems with costly capital projects such as widening to six lanes, braiding ramps, and adding collector-distributor roadway.

- These high-cost improvements total nearly $1 billion

Key Problems

The key problems of OR 217 are:

- Bottlenecks
- Short Interchange Spacing
- High crash rates
- Unreliable travel times

Approach

The objective of this study was to identify and evaluate the types of lower cost, fundable projects that could feasibly be constructed for OR 217 today to increase reliability, mobility, and safety.

Triple Bottom Line

Process

Workshop attended by representatives from public agencies (ODOT, Washington County, City of Tigard, City of Beaverton, and Metro) as well as several technical experts.

- forty projects were developed as a result of the workshop
- assigned into categories

Key Findings

The Key Findings of the initial analysis were:

- These operational "Best in Class" strategiescan maximize the efficiency of a facility, before building additional capacity.
- These strategies each offer reliability and safety benefits to OR 217.
- Individual projects could be implemented for less than $10 million.
- The degree of benefit varies based on the strategy.

Based on the initial analysis, elected officials determined that select "Best in Class" strategies from the systems management projects should move forward for more detailed analysis.

- Targeted Shoulder Widening
- Traveler Information
- Variable Speed System

"Best of Class"
Targeted Shoulder Widening

Narrow shoulders hinder the performance of a freeway. Peak period OR 217 travel times are already unreliable and incidents only exacerbate this condition.

- Having an adequate shoulder can restore lost capacity during an incident by 35 to 45 percent.

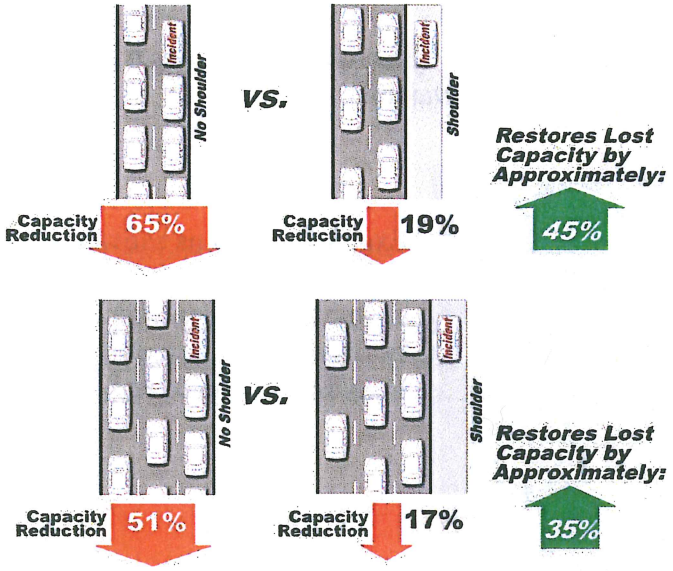


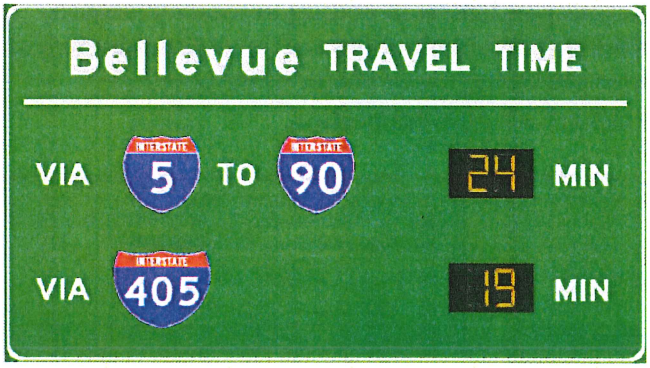
Illustration of lost capacity due to an incident

- Narrow shoulders slow emergency responders from getting to incident scenes, provide no space for stopped vehicles to avoid blocking traffic, every minute lost responding to an incident is costly, jeopardizing the health of those people involved in the accident as well as exacerbating congestion.

"Best of Class"
Traveler Information

The traveler information strategy would provide travel time information for OR 217 at key decision points allowing drivers make the choice to either use OR 217 or an alternate route. Informing drivers of congested conditions before they decide to enter the freeway can improve the reliability of travel on OR 217, and can decrease primary and secondary incidents by reducing congestion

- Freeway delay time could improve by 50 percent during heavily congested periods.
- Based on traveler information studies, up to 85 percent of travelers will change routes when en route delay information is available.



Examples of signs showing travel time information. The top sign is an example of how information could be displayed on arterials, such as Canyon Road (pictured).

"Best of Class"
Variable Speed System

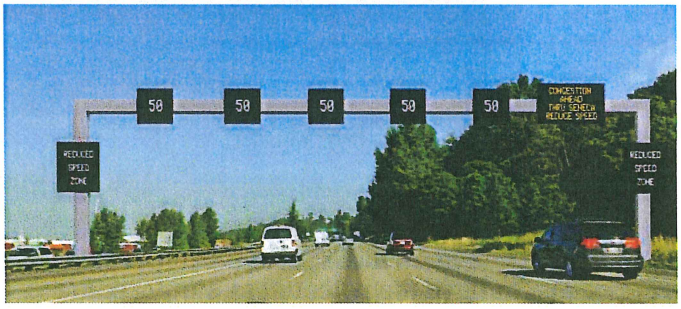
Primary benefit of a variable speed system is to reduce rear end collisions, which account for 70 percent of all collisions on OR 217 (which is about two to three rear end collisions per week).

- Reducing rear-end collisions improves reliability, safety, and mobility.
- Studies indicate that the variable speed system have reduced rear end collisions by 30 percent, overall crash rates decreased by 20 percent, and secondary crashes went down by 40 percent

Variable speed limits can also directly improve performance and reliability. The use of variable speed control can achieve improved throughput on a freeway during recurring congestion by lowering the speed limit.

- Optimal freeway capacity during congested operations is not achieved at 65, 60, or even 55 miles per hour. It is achieved at 40 to 45 miles per hour

Recently, a variable speed system was implemented on three freeways in the Seattle area (I-5, I-90, and SR-520).

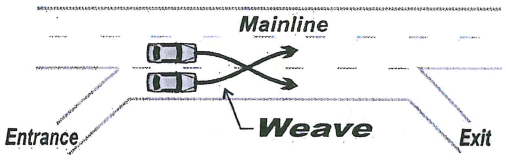


Post mounted system (above) and gantry mounted system (below)

"Best of Class"
Ramp Management with Associated Street Strategy

Ramp management strategy targets improving operations on OR 217 by reducing conflict areas through the closure of ramps or interchanges with complementary off-highway street improvements. Removing interchanges is an innovative approach to improving the highway's safety and performance. If interchanges are removed, it will be extremely important for drivers to sense that the highway's safety and performance improved.

One of the main problems on OR 217 is the short spacing between interchanges. This short spacing creates bottlenecks and high crash locations as drivers change lanes from entrance ramps to the mainline, weaving with drivers moving from the mainline to exit lanes.

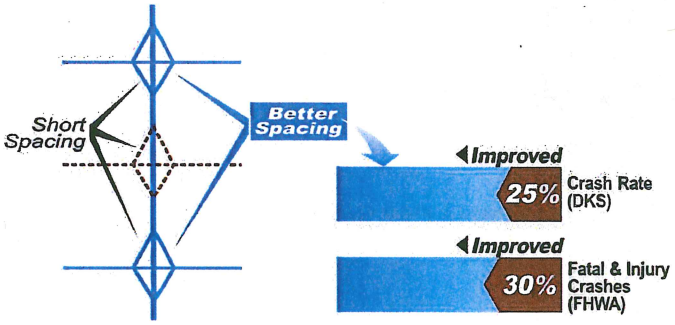


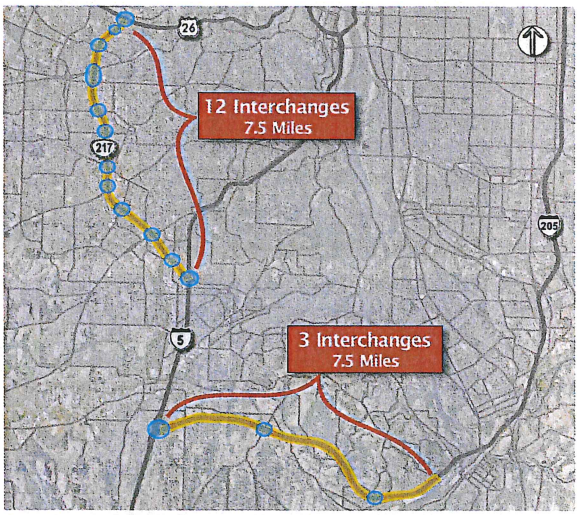
Comparing OR 217 to the southern portion of I-205 (from I-5 to West Linn), which has more space between interchanges, I-205 can accommodate 10 to 15 percent more traffic than OR 217.

ODOT's number one concern for freeway traffic is safety. Adequate spacing between interchanges has proven to increase safety benefits. The Federal Highway Administration (FHWA) conducted studies regarding the relationship between interchange spacing and safety.

Removing an interchange can decrease fatal and injury crashes by about 30 percent.

Complementary street improvements are required with each of the ramp closure options as appropriate to create a balanced transportation system.





The ramp management strategy may have the potential to eliminate the need for expensive capital projects identified in previous studies.

Summary of Options

System management project options

Project No.	Systems Management	Cost Estimate* (millions)
	TARGETED SHOULDER WIDENING	
1	Southbound from Scholls Ferry Rd to Greenburg Rd	$2.0 to $10.0
2	Northbound from Scholls Ferry Rd to Denney Rd	
3	Northbound from Greenburg Rd to Scholls Ferry Rd	
4	Southbound from Denney Rd to Hall Blvd	
5	Southbound from Allen Blvd to Denney Rd	
6	Southbound from Beaverton Hillsdale Hwy to Allen	
	All six locations	$25.0
	TRAVELER INFORMATION	
1	US 26 westbound – 1 sign	$1.0 to $3.0
2	I-5 southbound – 1 sign	
3	Washington Square Regional Center – 5 signs	
4	Beaverton Regional Center – 3 signs	
	All 10 signs	$6.0
	VARIABLE SPEED SYSTEM	
n/a	Post Mounted – Both sides of the roadway	$10 to $15

Source: DKS Associates and HHPR
*Cost estimate in 2010 dollars

Targeted shoulder widening projects:

The targeted shoulder widening projects focus on locations with high crash rates, locations that provide direct access for emergency vehicles, and locations that avoid structural and wetland issues.

- Each location could be implemented individually, or several of them could be grouped together.

