Robin McArthur, Chair

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

# Metro | Agenda

Meeting:	Transportation Policy Alternatives Committee (TPAC)
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Date: Friday, February 27, 2009

Time: 9:30 a.m. to 12 p.m.

Place: Room 370A/B

9:30 AM	1.	Call to Order and Declaration of a Quorum	Robin McArthur, Chair
9:30 AM	2.	Comments from the Chair and Committee Members	Robin McArthur, Chair
9:35 AM	3.	Citizen Communications to TPAC on Non-Agenda Items	
9:40 AM	4.	<ul> <li>Future Agenda Items</li> <li>Regional Transportation Plan Update – System Development</li> <li>ODOT Safety, Preservation &amp; Bridge Programs</li> <li>ODOT's Transportation Enhancement Programs</li> <li>MOVES Update</li> <li>Review of MTIP Process</li> </ul>	Robin McArthur, Chair
9:45 AM	5.	CONSENT AGENDA	Robin McArthur, Chair
	*	Approval of TPAC Minutes for January 30, 2000	

- Approval of TPAC Minutes for January 30, 2009
- Resolution No. 09-4029, For the Purpose of Amending the 2008-11 Metropolitan Transportation Improvement Program (MTIP) to Add the US 26 Adaptive Signal System: Ross Island and Bridge to SE 52<sup>nd</sup> Project, the OR 99W: Active Corridor Management, and I-5/I-405: Active Traffic Incident Management Projects

Air Quality Conformity Assessment

- Recommendation to JPACT Requested on Resolution

#### 6. **ACTION ITEMS**

9:50 AM	6.1	*	Resolution No. 09-4032, For the Purpose of Approving the Recommendation of the Policy Advisory Group Regarding the Locally Preferred Alternative for the Sellwood Bridge - <u>RECOMMENDATION</u> <u>TO JPACT REQUESTED</u>	Karen Schilling
10:10 AM	6.2	*	Resolution No. 09-4022, For the purpose of Amending the 2008-11 Metropolitan Transportation Improvement Program (MTIP) to Add	Andy Shaw Ted Leybold

Projects to Receive Funding From the American Recovery and

Reinvestment Act

- Air Quality Conformity Assessment
- Recommendation to JPACT Requested on Resolution

#### 7. **INFORMATION / DISCUSSION ITEMS**

10:30 AM 7.1 Economic Stimulus: Phase II – <u>INFORMATION / DISCUSSION</u> Andy Shaw Ted Leybold **Bridget Wieghart** 

11:00 AM 7.2 # Regional Transportation Plan (RTP): Freight Framework-**INFORMATION** 

11:30 AM 8. ADJOURN Material available electronically.

Material provided at meeting.

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## TRANSPORTATION POLICY ALTERNATIVES COMMITTEE

January 30<sup>th</sup>, 2009 Metro Regional Center, 370A/B

#### MEMBERS PRESENT AFFILIATION

Sorin Garber Citizen
Mara Gross Citizen

Nancy Kraushaar City of Oregon City, Representing Cities of Clackamas Co.

Alan Lehto TriMet Keith Liden Citizen

Dave Nordberg Department of Environmental Quality

Ron Papsdorf City of Gresham

John Reinhold Citizen April Siebenaler Citizen

Paul Smith City of Portland

Rian Windsheimer Oregon Department of Transportation
Sharon Zimmerman Washington Department of Transportation

# MEMBERS ABSENT AFFILIATION

Bret Curtis Washington County
Elissa Gertler Clackamas County

John Hoefs C-TRAN

Susie Lahsene Port of Portland
Dean Lookingbill SW Washington RTC

Mike McKillip City of Tualatin, Representing Cities of Washington Co.

Louis A. Ornelas Citizen

Karen Schilling Multnomah County

Satvinder Sandhu FHWA

# <u>ALTERNATES PRESENT</u> <u>AFFILIATION</u>

Andy Back Washington County
Lynda David SW Washington RTC
Scott King Port of Portland
Jane McFarland Multnomah County

Margaret Middleton Cities of Washington County

# **STAFF**

Ross Roberts, Amy Rose, Ted Leybold, Anthony Butzek, Kelsey Newell, Kayla Mullis, Deena Platman, Pat Emmerson, Caroline Leary, Pam Peck.

# 1. CALL TO ORDER AND DECLARATION OF A QUORUM

Mr. Ross Roberts declared a quorum and called the meeting to order at 9:33 a.m.

# 2. COMMENTS FROM THE CHAIR AND COMMITTEE MEMBERS

There were none.

# 3. <u>CITIZEN COMMUNICATIONS TO TPAC ON NON-AGENDA ITEMS</u>

There were none.

# 4. <u>FUTURE AGENDA ITEMS</u>

Mr. Roberts briefly overviewed the future agenda items.