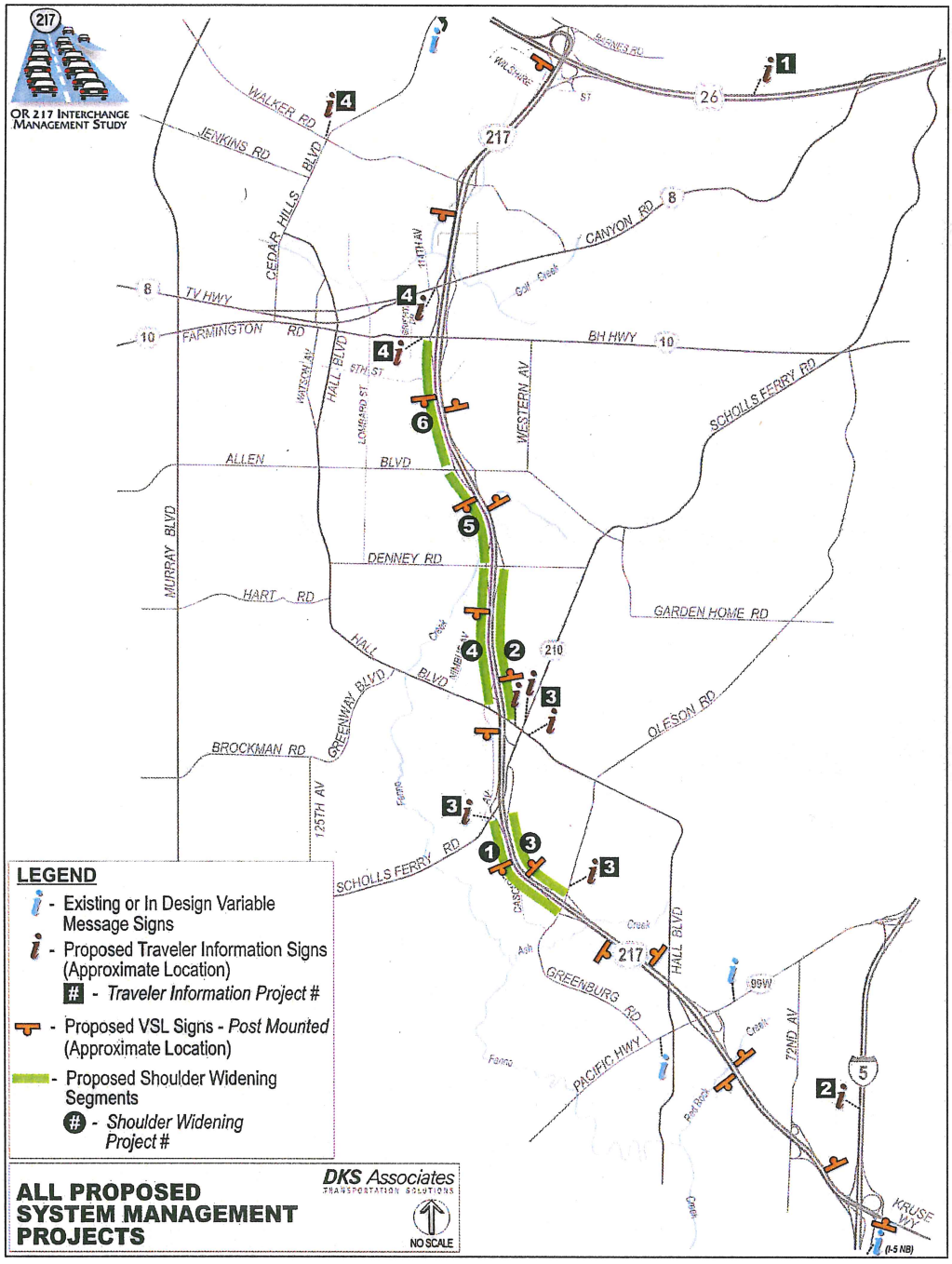
Traveler information projects

Locations are based on origin-destination data, focusing on trip combinations and sites with the greatest number of trips.

- Sign locations could be implemented individually, or grouped together depending on available funding.

Variable Speed System

- South bound variable speed system could be implemented before the other direction, further lowering the initial cost.



PowerPoint and Video presentation is available at the following site location
http://ftp.odot.state.or.us/outgoing/hwy217

PAMPLIN MEDIA GROUP · YOUR TOWN. YOUR PAPER

SustainableLife

Want a roof garden?

Check out what Portland is offering to people who grow 'ecoroofs' on homes, businesses

— See LIVING HERE, Inside

Wolves take off

Tualatin rolls past Aloha 33-21

— See SPORTS, A8

The Times

TIGARD | TUALATIN | SHERWOOD

THURSDAY, SEPTEMBER 16, 2010 • AN EDITION OF TIMES NEWSPAPERS • VOLUME 64, NO. 87 • 75 CENTS

Wu pitches 'smart' road signs for Hwy 217

The U.S. representative has a list of ideas on how to solve congestion problems on the highway

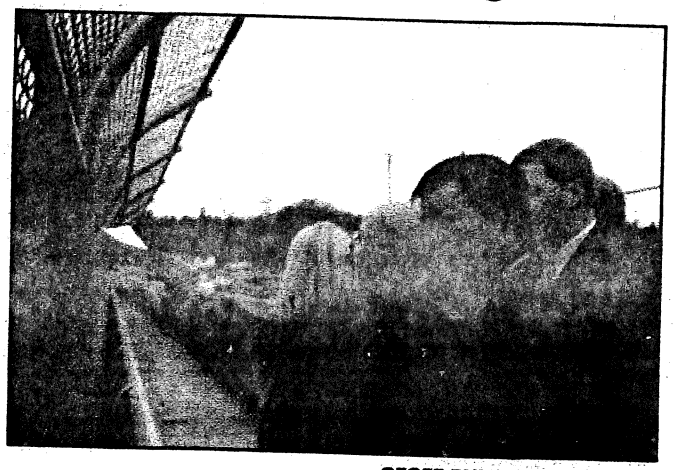
By GEOFF PURSINGER
Of Times Newspapers

The seemingly ever-present congestion along Highway 217 has long been an annoyance to motorists, but for Tualatin Valley Fire & Rescue Station 53, near Washington Square, a bad traffic jam can mean the difference between life and death.

"Incident responders are stuck in the same traffic jam as everyone else," said Jason Tell, regional manager for the Oregon Department of Transportation.

Station 53 handles the majority of traffic collisions and emergencies along Highway 217 and the surrounding area, and relies on the highway to get to where they're needed.

"Our emergency response vehicles are much bigger than a car or a truck or a motorcycle," said Cassandra Ulven, of TVF&R. "And when you try and get one of these through a crowded freeway, it's a huge challenge for us."



GEOFF PURSINGER/The Times

TRAFFIC CONTROL — U.S. representatives David Wu, center, and Peter DeFazio, left, stand on the overpass of Hall Boulevard and Highway 217 on Thursday. Wu and ODOT officials have a plan to help alleviate traffic on the highways, including using "smart" signs that can change the speed on the highway depending on traffic.

Enter U.S. Rep. David Wu. The six-term congressman, who represents Oregon's 1st District, which includes Washington County, in the U.S. House of Representatives, has a plan for bringing relief to the troubled highway and for emergency vehicles.

Wu has written a $15 million request for the upcoming highway reauthorization bill, that would be used to fund shoulder improvements along Highway 217.

"Currently, when ODOT emergency response vehicles or TVF&R firefighters are responding to a call, there are sections of Highway 217 that are impassable at peak congestion times because the shoulders are simply too narrow," he said. "We can, and we're going to try to, fix this problem immediately."

When firefighters or emergency responders are called to the scene of an accident, oftentimes there isn't enough room for motorists along Highway 217 to get out of the way, Wu said."

Having shoulders where

■ See SIGNS, A7

-over- 1

Signs: 'Europe has been using signs like this for decades'

■ Continued from A1

people can get out of the way so we can respond to a life-saving emergency and then clear the roadway is critical for us," Ulven agreed. "Each year we respond to hundreds of calls on or near 217, and our ability to get there quickly could mean the difference between life or death."

For every minute a car is stalled on 217, it takes approximately five minutes for the road to clear, Tell said.

"A short delay can make a major backup, so minutes really matter," Tell said. "And that's something that will be improved with shoulder widening."

But that's just the start for what Wu would like to see along 217, Wu said.

A recent study by ODOT and the cities along Highway 217 have pointed out two other possible solutions to solving traffic flow along the highway.

Travel-time system

The first is a travel-time system that would allow drivers to know about congestion before they enter the highway.

"As (drivers) would approach 217 there would be signs that say what the travel time is on the highway versus taking a local road or another highway," Tell said. "Right now, without that information, people get onto the highway that's already congested and then they contribute to more and more of a delay."

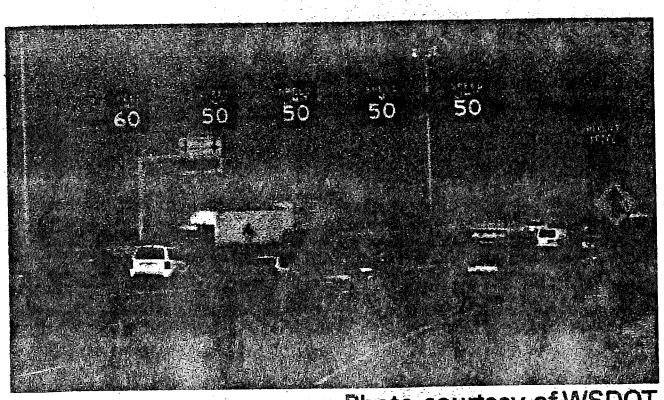


Photo courtesy of WSDOT

TRAFFIC CONTROL — Washington state's "Smart Highways" program can vary the speed limit along Interstate 5 (pictured) during congested hours, alleviating many rear-end accidents and making it safer for motorists to drive.

There are about 200 traffic collisions a year on 217, ODOT officials said. Most of which are rear-end collisions because drivers don't know there is congestion until it's too late.

Variable speed limit

The second solution is a variable speed limit along the highway, which would slow traffic down before it gets to congested portions of the highway.

"Right now, drivers don't know there's a problem until they run into the brake lights of the car in front of them," Tell said. "Through signage on the highway, we can warn people to start slowing down before they get to an accident or congestion … We can get the information to drivers so they know they should be going 35 mph or 40 mph. That will save quite a bit of travel time in the long run."

Both the travel-time signs and so-called "smart highway" speed signs are used in Washington state, along sections of Interstate 5.