# 5. APPROVAL OF TPAC MINUTES FOR DECEMBER 5, 2009

# Approval of TPAC Minutes from January 9, 2009

Mr. Keith Linden requested that his name be added to the list of members present at the January 9, 2009 TPAC meeting.

<u>MOTION</u>: Mr. Liden moved, Mr. Nordberg seconded, to approve the January 9, 2009 meeting minutes with the amended language.

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

# 6. ACTION ITEMS

# 6.1 Metropolitan Transportation Improvement Program Regional Flexible Fund Allocation

Mr. Ted Leybold of Metro briefly overviewed the Metropolitan Transportation Improvement Program (MTIP) Regional Flexible Fund (RFF) allocations process to date. Staff provided the committee with a suggested base package of local projects to use as a starting point for discussion. In addition, Washington County, TriMet and the Bicycle Transportation Alliance provided recommendations for TPAC to consider.

Mr. Andy Back outlined Washington County's base package recommendation; highlighting geographic equity and the \$7.2 million bike and pedestrian goal as the package's main objectives for MTIP allocations.

The committee then discussed:

- The Red Electric Trails project's benefits to the West side
- The pending federal stimulus focus on highway funding
- The difficulty in securing funding for trail specific bike and pedestrian projects
- The \$7.2 million minimum target for bike and pedestrian projects
- Selection of projects based on merit instead of geographic location.

Mr. Alan Letho outlined TriMet's base package recommendations. TriMet's three suggested packages make assumptions about the scalability of projects while focusing on either reaching the bike and pedestrian targets or top tier projects.

The committee then discussed:

- Concerns about deliverability of projects if they receive scaled funding
- Addressing regional cohesiveness in the package instead of geographic equity
- Adding the French Prairie Bridge back to the recommended package

<u>MOTION</u>: Mr. Back moved, and Ms. Margaret Middleton seconded, to adopt Washington County Base Suggestion No. 1 as the MTIP Recommendation to JPACT.

<u>VOTE</u>: With two in favor (Back and Middleton), and 15 opposed (Nordberg, Siebenaler, Papsdorf, Windsheimer, Letho, Smith, Gross, Garber, Liden, King, Reinhold, Kraushaar, McFarland, David and Zimmerman) the motion <u>failed</u>.

<u>MOTON</u>: Mr. Paul Smith moved, Mr. Scott King seconded, to adopt the Metro base proposal as the MTIP Recommendation to JPACT.

<u>AMENDMENT #1:</u> Mr. Ron Papsdorf moved, Ms. Nancy Krausher seconded, to amend the motion by replacing the even distribution of funding between the bus Stop Development and Streamline Program project and the School Bus Diesel Engine Emission Reduction to a proportionate distribution of funds and removing the St. John's Rail Line project and adding the West Side Trail project. The remaining funds will be allocated to the 102<sup>nd</sup> Avenue Project.

The committee discussed merits of the St. John's Rail Project and caution in scaling the School Bus Diesel Engine Emission reduction before voting on the amendment.

<u>AMENDMENT #1 ACTION TAKEN</u>: With five in favor (Papsdorf, Siebenaler, Kraushaar, Reihnold and Middleton), eleven opposed (Nordberg, Windsheimer, Smith,

Gross, Garber, Liden, Back, King, McFarland, David and Zimmerman) and one abstained (Letho) the amendment #1 failed.

<u>AMENDMENT #2</u>: Mr. Letho moved, Mr. Back seconded, to amend the base package to equal TriMet's third suggested base package.

<u>AMENDMENT #2 ACTION TAKEN</u>: With two in favor (Letho and Reinhold), fifteen opposed (Siebenaler, Krausher, Reinhold, Middleton, Nodrdberg, Windsheimer, Smith, Gross, Garber, Liden, Back, King, McFarland, David and Zimmerman) and one abstained (Papsdorf), the amendment #2 <u>failed</u>.

<u>AMENDMENT #3</u>: Mr. Reinhold moved, Mr. Back seconded, to amend the motion by removing the St John's Rail Line Project and adding the French Prairie Bridge Project and the West Side Trail Project at an amended funding amount of \$2,399,830.

<u>AMENDMENT #3 ACTION TAKEN</u>: With nine in favor (Reinhold, Krausher, Papsdorf, Nordberg, Back, Liden, Middleton, Siebenaler and Gross), six opposed (McFarland, Windshiemer, Letho, Smith, Garber and King) and two abstained (David and Zimmerman), the amendment #3 passed.

<u>VOTE</u>: With eleven in favor (Nordberg, Siebenaler, Zimmerman, Nordberg, Kraushaer, Reinhold, Back, Middleton, Liden, Gross and Papsdorf) and six opposed (Windshiemer, Letho, Smith, McFarland, Garber and King), the motion to recommend the Metro base proposal to JPACT with the approved amendment <u>passed</u>.