Washington's smarter highway signs have been in place for about a month, Patty Michaud, with Washington State Department of Transportation said, and hard data on the signs won't be available for about a year.

"But Europe has been using signs like these for decades," she said. "And they have seen a 30 percent reduction in injury collisions. That's something that we could certainly use."

600 NE Grand Ave.
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *Memo*

Date: October 14, 2010

To: JPACT

From: Ross Roberts, Deputy Director, Planning and Development

Subject: JPACT review of regional programs: High capacity transit (HCT) bond, HCT development, & Corridor Planning

Context

JPACT has given direction to Metro staff that a review of regional projects be included as a component of the regional flexible fund allocation process. JPACT will use the information presented in the decision making process about how to allocate funds in Step 1 and Step 2.

This memorandum provides information to TPAC and JPACT to better understand the proposed FY 14-15 MTIP allocations for the following existing regional programs listed below. In addition, this memorandum summarizes the proposed changes to the long term commitment of MTIP funds to the Milwaukie LRT Project, Lake Oswego to Portland Transit Corridor Project and the SW Corridor Transit Alternatives Analysis that was adopted by JPACT on September 2, 2010.

- Proposed FY 14 & FY 15 MTIP High capacity transit (HCT) bond - $26 million
- Proposed FY 14 & FY 15 MTIP HCT Corridor Project development - $4 million
- Proposed FY 14 & FY 15 MTIP Corridor Planning - $1 million

The investment of MTIP dollars into the region's high capacity transit project planning leverages additional federal capital construction funding, transit oriented development, and place-making investments and infrastructure. The MTIP investment is not sufficient to completely fund these difficult planning and engineering activities, but it is a critical first investment in a powerful growth management and economic development strategy for the region.

I. ***Program description – what is the purpose of the program and the major activities?***

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

This region's celebrated quality of life is in no small part a result of careful transportation and land use planning. Transit is an integral part of the region's culture and identity. For 30 years the region has made light rail transit, now supplemented with commuter rail, the basis for the regional high

capacity transit (HCT) system. Each addition has had exponential benefits and the system must be completed if it is to respond to the region's continued growth.

Historically, the region has supported HCT project development activities using MTIP funds and various local funding sources. For the FY 2010-2013 MTIP Cycles, the region chose to support the federal Alternatives Analysis for the Portland-Milwaukie LRT and the Lake Oswego to Portland Transit Corridor Project. This funding helped keep the pace of the projects going when federal AA funding was not immediately available. This allowed the preparatory work necessary for the projects to be competitive to win federal funding when the opportunities arose and to maintain a steady flow of projects advancing in the region.

The proposed MTIP funding approach for the HCT Program would provide supplemental capital resources through TriMet bonding for the Milwaukie LRT Project. This supplemental bonded MTIP funding would also be applied to initiate and continue project development for the region's list of 16 high capacity transit projects. Specifically, $6 million total would be allocated to initiating SW Transit Corridor Alternatives Analysis and $6 million total would be allocated to continuing project development through the PE/FEIS phase of the Lake Oswego to Portland Transit Corridor Project. The proposed allocation was adopted by JPACT on September 2, 2010, and is scheduled to go before the Metro Council for adoption on October 7, 2010. The following chart describes the proposed commitment through FY27 (Exhibit A from Resolution 10-4185).

Supplemental Multi-Year Commitment of Regional Flexible Funds for Portland-Milwaukie Light Rail Transit Project, Commuter Rail Project, and Project Development Activities for the Lake Oswego Transit Project and Southwest Corridor

1. The multi-year commitment of regional flexible funds for the region's high capacity transit program was last approved by Resolution No. 08-3942 and implemented by the intergovernmental agreement approved by Resolution No. 10-4133. The amounts previously approved and shown in Table 1, Column A below are proposed to be supplemented to include the amounts shown in Column B to provide the total amounts shown in Column C. As used in this resolution, the term "regional flexible funds" includes urban Surface Transportation Program (STP) and Congestion Mitigation Air Quality (CMAQ) funds, or any successor or replacement federal funding programs, allocated by formula or agreement to the Portland metropolitan region. The MTIP will be amended to program these supplemental regional flexible funds for use by TriMet.

2. Subject to approval of the supplemental contribution of regional flexible funds shown in Column B of Table 1, TriMet will prepare and implement a financing program, in accordance with the project development schedule for the Portland-Milwaukie Light Rail Transit Project, to provide through direct federal grants of regional flexible funds from Column C of Table 1 or equivalent amounts of its general funds, or a borrowing strategy employing regional flexible funds shown in Column C of Table 1 or equivalent amounts of general funds, or a combination thereof, the following amounts to the uses stated below in Table 2.

Table 1: Multi-Year Commitment of Regional Flexible Funds

	A	B	C
Fiscal Year	**Regional Flexible Funds Committed to Portland-Milwaukie LRT and Commuter Rail, Projects under Res. Nos. 08-3942 and 10-4133**	**Supplemental Commitment of Regional Flexible Funds for Portland-Milwaukie LRT Project and Other HCT Development Activities under Res. No. 10-4185**	**Total Amount of Regional Flexible Funds Committed to TriMet for Portland-Milwaukie LRT Project, and Other HCT Development Activities**
2012	$3,700,000		$3,700,000
2013	$3,700,000		$3,700,000
2014	$3,700,000	$2,000,000	$5,700,000
2015	$3,700,000	$2,000,000	$5,700,000
2016	$13,000,000	$3,000,000	$16,000,000
2017	$13,000,000	$3,000,000	$16,000,000
2018	$13,000,000	$3,000,000	$16,000,000
2019	$13,000,000	$3,000,000	$16,000,000
2020	$13,000,000	$3,000,000	$16,000,000
2021	$13,000,000	$3,000,000	$16,000,000
2022	$13,000,000	$3,000,000	$16,000,000
2023	$13,000,000	$3,000,000	$16,000,000
2024	$13,000,000	$3,000,000	$16,000,000
2025	$13,000,000	$3,000,000	$16,000,000
2026		$16,000,000	$16,000,000
2027		$16,000,000	$16,000,000
	$144,800,000	**$66,000,000**	**$210,800,000**

Table 2: Contributions to Projects ($ Millions)

Project/Activity	Existing Contribution	Additional Contribution under Res. No. 10-4185 [this reso]	Total Contribution
Portland-Milwaukie Light Rail Transit Project	$72.5	$27.4	$99.9
Repayment to TriMet of Amounts Advanced for Commuter Rail Project	$13.3		$13.3
Portland-Lake Oswego Corridor Transit Project: for activities related to preparation of Preliminary Engineering and Environmental Impact Studies		$6.0	$6.0
Southwest Corridor for activities related to preparation of Alternatives Analysis, Preliminary Engineering, and Environmental Impact Studies		$6.0	$6.0
	$85.8	$39.4	$125.2

The amount shown above for the Portland-Milwaukie Light Rail Transit Project may be increased if financing terms allow.

3. A mix of Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) funds that corresponds to the needs of TriMet's financing program will be used to fulfill the multi-year commitment of funds. Representatives of Metro and TriMet will cooperatively determine the appropriate mix of CMAQ and STP funds required by TriMet's financing program that will be used to fulfill the multi-year commitment of regional flexible funds.

4. TriMet intends to issue bonds secured in part by the annual amounts of regional flexible funds shown in Table 1 of this Exhibit A. Accordingly, the annual amounts shown in Column C of Table 1 are fully committed to TriMet in the amounts and during years indicated; subject only to authorization and appropriation of regional flexible funds by the federal government and the terms and conditions of existing intergovernmental agreement between Metro and TriMet approved by Resolution No. 10-4133.

b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

The Corridor Refinement Plan Work Program was adopted as an amendment to the Regional Transportation Plan in the fall of 2001 (Resolution 01-3089). MTIP funding for the Next Corridors program has been the vehicle through which Metro has partially funded refinement planning within these corridors. MTIP funding has generally been at the level of $500,000 every two years. This sum has remained constant over the past ten years, although the cost and complexity of corridor plans has increased. For the FY06 & FY07 and FY08 & FY09 cycles, this funding was directed to the High Capacity Transit System Plan to prioritize the next 30 years of high capacity investments. For the FY08 and FY09 cycles, this funding was directed to the Southwest and East Metro Corridor Refinement Plans (see the table below for previous and future obligations and requests).

The 2035 RTP introduced the concept of regional mobility corridors, expanding the region's focus on mobility from individual facilities to the network of facilities and the adjacent land uses they serve. The 24 mobility corridors provide a framework for consideration of multiple facilities, modes and land use when identifying needs and most effective mix of land use and transportation solutions to improve mobility within a specific corridor area. This emphasizes the integration of land use and transportation in determining regional system needs, functions, desired outcomes, performance measures, and investment strategies. At the same time, the mobility corridors are being used to satisfy state requirements for demonstrating the adequacy of the region's transportation system and its planned land uses.

Metro Council approved Resolution 10-4119 on February 25, 2010, which prioritized two corridors for refinements planning: Mobility Corridor #15 (East Metro Connections Plan) and Mobility Corridors #2 and #20 (the Southwest Corridor Refinement Plan).

The estimated costs and time to complete these two refinement plans, is approximately $3.3 million over the next three years. Available MTIP funding won't, nor is it expected to, cover the entire amount of these plans. Other sources could include Transportation Growth Management funds, federal grant funds, and local contributions. The Southwest Corridor may require some amount of the FY 12/13 MTIP funds for completion.

Fiscal Years	**Activity**	**Amount Spent, Underway, or Requested**
FY02 & FY03	I-5 Trade Corridor – spent	$ 250,000
FY04 & FY05	Powell/Foster – spent	$ 300,000
FY06 &FY07	High Capacity Transit System Plan - spent	$ 500,000
FY08 & FY09	High Capacity Transit System Plan - spent	$ 500,000
FY10 & FY11	Southwest and East Metro – underway	$ 500,000
FY12 & FY13	Next Corridor and Advance Work – committed	$ 500,000
FY14 & FY15	New request - Next Corridor and Advance Work	$ 1,000,000

II. *Regional Funding Strategy Context – why is your program appropriate for regional flexible funding*

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

In the RTP Finance Approach Chart, Regional Flexible Funds are listed under the "existing funding sources" for High Capacity Transit expansion. HCT, as defined in the RTP[1], is a regional investment, serving regional destinations.

b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

In the RTP Finance Approach Chart, Regional Flexible Funds are listed under the "existing funding sources" for those subject matters studied during Mobility Corridor Refinement Plan: Main Street/Boulevard multi-modal retrofit, Active Transportation, HCT expansion, TSMO, and Land Use – TOD. In addition, a Mobility Corridor Refinement Plan covers subjects not currently funded under regional flexible funds: Arterial Expansion and Highway expansion. The Corridor Planning efforts implement a more detailed study for areas that require further analysis, as identified in the 2035 RTP.