#### 7. INFORMATION / DISCUSSION ITEMS

# 7.2 Regional Transportation System Management and Operations Refinement Plan Update

Ms. Deena Platman of Metro updated the committee on the status of the Regional Transportation System Management and Operations (TSMO) Plan highlighting changes to goal three and removing performance methods from the way objectives are defined. The handouts show a compilation of needs identified over the course of the project and are broken down into system management services. As actual project development begin high priority needs and projects must be identified. JPCAT is schedule to review the plan on January 12<sup>th</sup> 2009.

The committee discussed equity in fair collection on rail lines and the specifics of traveler information signs.

#### 7.3 Federal Economic Stimulus Bill

Mr. Andy Shaw of Metro briefly overviewed the federal economic stimulus bill; highlighting the anticipated distribution of funding to the state and local governments. Discussions on the timing and process that will be used for allocating funds is scheduled for January 30<sup>th</sup> 2009 at 1p.m at Metro. Members and interested parties are encouraged to attend.

The committee discussed:

- How to streamline traditional funding processes
- Preference of complex construction projects, not simple paring projects for creating jobs
- Hiring local contractors for projects
- Submitting project proposals to ODOT by the week of February 2<sup>nd</sup> 2009.

# 7.4 Unified Planning Work Program

Mr. Ted Leybold of Metro stated that the draft Unified Planning Work Program is now available for viewing. The document includes the work plan and budget for all regional planning projects in fiscal year 2009-2010. A follow up with ODOT has been scheduled for the March TPAC meeting.

# 7.5 Local Aspirations

Ms. Christina Deffebach of Metro briefed the committee on the Local Aspirations process that is part of Making the Greatest Place. Metro staff has asked Metro area planning directors to provide information on their communities' local growth aspirations. Information gathered will be used to support the High Capacity Transit System Plan evaluation process, the Regional Transportation Plan, the Urban Growth Report and other elements of Making the Greatest Place.

Additional tools available to local communities include the final copy of Our Place in the World and a draft copy of the State of the Centers.

#### 7. ADJOURN

As there was no further business, Mr. Roberts adjourned the meeting at 12:02 a.m.

Respectfully submitted,

Kayla Mullis Recording Secretary

# ATTACHMENTS TO THE PUBLIC RECORD FOR JANUARY 9<sup>TH</sup>, 2009. The following have been included as part of the official public record:

ITEM	TOPIC	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT No.
6.1	Report	Dec. 2008	MTIP 2008 Project Obligation Report	013009t-01
6.1	Flyer	4/4/2008	French Prairie Bridge: Bike-Ped-Emergency Bridge Informational Flyer	013009t-02
6.1	Chart	N/A	TriMet: Three Options for Finalizing RFF Step 2 Project Shares	013009t-03
6.1	Report	N/A	TriMet Bus Stop Development & Streamline Program	013009t-04
6.2	Report	N/A	Washington County's Regional Flexible Fund Allocation	013009t-05
6.2	Memo	01/29/09	To: TPAC Members From: Michelle Poyourow, Bicycle Transportation Alliance Re: TPAC Recommendations for Local RFF Projects	013009t-06
6.2	Report	Sep. 2008	RFF: Technical Evaluation and Qualitative Summary- 2010-2013 MTIP	013009t-07
6.2	Chart	N/A	Environmental Enhancement and Mitigation Projects- Qualitative Summary	013009t-08
6.2	Chart	N/A	Environmental Enhancement and Mitigation Projects- Quantitative Summary: Emission Reduction Track	013009t-09
7.2	Report	01/33/09	Regional Transportation System Management and Operations Refinement Plan: Guiding Principals	013009t-10
7.2	Report	01/30/09	Regional Transportation System Management nad Operations Refinement Plan: Program Goals and Objectives	013009t-11
7.3	Chart	1/30/09	Economic Stimulus Fund Distribution Flow Chart	013009t-12
7.4	Report	1/22/09	FY 2009-10 Unified Planning Work Program: Updated Report	013009t-13
7.5	Report	N/A	Our Place in the World- The Portland Metro Region	013009t-14
7.5	Report	N/A	State of the Centers	013009t-15

DRAFT

#### BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AMENDING THE 2008-	)	RESOLUTION NO. 09-4029
11 METROPOLITAN TRANSPORTATION	)	
IMPROVEMENT PROGRAM (MTIP) TO ADD	)	Introduced by Councilor Rex Burkholder
THE US 26 (POWELL BOULEVARD) THE	)	
ADAPTIVE TRAFFIC SIGNAL SYSTEM: ROSS	)	
ISLAND BRIDGE TO SE 52 <sup>ND</sup> PROJECT, THE		
OR99W: ACTIVE CORRIDOR MANAGEMENT		
PROJECT, AND THE I-5/I-405: ACTIVE		
TRAFFIC INCIDENT MANAGEMENT PROJECT		

WHEREAS, the Metropolitan Transportation Improvement Program (MTIP) prioritizes projects from the Regional Transportation Plan to receive transportation related funding; and

WHEREAS, the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council must approve the MTIP and any subsequent amendments to add new projects to the MTIP; and

WHEREAS, the JPACT and the Metro Council approved the 2008-11 MTIP on August 16, 2007; and

WHEREAS, the Oregon Department of Transportation (ODOT) has awarded the City of Portland \$1,546,677 for transportation system management and operations improvements to US 26 (Powell Boulevard) between the Ross Island Bridge and SE 52<sup>nd</sup> Avenue; and

WHEREAS, the Oregon Department of Transportation (ODOT) has awarded the City of Portland \$586,000 for active corridor management on OR-99W; and

WHEREAS, the Oregon Department of Transportation (ODOT) has awarded the City of Portland \$1,480,545 for active traffic incident management on I-5/I-405; and

WHEREAS, all federal transportation funds allocated in the Metropolitan Area must be included in the Regional Transportation Plan's financially constrained system and the MTIP financial plan; and

WHEREAS, these discretionary funds were not previously forecast to be available and therefore represent new funding within a financially constrained RTP and MTIP financial plan; and

WHEREAS, this change to programming for this project is not exempt by federal rule from the need for a conformity determination with the State Implementation Plan for air quality; and,

WHEREAS, an air quality conformity assessment concludes that the project is not regionally significant for the purposes of air quality analysis and that the project will not adversely affect the conformity status of the 2008-11 MTIP or 2035 Regional Transportation Plan (RTP); and

WHEREAS, the change to programming for this project has been determined through inter-agency consultation have been determined in conformity with the State Implementation Plan for air quality; now therefore

BE IT RESOLVED that the Metro Council hereby adopts the recommendation of JPACT to add the US 26 Adaptive Traffic Signal System: Ross Island Bridge to SE 52nd project, the OR99W: Active Corridor Management project, and the I-5/I-405: Active Traffic Incident Management project to the 2008-11 MTIP.			
ADOPTED by the Metro Council this 19th day of Mar	ch 2009.		
	Pavid Bragdon, Council President		
Approved as to Form:	avid Bragdon, Council Fresident		
Daniel B. Cooper, Metro Attorney			

#### STAFF REPORT

FOR THE PURPOSE OF AMENDING THE 2008-11 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM (MTIP) TO ADD THE US 26 (POWELL BOULEVARD) ADAPTIVE TRAFFIC SIGNAL SYSTEM: ROSS ISLAND BRIDGE TO SE 52<sup>ND</sup>, THE OR99W: ACTIVE CORRIDOR MANAGEMENT PROJECT, AND THE I-5/I-405: ACTIVE TRAFFIC INCIDENT MANAGEMENT PROJECT

Date: March 19, 2009 Prepared by: Ted Leybold

#### **BACKGROUND**

The Immediate Opportunity Fund (IOF) supports primary economic development in Oregon through the construction and improvement of streets and roads. The 1987 Oregon Legislature created state funding for immediate economic opportunities with certain motor vehicle gas-tax increases.

Access to this fund is discretionary and the fund may only be used when other sources of financial support are unavailable or insufficient.

Oregon Department of Transportation (ODOT) has awarded the City of Portland \$1,546,677 from the Immediate Opportunity Fund for Transportation improvements to US 26 (Powell Boulevard) between the Ross Island Bridge and SE 52<sup>nd</sup> Avenue to update to an adaptive traffic signal system. Funds requested will help implement adaptive traffic signal control on the U.S. 26 corridor that optimizes the use of the corridor, enhancing safety by reducing congestion, and improving travel time reliability for all modes. Adaptive signal control will allow greater flexibility in signal timing to manage varying traffic patterns, queue/traffic spillback, and emergency vehicle preemption along the corridor.

Oregon Department of Transportation (ODOT) has awarded the City of Portland \$586,000 from the Immediate Opportunity Fund for active corridor management on OR-99W. Funds requested will be used to upgrade traffic signal controllers and local intersection software at 21 intersections along 99W from I-5 to Durham Road.

Oregon Department of Transportation (ODOT) has awarded the City of Portland \$1,480,545 from the Immediate Opportunity Fund for active traffic incident management on I-5/I-405. Funds requested will help improve towing performance and implement speed harmonization and a queue warning system.

The Joint Policy Advisory Committee on Transportation and the Metro Council must approve amendments to the MTIP. The US 26 Adaptive Traffic Signal System: Ross Island Bridge to SE 52<sup>nd</sup> project is proposed to receive funding through the Immediate Opportunity Fund.