III. *Which of the stated performance targets in the RTP does your program relate to/ help meet?*

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

According to the RTP Performance Measures, the High Capacity Transit Bond and Development funds will serve to:

- reduce vehicle hours of delay (VHD) per person
- reduce transportation-related carbon dioxide emissions
- increase walking, biking and transit mode share
- increase the number of essential destinations[2] accessible within 30 minutes by trails, bicycling and public transit
- reduce percent population exposure to at-risk levels of air pollution
- reduce vehicle miles traveled per person
- reduce the average household combined cost of housing and transportation

[1] HCT investments help the region concentrate development and growth in its centers and corridors. The regional transit system concept call for fast and reliable HCT service between the central city and regional centers. HCT service carries high valumnes of passengers quickly and efficiently and serves a regional travel market with relatively long trip lengths to provide a viable alternative to the automobile in terms of convenience and travel times.

[2] Consistent with the evaluation methodology used for the High Capacity Transit plan, essential destinations are defined as: hospitals and medical centers, major retail sites, grocery stores, elementary, middle and high schools, pharmacies, parks/open spaces, major social service centers (with more than 200 monthly LIFT pick-up counts), colleges and universities, employers with greater than 1,500 employees, sports and attraction sites and major government sites.

- increase the number of essential destinations accessible within 30 minutes by bicycling and public transit for low-income, minority, senior and disabled populations

b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

According to the RTP Performance Measures, subject matters studied during Mobility Corridor Refinement Plan will serve to:

- reduce the number of pedestrian, bicyclist, and motor vehicle occupant fatalities plus serious injuries
- reduce vehicle hours of delay (VHD) per person
- reduce vehicle hours of delay truck trip
- reduce transportation-related carbon dioxide emissions
- increase walking, biking and transit mode share
- increase the number of essential destinations accessible within 30 minutes by trails, bicycling and public transit
- reduce percent population exposure to at-risk levels of air pollution
- reduce vehicle miles traveled per person
- reduce the average household combined cost of housing and transportation
- increase the number of essential destinations accessible within 30 minutes by bicycling and public transit for low-income, minority, senior and disabled populations

IV. *Program strategic plan or recent planning work completed to date – What guides the program/helps set priorities for implementation?*

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

In 2009, Metro developed a 30-year *Regional High Capacity Transit System (HCT) Plan* to guide investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the Portland metro region as a component of the *2035 Regional Transportation Plan (RTP).* The Plan ranked 16 potential high capacity transit corridors in four regional priority tiers and created a framework for future system expansion. With the completion of this plan, the region achieved a clear, consensus based plan on which projects should advance for the next 30 years.

The System Expansion Policy clearly states how corridors can advance to become higher priorities for the region, including land use, development and other criteria that support place-making in centers and corridors. Application of the System Expansion Policy results in an objective process that focuses on creating the great places that high capacity transit can support.

b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

The 2035 Regional Transportation Plan ("RTP"), adopted on June 10, 2010 by Metro Council Ordinance No. 10-1241A, identifies five corridors where more analysis is needed through future corridor refinement plans. The Southwest Corridor Refinement Plan and the East Metro Corridor Refinement Plan are located in two of the five mobility corridor refinement planning areas identified

in the RTP. Proceeding forward with these two mobility corridor refinement plans was approved on January 14, 2010 by the Joint Policy Advisory Committee on Transportation (JPACT) and on February 25, 2010 by the Metro Council by Resolution No. 10-4119:

1. Southwest Corridor Refinement Plan - Mobility Corridors #2 and # 20 (in the vicinity of I-5/Barbur Blvd, from Portland Central City to approximately the "Tigard Triangle" located at the intersection of I-5, OR 99W, and Hwy. 217); and

2. East Metro Corridor Refinement Plan - Mobility Corridor #15 (the segment in the East Metro area from I-84 southward to US 26 and the Springwater area).

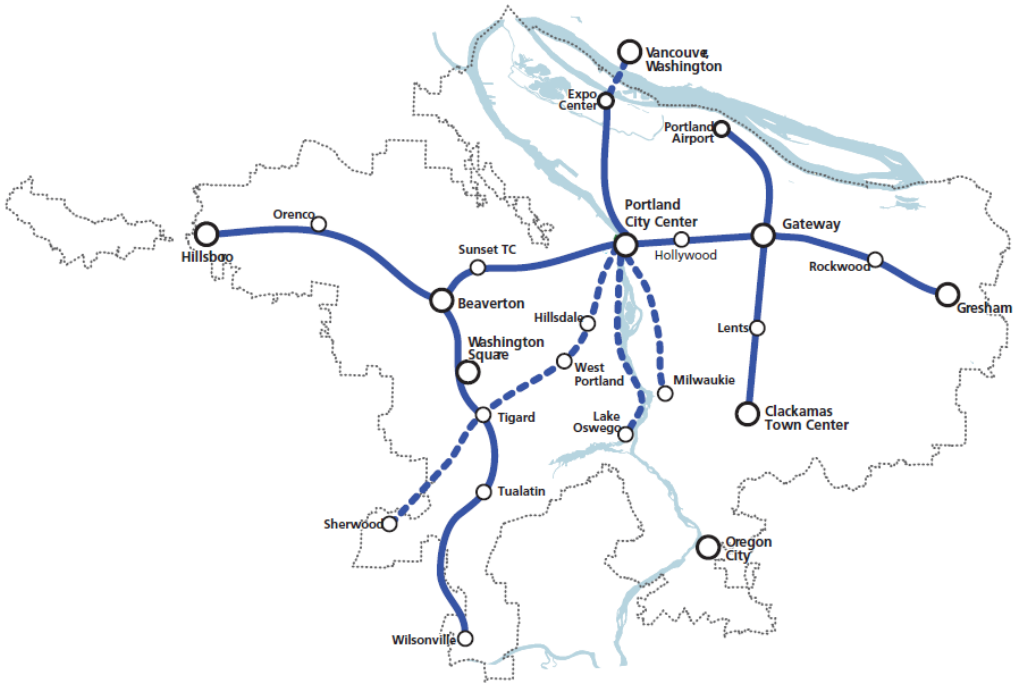
These corridors emerged as top candidates for mobility corridor refinement planning based on a combination of technical factors and local support, urgency and readiness. Development of the technical and local support factors, as well as the rating and ranking of candidate corridors, was conducted in a months-long collaboration with regional partners, and is evidence of agreement on priorities for the next four years. MTIP funding was allocated for these corridor refinement plans on August 12, 2010 in Resolution 10-4177 by Metro council, as endorsed by JPACT.

V. *Program performance to date – what are the specific accomplishments of the program?*

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

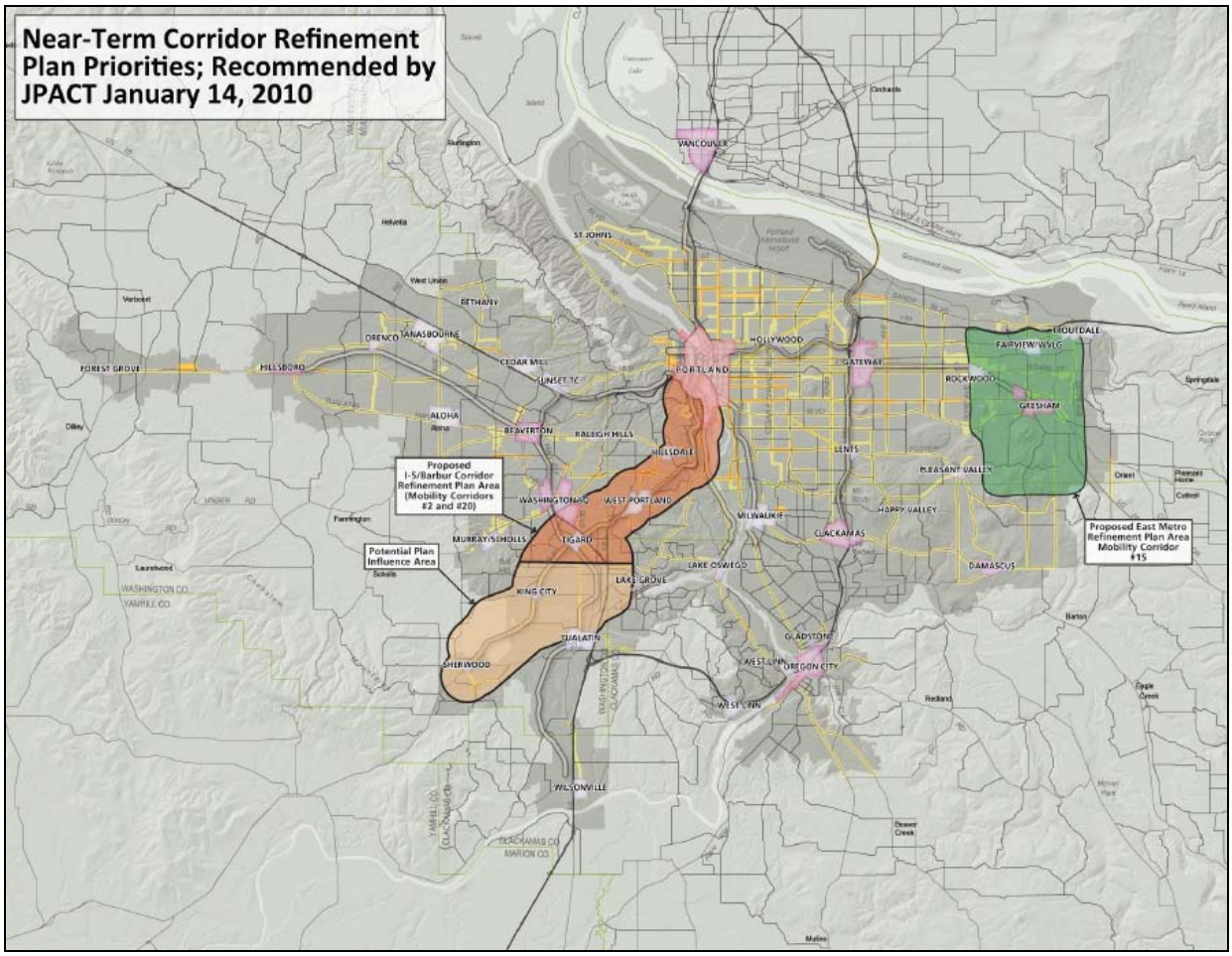
With the High Capacity Transit Bonds, the region has built the Interstate LRT, I-205/Mall LRT, WES, and will build the Milwaukie LRT.

With the High Capacity Transit Development funds, the region will help complete the Lake Oswego Transit DEIS and FEIS and initiate the Southwest Corridor Transit Alternatives Analysis. Existing and proposed light rail, commuter rail and rapid streetcar projects are shown below in Figure 1.



b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

With the Corridor Planning funds, the region will help complete the East Metro Connections Plan and Southwest Corridor Refinement plan in conjunction with local, regional and state partners. The corridor study areas are shown in Figure 2 below.



VI. *How does your program leverage other benefits or resources?*

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

The Portland region has successfully secured nearly $1.6 billion in federal funds for light rail projects during the last three decades. The majority of these funds were competitively sought through the Federal Transit Administration's (FTA) New Starts discretionary program and designated specifically for rail transit projects, as shown on the chart below. Milwaukie LRT is scheduled to receive 50 percent federal funding.

Historical LRT Funding Shares

	FTA New Starts	TriMet GO Bonds and other Funding Commitments	Lottery Bonds & other State Funding Commitments	FHWA Flexed Funds	Local	Total
Banfield LRT & Highway		33%	21%	45%	1%	100%
Westside LRT	65%	17%	14%	2%	1%	100%
Airport LRT		22%		14%	64%	100%
Interstate LRT	74%	11%		7%	9%	100%
Clackamas/Mall LRT	60%	5%	4%	11%	19%	100%
Commuter Rail	50%	33%		10%	7%	100%

High Capacity Transit became an important transportation choice for the region when faced with the destruction of established neighborhoods that a new freeway would cause and continue to support regional values on many other levels. A 2006 survey of regional residents asked what they thought would be the three issues facing the region in 10 years, fourth of the top five issues mentioned benefit from high capacity transit: traffic, congestions and transportation, the economy and jobs, population and growth, and environmental quality.

b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

Southwest Corridor

The Southwest Corridor Refinement Plan is being conducted in the context of an overall Southwest Corridor Plan. The Plan incorporates several land use and transportation planning projects into one contiguous and efficient planning effort. This project would leverage Metro general fund & local land use and funds of $ 1.4 million. The outcome of the combined effort will result in a community investment strategy and preparation for multimodal projects, including HCT, to advance into the next stage of project development.

The Southwest Corridor Plan comprises and leverages the following local and state funded plans:

- Southwest Corridor Transit Alternatives Analysis (Metro, ODOT & TriMet)
- Southwest Corridor Refinement Plan (Metro, ODOT & TriMet)
- Barbur Concept Plan (City of Portland)
- 99W Land Use Plan (City of Tigard)
- 99W Corridor Planning (City of Tualatin)

The East Metro Connections Plan

The East Metro Connections Plan brings resources and focus to a corridor that will assist with developing and realizing local transportation and land use plans. It can also leverage other resources in terms of additional follow on studies and multi-modal project development. This planning effort will result in a community investment strategy for the East Metro area that includes transportation and other local infrastructure to support place-making and development in centers and corridors in support of local land use and development plans and community aspirations.

VII. ***Do you have a strategy for growing the program and what additional outcomes would that growth achieve?***

a) High Capacity Transit Bond (Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT) **and High Capacity Transit Development** (Lake Oswego Transit DEIS/FEIS and Southwest Corridor Transit Alternatives Analysis)

The goal with the on-going high capacity bond and development program in MTIP is to complete the development of high capacity transit system in the region as identified in the *2035 Regional Transportation Plan*. The program will continue to seek the same percentage of funds given historically to the HCT bonds and development to maintain and implement the program. The program would continue to seek other funds to perform additional work on these studies, such as Federal Transit Administration Alternatives Analysis funding, Transportation Growth Management, enhancement and other federal grants and local match.

b) Corridor Planning (East Metro Connections Plan and Southwest Corridor Refinement Plan)

The goal with the on-going corridor planning program in MTIP is to complete the transportation system plan in these corridors through identification of the need, mode, function and general location. The program would continue to seek other funds to perform additional work on these and other related and follow on corridor studies, such as Federal Transit Administration Alternatives Analysis funding, Transportation Growth Management, enhancement and other federal grants and local match. A primary outcome of the corridor studies would be identification of projects and agreement around actions to solve the problem. Metro and partner jurisdictions would then seek to move into project development and ultimately design and construction of priority capital projects or implementation of programs.

Materials following this page were distributed at the meeting.

High Capacity Bond
High Capacity Transit Development
&
Corridor Planning

JPACT, October 14, 2010

Ross Roberts

Metro

FY14 & FY 15 MTIP RFFA
High Capacity Transit (HCT) Bond
High Capacity Transit Development



Metro

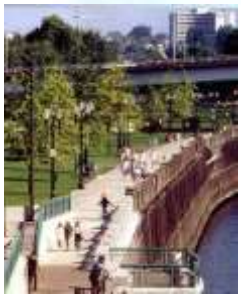
Regional Transit Program Beginnings

A backlash formed against a plan for massive freeways through urban neighborhoods

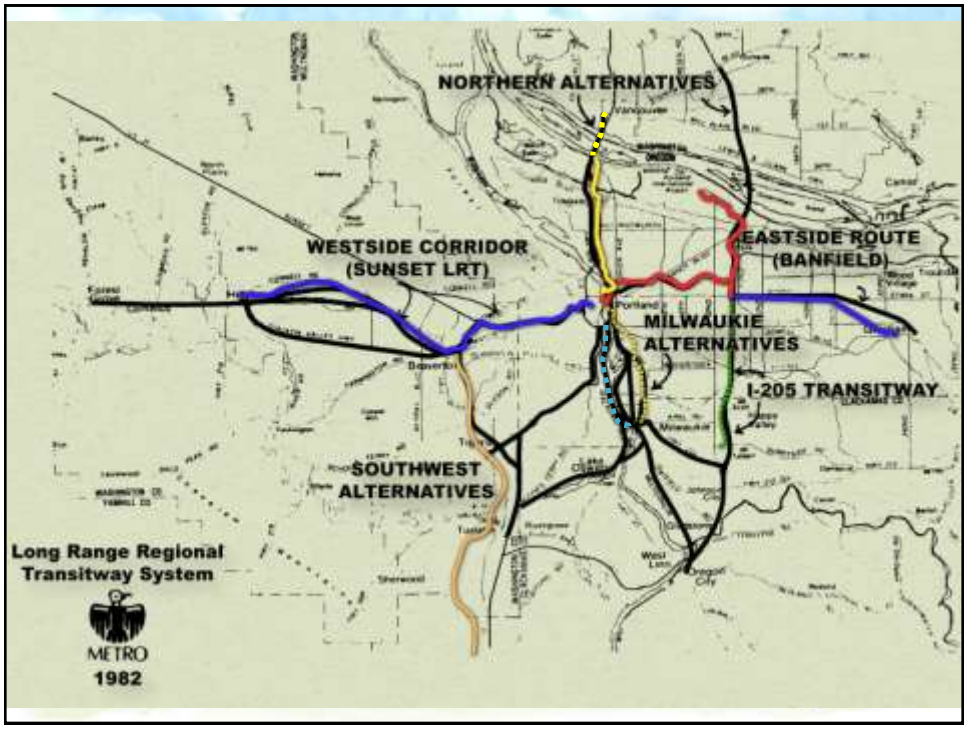
Metro

The ORIGINAL Flex funds!

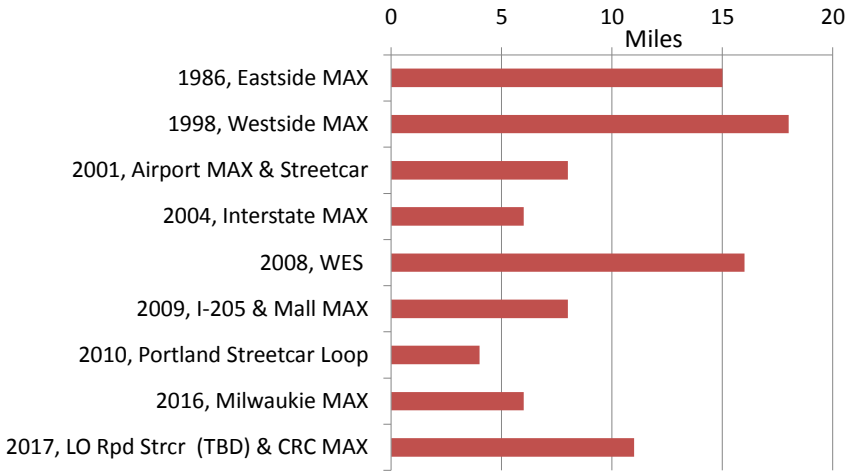
- Harbor Freeway removed in 1976 to make way for Tom McCall Waterfront Park
- Shift freeway money to multi-modal projects



Metro



90 miles of High Capacity Transit and Streetcar



Metro

Program performance to date

Accomplishments of the program

- Leverages modest investment of regional funds for project development into billions of dollars in rail construction
- Fosters development in 2040 centers and corridors and is the region's key mobility strategy



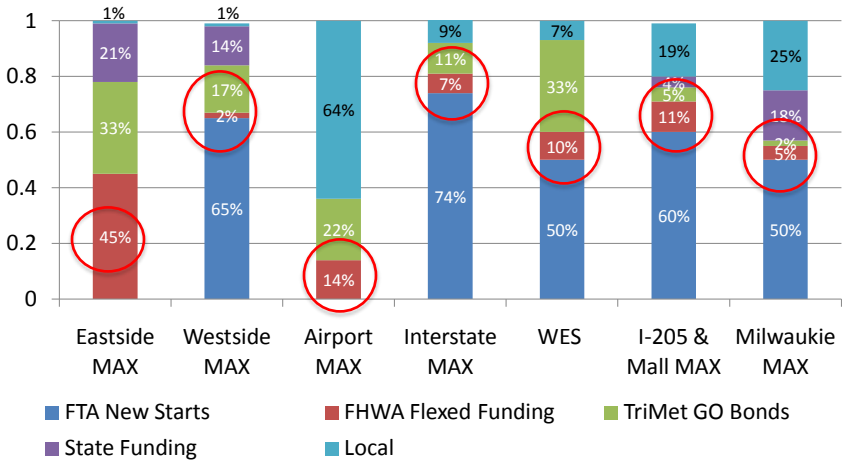
Regional Funding Strategy Context

HCT program is appropriate for regional flexible funding

- Regional Flexible Funds are listed under the "existing funding sources" for HCT expansion in RTP
- Regional investment
- Provides fast and reliable service
- Serves high volumes of passengers
- Provides viable alternative to automobile in convenience and travel times
- helps concentrate development and growth in its centers and corridors