An air quality conformity assessment was completed on the proposed amendment and, after consultation with the US Environmental Protection Agency, Oregon Department of Environmental Quality, Federal Highway Administration, Federal Transit Administration, Oregon Department of Transportation and TriMet, concluded that adding this project to the 2008-11 MTIP will not result in any adverse air quality impact and accordingly would not result in a change in status to air quality conformity for the 2008-2011 MTIP or the 2035 Regional Transportation Plan.

#### ANALYSIS/INFORMATION

- **1. Known Opposition** None known at this time.
- **2. Legal Antecedents** Amends the 2008-11 Metropolitan Transportation Improvement Program adopted by Metro Council Resolution 07-3825 on August 16, 2007 (For the Purpose of Approving the 2008-11 Metropolitan Transportation Improvement Program for the Portland Metropolitan Area).
- 3. Anticipated Effects None.
- 4. Budget Impacts None.

#### RECOMMENDED ACTION

Metro staff recommends the approval of Resolution No. 09-4029.



**TO:** Robin McArthur, Chair, TPAC, TPAC members, alternates and interested parties

**FROM:** Mark Turpel, Principal Transportation Planner

**DATE:** February 19, 2009

**SUBJECT:** Air quality and three traffic signalization/ITS projects

# **Proposed Projects**

Three projects have been proposed to be added to the 2008-2011 MTIP including:

- An Adaptive Signal System for up to 10 traffic signals on Powell Boulevard (US 26) from the Ross Island Bridge to 52<sup>nd</sup> Avenue in the City of Portland; and,
- A traffic signal coordination and upgrade project on Oregon Highway 99W from I-5 to Durham Road in the City of Tigard; and,
- An Active Traffic and Incident Management system for the I-5/I-405 loop lead by ODOT in collaboration with the City of Portland.

#### Issue/Question

How should the air quality implications of the three proposed traffic signal/ITS projects be addressed to meet state and federal regulations?

#### Air Quality Regulatory Background

Federal law (Clean Air Act) and resulting federal requirements and state law and regulations mandate that transportation projects added to the MTIP must be considered for their likely air quality implications. The region is in compliance with all air quality standards, though it does continue to be required to assess Carbon Monoxide at the regional level to help ensure clean air standards are maintained. Transportation projects may be determined to be exempt, exempt from regional air quality analysis or regionally significant projects. If they are judged to be regionally significant, a quantitative analysis is completed and a 30 review period must be provided for technical and public review of the quantitative findings.

Regulations (OAR 340-252-0280) provide that "...intersection signalization projects at individual intersections..." are exempt from regional emissions analysis and (OAR 340-252-0290) that:

"Traffic signal synchronization projects may be approved, funded, and implemented without satisfying the requirements of this division (Transportation Conformity). However, all subsequent regional emission analyses required by OAR 340-252-0190 and 340-252-0200 for transportation plans, TIPs, or projects not from a conforming plan and TIP must include such regionally significant traffic signal synchronization projects".

Further, (OAR 340-252-0030) defines a "regionally significant project" as:

"a transportation project..that is on a facility which serves regional transportation needs, such as access to and from the area outside the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves, and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum: a) all principal arterial highways; b) all fixed guideway transit facilities that offer an alternative to regional highway travel; and c) any other facilities determined to be regionally significant through interagency consultation pursuant to OAR 340-252-0060). [Note: a project that is included in the modeling of an area's transportation network may not, subject to interagency consultation, be considered regionally significant because it is not on a facility which serves regional transportation needs.]"

#### Air Quality Assessment of Proposed Projects

Following is the staff assessment given air quality regulations:

- Powell Blvd this adaptive signal system is demand responsive that is, the amount of "green time" or capacity of the intersection to accommodate vehicles varies by the number of vehicles queuing to use the intersection. Currently, the Metro Transportation Model can't account for this type of signalization. Representatives from EPA, DEQ, ODOT, FHWA, FTA and TriMet were consulted about this proposed project and did not express concerns with considering the investment as not regionally significant as it can't be modeled. (There was a comment that the region should continue to review and consider such projects in the future.)
- 99W signal coordination project this project appears to be consistent with OAR 340-252-0290, which allows traffic signal synchronization without an immediate air quality analysis so long as it is added to future air quality conformity determinations done in conjunction with subsequent conformity determinations. Staff anticipate that in the fall 2009 such an analysis will be done. If project results are available in time for a fall 2009 analysis, these data could be included. Otherwise, when such performance data are available, they could be included in the next available conformity determination.
- I-5/I-405 this project, like the Powell Blvd project, includes variability based on demand which can't be modeled. In this case variable speed signs would be used along with a rapid tow program to reduce congestion and increase capacity.

#### Recommendations

Staff recommend that TPAC conclude that because the Powell Blvd and I-5/I-405 projects can't be modeled, that for the purposes of air quality conformity determination of regional emissions, they be considered to not be regionally significant. However, staff recommend that Metro Travel Forecasting monitor these programs, and, in the event that future model capabilities change, these systems be added to the transportation model.

With regard to the 99W signal coordination project, staff recommend that TPAC conclude that this project is a traffic signal synchronization project consistent with OAR 340-252-0290, and need not satisfy the requirements of transportation conformity now, but will be added to the transportation model in the future.

# STATEMENT OF PROPOSAL

June 30, 2008

Oregon Department of Transportation Transportation Operations Innovation & Demonstration Program

# 2008-2011 STIP Application

U.S. 26 Adaptive Signal System





# PART 1, SECTION 1 - PROJECT SUMMARY

# 1.1.1. Applicant and Project Partners

The applicant for this project is the City of Portland. The primary contact person for this application is Bill Kloos. Project partners will include the Oregon Department of Transportation (ODOT) Region 1 for system integration,

Bill Kloos, Signals & Street Lighting Manager City of Portland 1120 SW 5th Ave, Rm 800 Portland, OR 97204 (503) 823-5382

Portland State University (PSU) for evaluation of the project, and Tri-County Metropolitan Transportation District of Oregon (TriMet) for integration of transit signal priority into the adaptive system.

# 1.1.2. Project Location

The proposed project would implement adaptive control on U.S. 26 (Powell Boulevard, Mt. Hood Highway), from the Ross Island Bridge to SE 52<sup>nd</sup> Avenue, approximately 2.5 miles in length. We have considered an option to implement adaptive signal control at all ten (10) signalized intersections along the proposed corridor U.S. 26 or shorten the implementation corridor to include the six (6) signalized intersections between 33<sup>rd</sup> Avenue and 52<sup>nd</sup> Avenue. SE Powell Boulevard carries an average annual daily traffic volume of nearly 60,000 vehicles and is a key regional commuter corridor within southeast Portland. This facility is classified as a designated ODOT Region 1 Urban Arterial Corridor from Naito Parkway to Interstate 205. Both options fulfill strategic value and carry the same opportunities for successful demonstration.

# 1.1.3. Project Description

The purpose of this project is to implement adaptive signal control on the U.S. 26 corridor that optimizes the use of the corridor, enhancing safety by reducing congestion, and improving travel time reliability for all modes. Adaptive signal control will allow greater flexibility in signal timing to manage varying traffic patterns, queue spillback, and emergency vehicle preemption along the corridor. The project schedule targets initialization of preliminary engineering upon award of the grant and construction completed by within 24 months.

In addition to the project options to include either all 10 or a subsection of 6 signalized intersections, there is the option to include the integration of transit signal priority (TSP) and/or real-time arterial performance measures. The integration of TSP with adaptive control would be the first of its kind in the U.S., and would insure that the application of

adaptive control is consistent with the regional policies of improving the efficiency of the transportation system and specifically maintaining transit performance. Integration of real-time arterial performance measures (such as travel time) with adaptive signal control would also be the first of it's kind within the U.S., enhancing performance tracking along the corridor and provide a pilot project for future applications across the state.

# 1.1.4. Financial Summary

The estimated project cost for this effort varies based upon the options the selection committee would most like to see demonstrated along the U.S. 26 implementation corridor. All options include integration of the adaptive signal control into the existing Transuite central signal system. Part 2 of this application contains detailed cost estimates.

Option 1: implement adaptive signal control at all 10 intersections between the Ross

Island Bridge and 52<sup>nd</sup> Avenue, and integration of both TSP and real-time travel time, and other arterial performance measures, at an estimated cost of \$1.64 million.

**Option 2:** eliminate TSP and travel time integration to reduce the estimated cost to \$1.16M.

**Option 3:** implement adaptive signal control at the subsection of 6 intersections between 33<sup>rd</sup> Avenue and 52<sup>nd</sup> Avenue, but no TSP and no real-time travel time integration would occur. This would be at an estimated cost of \$746,145.

<b>Activity</b>	<b>Estimate</b>
Project Administration	\$35,000.00
Project Design/Development	\$240,000.00
Right-of-Way	N/A
Construction	\$162,070.00
Software and Equipment	\$721,950.00
Contingency	\$231,804.00
Construction Engineering/PM	\$173,853.00
Evaluation	\$75,000.00
Total	\$1,639,677.00
Partial Award Options	
No TSP/Arterial Performance	\$1,167,177.00
Limited extents	\$746,145.00

The City of Portland will commit a significant amount of in kind services to the endeavor, as well as some planned improvements for the corridor representing a significant match.

#### 1.1.5. Certification Statement

I certify that The City of Portland supports the proposed project, has the legal authority to pledge matching funds, and has the legal authority to apply for project funds. I further certify that any proposed matching funds are available or will be available for the proposed project. I understand that this is not a grant application, that it is a request for reimbursement through the federal aid system, and that all federal rules for contracting, auditing, and payment will apply to this project.