Leveraging – Regional Flex Funds

Nearly $1.6 billion in federal funds for HCT projects



Metro

MTIP FY 14 & FY 15

FY14 & FY15 MTIP HCT Bond

-- $26 million:

– Bond payments for regional contribution toward Interstate LRT, I-205/Mall LRT, WES, and Milwaukie LRT

- FY14 & FY15 MTIP HCT Project Development

-- $4 million – first two years of supplemental funding stream for TriMet bonds

– Bonding provides $6M for Lake Oswego Transit PE and FEIS and $6M for SW Corridor AA in FY 11 or FY 12

Metro

Program description: funding

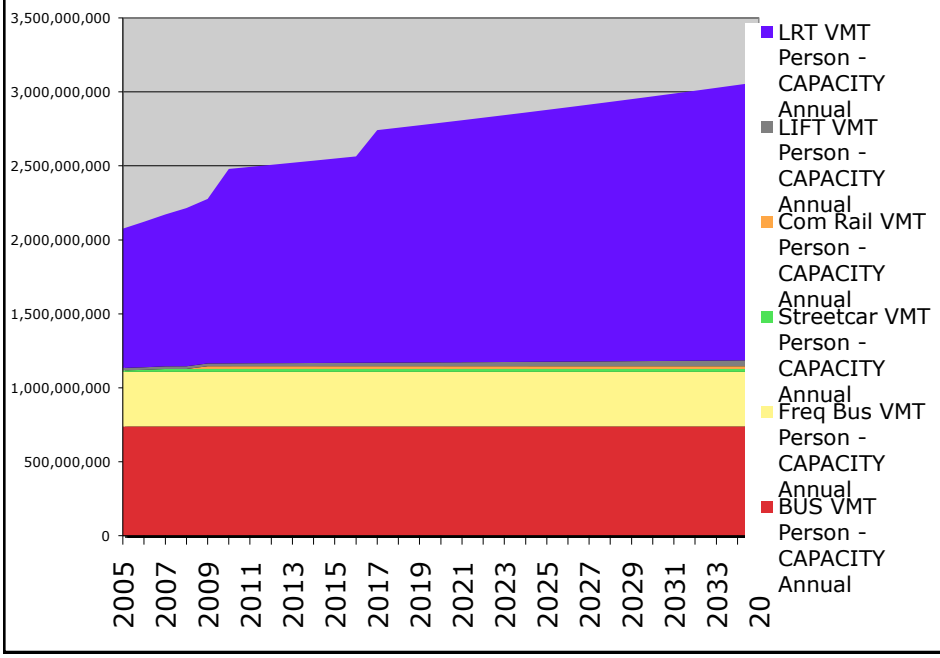
		Proposed					
FISCAL YEAR	Existing Commitment of Flex Funds to GARVEE Bonds	Proposed Commitment of Supplemental Flex Funds to GARVEE Bond for Milwaukie LRT	Proposed Commitment of Supplemental Flex Funds to GARVEE Bond for Corridor Studies [3]	Proposed Flex Funds Target Amount for Transit Corridor Development (Non-GARVEE Bonded) [4]	Total Amount Committed/ Targeted Under Proposal	Regional Flex Funds	% of Regional Flex Funds in GARVEE + Corridor Studies
2012	$13.0			$2.0	$15.0	$32.3	46%
2013	$13.0			$2.0	$15.0	$32.9	46%
2014	$13.0		$2.0	Note [5]	$15.0	$33.6	45%
2015	$13.0		$2.0	Note [5]	$15.0	$34.3	44%
2016	$13.0	$1.0	$2.0	Note [5]	$16.0	$35.0	46%
2017	$13.0	$1.0	$2.0	Note [5]	$16.0	$35.7	45%
2018	$13.0	$1.0	$2.0	Note [5]	$16.0	$36.4	44%
2019	$13.0	$1.0	$2.0	Note [5]	$16.0	$37.1	43%
2020	$13.0	$1.0	$2.0	Note [5]	$16.0	$37.8	42%
2021	$13.0	$1.0	$2.0	Note [5]	$16.0	$38.6	41%
2022	$13.0	$3.0		$2.0	$18.0	$39.4	46%
2023	$13.0	$3.0		$2.0	$18.0	$40.2	45%
2024	$13.0	$3.0		$2.0	$18.0	$41.0	44%
2025	$13.0	$3.0		$2.0	$18.0	$41.8	43%
2026		$16.0		$2.0	$18.0	$42.6	42%
2027		$16.0		$2.0	$18.0	$43.5	41%
Total	$182.0	$50.0	$16.0	$16.0	$264.0		

2035 Regional Transportation Plan

Regional high capacity transit system plan

Metro

Projected Service Capacity Increase



Related RTP performance targets

- reduce vehicle hours of delay (VHD) per person
- reduce transportation-related carbon dioxide emissions
- increase walking, biking and transit mode share
- increase the number of essential destinations accessible within 30 minutes by trails, bicycling and public transit for low-income, minority, senior and disabled populations
- reduce percent population exposure to at-risk levels of air pollution
- reduce vehicle miles traveled per person
- reduce the average household combined cost of housing and transportation

Corridor Planning



Metro

Mobility Corridors

Program description:

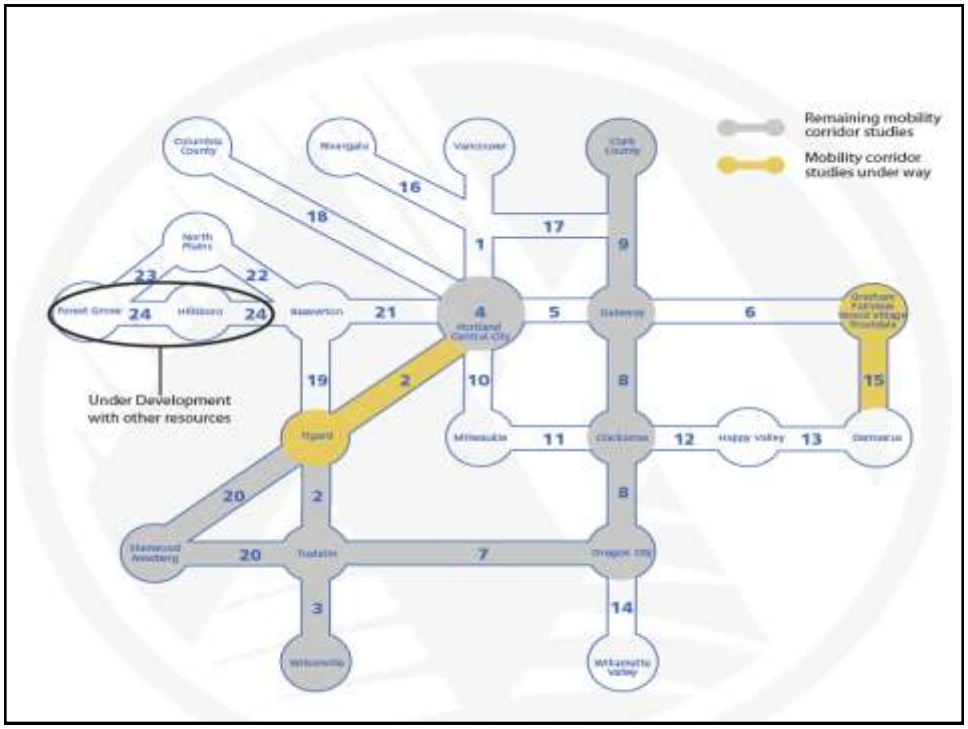
- Achieve mobility through network of facilities and the adjacent land uses
- Integration of land use and transportation in determining regional system functions, needs, and investment strategies
- Satisfy state requirements for demonstrating the adequacy of the region's transportation system and its planned land uses



2035 REGIONAL TRANSPORTATION PLAN

- JPACT and Metro Council selected **SW Corridor** and **East Metro** as top priorities through FY 12
- Proposed **FY14 & FY15 MTIP** Corridor & Systems Planning - **$1 million**
- **2035 RTP** identifies **5 mobility corridors** for further analysis
  - **Future** mobility corridor refinement plans
    - Tigard-Wilsonville-Sherwood
    - Clark County-Gateway-Oregon City-Tualatin
    - Portland Central City loop

Metro



Past, future and requested allocations

Fiscal Years	Activity	Amount Spent, Underway, or Requested
FY02 & FY03	I-5 Trade Corridor – complete	$ 250,000
FY04 & FY05	Powell/Foster – complete	$ 300,000
FY06 &FY07	High Capacity Transit System Plan - complete	$ 500,000
FY08 & FY09	High Capacity Transit System Plan -	$ 500,000
FY10 & FY11	Southwest and East Metro – underway	$ 500,000
FY12 & FY13	Next Corridor and Advance Work – committed	$ 500,000
FY14 & FY15	New request - Next Corridor and Advance Work	$ 1,000,000

Metro

Previous Corridor Studies

- Recommendations adopted into local TSPs and Regional Transportation Plan
- Project development commenced on multimodal local and regional priorities

East Metro Connections Plan

- Supports the aspirations of 7 activity centers
- Cost-effective solutions to connect industrial, employment, and residential areas
- Connects with numerous trails and natural areas

Photo: J. Maus

Metro

Southwest Corridor Plan

- Land and use and transportation plan
- Leverage Metro general fund & local land use and funds of $ 1.4 million
- Sets stage for future HCT Alternatives Analysis

Metro

Metro

The Lake Oswego to Portland Streetcar Extension

R A Fontes October 14, 2010 rfontes@q.com

Compared to current bus, streetcar will be more expensive to operate, less convenient, and cost the average rider about 30 minutes every round trip.

Project estimates claim that growing congestion will bring much slower bus trip times than those for streetcar and that extraordinary corridor ridership growth will make streetcar cost-effective. Are these claims realistic?

Underlying trends and demographics call for transportation stability in the corridor, not rapid growth.

Jobs are migrating from Multnomah to suburban counties.

Table 1: Employment by County

	Jan 2001	Dec 2009 (Preliminary)
Clackamas	132,277	138,463
Multnomah	444,684	421,888
Washington	228,610	230,911

Data from Bureau of Labor Statistics, Quarterly Census of Employment and Wages which shows data from 1/01 through 12/09.

Since 1980, a growing percentage of Americans work at home, reflecting just part of the internet revolution.

Table 2: Percentage of workers who work at home

Year	1960	1970	1980	1990	2000
Percent	7.2	3.5	2.3	3.0	3.3

Data from US Census Bureau, "All workers, and workers who worked at home for the United States: 1960 to 2000."

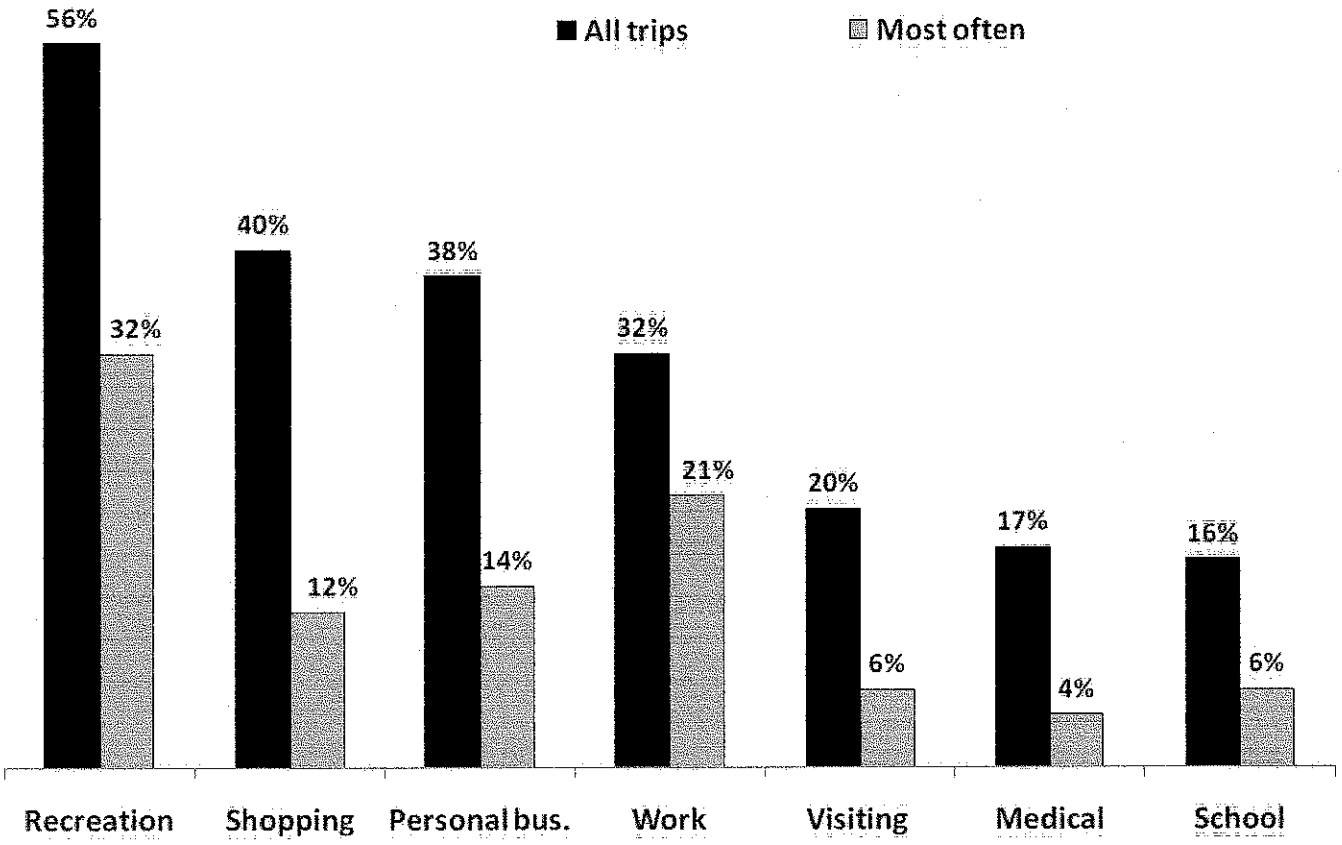
Among metro area cities with over 20,000 residents, Lake Oswego and West Linn rank 1st & 2nd in per capita income, average home value, & average age and are growing more slowly than the three county Metro area.

Table 3: Lake Oswego & West Linn statistics

	Lake Oswego	West Linn
Per capita income (in 2008 inflation-adjusted dollars:	$48,313	$45,889
Owner occupied homes - Median value (dollars)	$540,000	$452,000
Median Age	42.1	41.5
{Median Age - 2000 Census	41.2	38.1}
Population	38,835	24,378
{Population - 2000 Census	35,278	22,261}
% population change	10.1	9.5
Combined Clackamas, Multnomah, & Washington County same period % population change	10.4	

Data from US Census Bureau, 2006-2008 American Community Survey 3-year Estimates & 2000 Census

Chart 1: Transit use patterns



(Base = All riders)

Chart from Metro presentation to LO to P CAC

According to TriMet, about 11% of all trips are during the evening peak hour, and 31% during the two peak evening and two peak morning hours. So about seven out of ten rides occur during non-commute hours. As LO & WL populations age, corridor commute hour trips should decrease further relative to other trips. This is important because project trip time estimates are for the slowest peak commute hour trips only.

Available transportation data show flat to declining demand in the corridor.

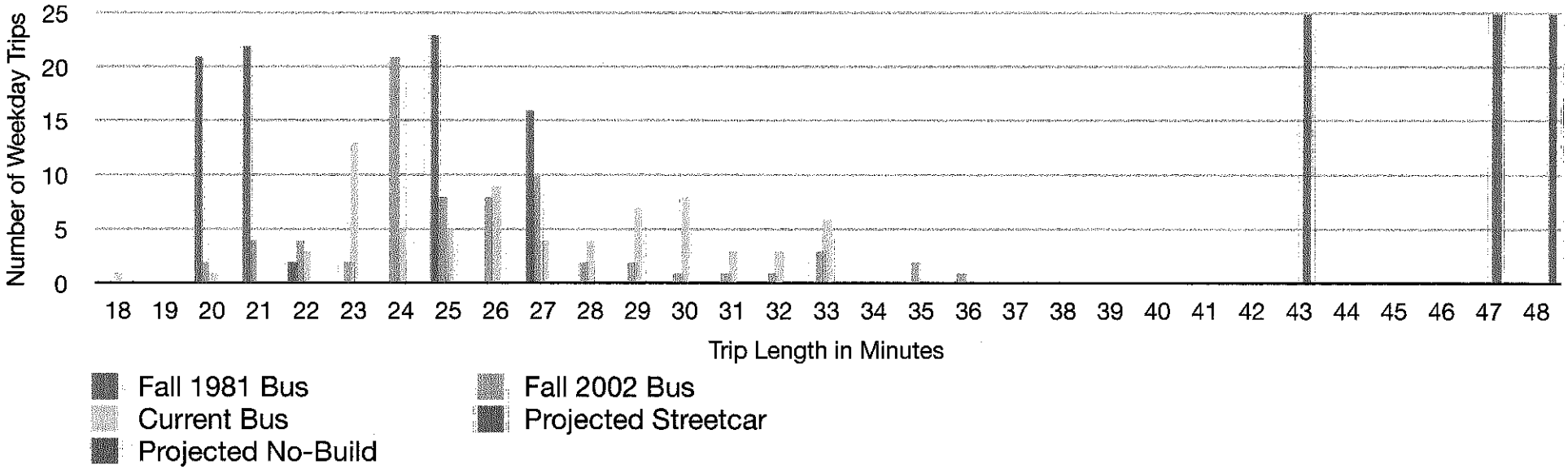
While traffic on other roads has been increasing, highway 43 counts have been going down:

Table 4: ODOT's website shows state highway data for 1993 through 2009.

	1993	2009
Hwy 43, .01(1993)/.02(2009) mile south of Julia	28,000	24,800
Hwy 43, .05 mile south of Terwilliger	28,000	24,400
I-5, .30 mile south of Haines	92,000	107,300
99W, .05 mile south of Multnomah Blvd	22,000	23,500

[note: counts show inconsistency and some stations showed gains on 43, including an apparent outlier north of Taylors Ferry.]

Chart 2: Scheduled Trip Times Between Pioneer Square & Lake Oswego Transit Center (LOTC)



Notes:

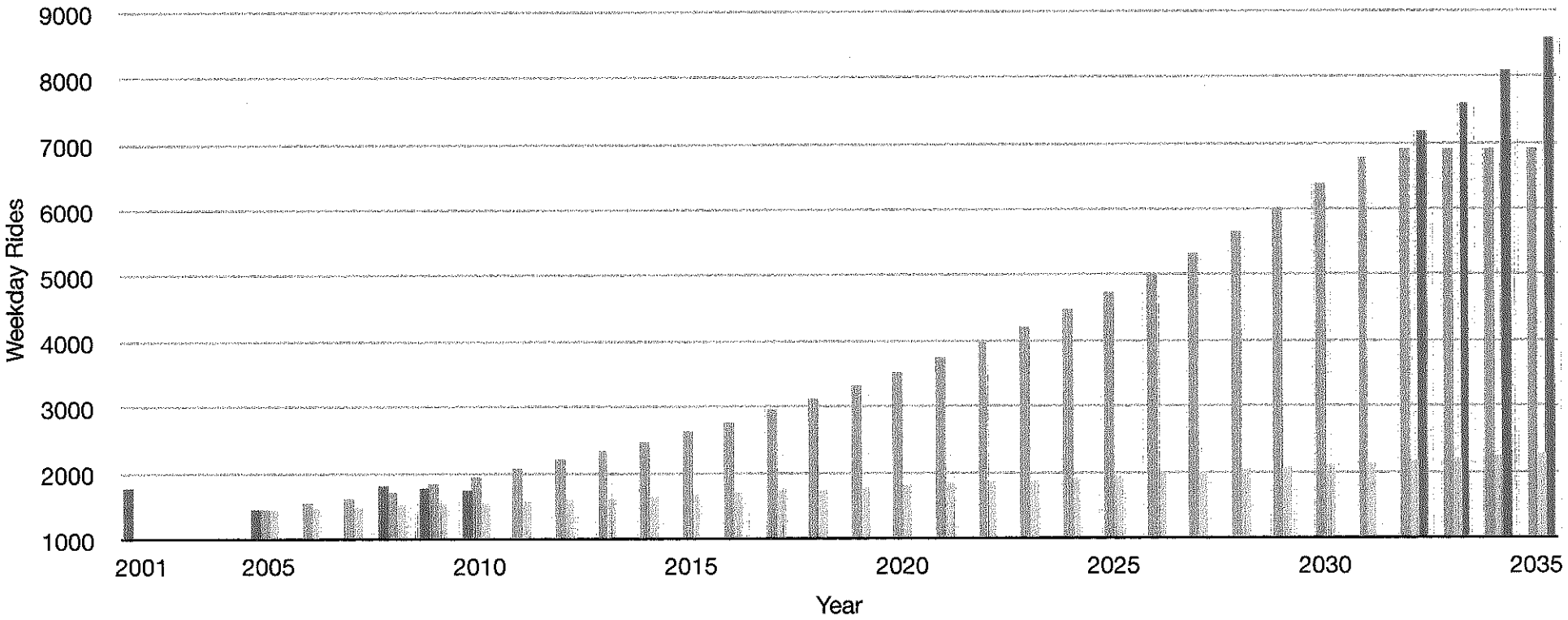
1. The chart shows currently scheduled times between the LOTC and SW Washington northbound/SW Alder southbound. Older schedules and streetcar use different stops. To allow more accurate comparisons, trip times for those services were adjusted as follows:
   - 1981 - Northbound - 1st & A instead of LOTC - added one minute; SW Salmon instead of SW Washington - added one minute; net addition - two minutes. Southbound - SW Oak instead of SW Alder - subtracted one minute; 1st & A instead of LOTC - added one minute; net - no difference.
   - 2002 - Northbound - SW Main instead of SW Washington - added two minutes. Southbound - SW Oak instead of SW Alder - subtracted one minute.
   - Streetcar - Foothills at foot of B Avenue instead of LOTC - added six minutes walking - subtracted two minutes in-vehicle; added four minutes net.
2. Since streetcar will travel mostly on its own right-of-way, trip times are uniform and the trip numbers would extend well beyond the chart's upper boundary.
3. Projected 48 minute no-build is shown at the chart limit of 25 because official projections give only that trip time. Almost all trips should be significantly shorter.