Signature			Date
Printed Name_	Susan D. Keil	Title	Director, Portland Office of Transportation

#### PART 1, SECTION 2 - PROJECT NARRATIVE

# 1.2.1. Project Benefits

The U.S. 26 (Mt. Hood Highway, Powell Boulevard) study corridor is the critical eastwest principal arterial in southeast Portland; connecting Downtown Portland to various southeast Portland neighborhoods, Oregon Highway 213 (82<sup>nd</sup> Avenue) and Interstate 205. The study corridor between the Ross Island Bridge and 52<sup>nd</sup> Avenue carries as many as 60,000 vehicles per day, and is classified as a regional connector, major city traffic street, major transit priority street, major emergency response, and major truck street.<sup>1</sup> The Oregon Highway Plan classifies the study corridor as a District highway. In short, the corridor is of



The Ross Island Bridge carries the most traffic volume of any 4-lane facility in the Portland metropolitan area.

regional importance. The ODOT ITS Implementation and Operations Plan identified this corridor with the highest level of arterial traffic management including a recommendation for adaptive signal control.

This corridor regularly experiences high levels of congestion during peak periods, resulting in poor travel times, reliability, and higher vehicle emissions due to idling. The current levels of congestion also negatively impact freight & transit mobility and reliability within SE Portland. Various signal timing plans and strategies have been utilized along the corridor, including traffic responsive timing, but they have not been able to alleviate congestion and establish traffic operations stability and reliability to desired levels during peak periods.

This congestion has contributed to US 26 being one of most dangerous corridors in the Portland-metropolitan region. Three intersections in particular SE 39th, SE 28th, and SE 7th were highly ranked in a recent City-wide safety study of top crash locations. Closer analysis of the data revealed that many of the crashes analyzed on the corridor occur during congested conditions.

Traffic adaptive signal control offers a promising solution through congestion reduction, freight/transit mobility benefits, and safety benefits to the ODOT state roadway system.

<sup>&</sup>lt;sup>1</sup> Transportation System Plan: Policies and System Improvements Volume 1. City of Portland, Oregon, Office of Transportation, October 30, 2002.

Adaptive signal control autonomously adjusts signal timing parameters in real-time, to respond to actual, real-time traffic conditions. By adjusting the traffic control parameters to more closely align with traffic conditions, adaptive systems can reduce traffic delay and decrease travel time variability. Adaptive signal control has been demonstrated in other communities to improve average traffic operations and environmental performance metrics by 10% and up to 50% in particularly poor conditions.

Option 1 of this project would integrate the existing transit signal priority that was implemented as a part of a TEA-21 grant received by the City in 1999. Transit signal priority has not been integrated into SCATS in the U.S. and this innovative step will insure that the project meets the multimodal performance objectives of the region, and improves the national state of practice for transportation operations.

Project benefits are expected as a result of implementing adaptive signal control along the study corridor by strategically planning for vehicle arrivals and departures to maximize traffic progression, while reducing system delay. Specific examples of expected benefits include:

# Reduced stops,

- o lowering exposure for rear-end type crashes up to 15%, which are common along the corridor;
- o and reducing vehicle emissions through the reduction of vehicle idling along the corridor, thus improving environmental performance measures;
- **Improved travel times**, which reduces traveler frustration and impatience, a key contributing cause to crashes in urban environments, up to 25% reduction.
- Improved travel time reliability, which is perhaps the highest valued performance measure of the traveling public and TriMet, avoiding unforeseen congestion where possible, up to 11% reduction.
- **Improved "shoulder" peak period operations**, adding a level of stability to traffic pattern enter and exit peak times of the day.

Another benefit of the proposed adaptive control demonstration project is its consistency with the current City of Portland centralized signal system infrastructure, and the Portland-metropolitan regional ITS architecture. This project would be implemented jointly with ODOT, TriMet, and other neighboring agencies improving interagency communication, knowledge sharing, and even resources.

In order to validate benefits from this proposed demonstration, the project team will conduct before and after system performance measurement by validating the data collection features of the SCATS adaptive system and collecting average delay, stops, and potentially queue lengths. The project team will verify select measurements in the field. By leveraging the automated data collection capabilities of the proposed SCATS adaptive system, it allows the project team to keep costs lower for the before and after evaluation and retain a high level of data precision.

Interpreting and analyzing the data will be key to this project. The City of Portland has a long history of producing documentation to quantify the measures of effectiveness of adaptive control and lessons learned for following implementations within the state of Oregon. PSU will assist the City in this endeavor. The project team is dedicated to producing solid evaluation results that are clear and easy to understand for both technical and non-technical audiences.