Comments:

[Metro projects "enhanced bus" to take 49 minutes for this trip, not included above.] TriMet's passenger census suggests that more people take the LOTC to Pioneer Square trip than any other corridor trip. Official projections consistently show only a single trip time, the slowest weekday run, for each option. This makes sense for transit running on exclusive right-of-way since times are consistent regardless of traffic. However, it's highly misleading for transit in traffic since the most trips take much less time than peak trips.

TriMet data shows that the quickest bus trips in the years studied only varied by two minutes; the slowest by nine. We would expect a much greater range if the slowest bus trips get anywhere near projections. In May 2009, TriMet realigned the southbound 35 & 36 through the South Waterfront, adding about three minutes per trip. It plans the same for northbound buses when conditions permit, adding about four to five minutes per trip. Northbound trips now take 18 to 27 minutes and southbound 27 to 33 minutes. On September 5, TriMet adjusted route times, shortening by three minutes northbound trips between LOTC and SW Washington and by one minute southbound trips between SW Alder and LOTC. The slowest trip lost two minutes and is now tied with five others at 33 minutes. This reflects the continuing long term drop in Highway 43 traffic reported by ODOT.

Chart 3: Route 35 & 36 Combined Ridership - Lake Oswego Transit Center Through Bancroft



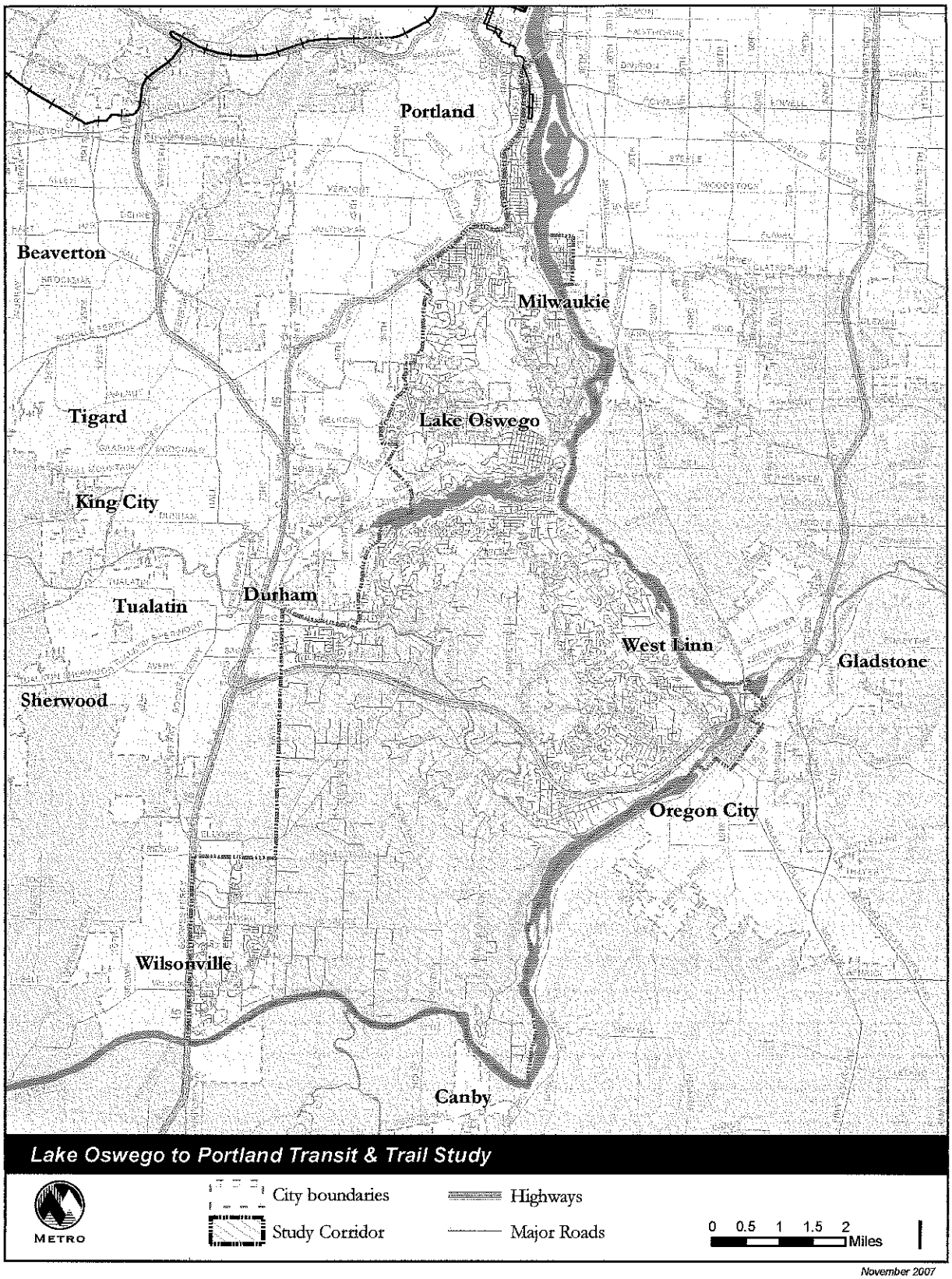
- TriMet Spring Passenger Census data
- 6.0973017% growth rate required after 2005 to meet projected no-build demand of 8,590
- TriMet's 1.5% background growth rate
- Projected demand after 6,920 no-build limit reached

Notes:

1. Actual counts are 1785 in 2001, 1455 in 2005, 1831 in 2008, 1794 in 2009, and 1754 in 2010.
2. Not shown on the chart (since it was from a fall census) was the 2008 peak of 2003 rides, coinciding with $4 to $5 gasoline.
3. Passenger Census data was not available for years prior to 2001.

Comments:

Ridership dipped in the middle of the last decade. It peaked in 2008 with the gasoline price spike and has since fallen to a level below that of 2001. While the price spike pushed ridership above the growth rate necessary to reach official projections, it has now dropped below that required 6%+ rate. This flat to declining ridership pattern is supported by basic underlying trends. We have yet to see hard evidence showing why transit in this particular corridor should grow four times as fast as TriMet as a whole.



Study area map

This map is evidence of faulty analysis. It all but ignores the area east of the Sellwood Bridge which accounts for about 70% of all corridor traffic. The area south of the Tualatin River, with about half of the entire study corridor, has very little relevance. Since the latter is much faster growing than the former, the result is an artificial boosting of projections for traffic congestion, bus trip times, and transit ridership. Streetcar trip times were calculated differently and are not affected. The map is false & deceptive and has no legitimate use.

System productivity

Route Number	Route Name	FY2009 Route Level Ridership Productivity (Boarding Rides/Vehicle Hour)
	MAX Blue Line	169.2
	MAX Red Line	137.7
	MAX Yellow Line	113.5
8	Jackson Park	54.7
72	Killingsworth / 82nd Ave	53.2
9	Powell	48.5
	WES Commuter Rail	47.5
6	Martin Luther King Jr. Blvd	47.0
14	Hawthorne	46.3
4	Fessenden	45.7
4	Division	45.0
44	Capitol Highway	43.3
17	Holgate	42.4
15	Belmont	41.7
12	Sandy Blvd	40.8
57	TV Hwy / Forest Grove	40.3
20	Burnside / Stark	39.7
75	39th Avenue - Lombard	39.7
66	Marquam Hill / Hollywood TC	37.8
76	Beaverton / Tualatin	37.7
54	Beaverton - Hillsdale Hwy	37.3
12	Barbur Blvd	36.4
33	Mc Loughlin	36.0
52	Farmington / 185th Ave	35.0
19	Glisan	34.9
71	60th Ave / 122nd Ave	34.8
61	Marquam Hill / Beaverton TC	34.4
78	Beaverton / Lake Oswego	34.1
70	12th Avenue	32.1
15	NW 23rd Avenue	31.9
56	Scholls Ferry Rd	31.7
19	Woodstock	31.4
8	NE 15th Avenue	30.3
35	Macadam	30.0
68	Collins Circle	29.5

This chart, from TriMet's FY 2010 Transit Investment Plan, shows the 35 Macadam bus before consolidation with the 35 Greeley. Of the 29 bus routes showing more productivity than the 35 Macadam, 12 do not have frequent service and only two of those are slated to gain frequent service ahead of the 35. Only the 33 McLoughlin is planned to be replaced by High Capacity Transit while the 12 Barbur Blvd is being studied for HCT. A short portion of the 6 Martin Luther King Jr. Blvd will be served by the eastside streetcar loop. So why is the Highway 43 corridor such a high priority for rail transit, especially considering that streetcar will present a real degradation in service?