#### 1.2.2. Technical Merit

In the face of changing traffic patterns and a goal of managing traffic more effectively; this project would upgrade the signal control on SE Powell Boulevard, consistent with the ODOT Region 1 ITS Implementation and Operations Plan. This project is consistent with the Oregon Transportation Plan (OTP) which was adopted in September 2006, and presents "operations" as the second of five priorities, behind only to preservation. Similarly, the forthcoming Regional Transportation Plan (RTP) emphasizes the importance of transportation system management and operations (TSMO) as a cost-effective means for achieving the plans' various goals.

The Powell Boulevard/U.S. 26 study corridor has the following symptoms of instability currently present, which indicate a traffic adaptive signal system is the appropriate technical solution:

- Fluctuating traffic demand;
- Operations at or near capacity (upwards of 50-60k ADT across 4-lanes);
- Emergency vehicle pre-emption;
- Transit signal priority;
- Queue spillback between intersections;
- Traffic incidents and diversion, and
- Changing land uses, population, and employment

The proposed SCATS adaptive system is a feasible, appropriate, and proven solution for these symptoms of congestion that exist along the proposed U.S. 26 adaptive corridor. Adaptive signal control autonomously adjusts signal timing parameters in real-time, to respond to actual, real-time traffic conditions. By adjusting the signal timing parameters of cycle, split and offset the system can reduce traffic delay, increase average speeds, improve travel times, and decrease travel time variability, as described in previous sections.

The proposed SCATS adaptive signal system is "reactive" in nature because it uses stopbar loop detection to measure current flow rates to drive necessary adjustments to signal timing for following cycles in real-time. This type of adaptive system is easier and less costly to implement in that it requires less system detection and less maintenance staff time to ensure detection is working properly. It does not attempt to predict traffic arrivals in real-time, which relies on more upstream and downstream detectors.

The proposed SCATS system adheres to the existing Portland Regional ITS Architecture, thus allowing the system to work with the regional central signal system and other existing ITS elements within the region. The adaptive signal control technology would fall under traffic signal management for arterial traffic management per the ODOT Region 1 ITS Plan. This plan identifies the U.S. 26 study corridor as a level 3 traffic management classification, with "signal operations, coordination and monitoring" called out as key ITS elements. The proposed adaptive control system would allow these ITS goals to be met and exceed basic traffic signal timing plans.

The proposed adaptive signal system technology also fits well with the City of Portland's Regional ITS Plan to:

- Maximize transportation productivity, mobility, efficiency and safety;
- Provide faster information sharing between agencies and to the public (option 1);
- Develop cost-effective ITS technologies and systems to promote efficient use of all modes of transportation.

The proposed adaptive signal system along the U.S. 26 corridor supports TriMet's 5-Year ITS Plan's goals and mission of ensuring the "implementation of ITS to support improving mobility in a growing, compact, urban region".

#### Project Team / Project Experience

The project will be led by the City of Portland with support from TriMet, ODOT Region 1, and Metro. Transcore, who is the U.S. distributor of the SCATS adaptive control system, will provide the system and the City will use its flexible service contracts to complete the engineering. The project team will take a collaborative approach, making use of a technical advisory committee which is expected to include the City of Gresham and City of Vancouver, both with direct experiences in adaptive control implementation and integration of the SCATS adaptive system into the Transuite central system.

The project team of Portland Department of Transportation (PDOT), ODOT, TriMet, and Portland State University as a group have been working together for many years, and bring a wealth of knowledge, experience, and expertise. The resulting level of professional familiarity is essential to the effectiveness of the team. The City staff, with help from the project team members is prepared to successfully procure, develop, and implement this project. City staff is aware of the successful and unsuccessful applications of adaptive systems and will manage the project in a way that offers the greatest opportunity for success. Specifically, this includes:

- Utilizing strong regional partners to share knowledge and resources, particularly with nearby City of Gresham and project team member Transcore;
- Maintaining and managing the detection system, which is the life-blood to the adaptive control system; and
- Providing adequate training for both engineering and maintenance staff to ensure the system is managed and works effectively long into the future.

The signals along the proposed U.S. 26 implementation corridor are owned and operated by PDOT, but involve oversight from ODOT, since they are on an ODOT facility. Bill Kloos of PDOT will serve as the primary contact and project manager. Dennis Mitchell will likely serve as the primary ODOT agency contact. Mr. Kloos (City of Portland) and Mr. Mitchell (ODOT) have worked together directly, sharing resources and coordinating their implementation schedules on numerous successful projects. In addition to Mr. Kloos and Mr. Mitchell, a summary of each of the team members' knowledge, pertinent skills, and abilities are included in Part 2 of this application.

Dennis Mitchell (ODOT) will serve in a review role for the traffic adaptive signal timing and system changes and will help oversee the integration of both transit signal priority and real-time arterial performance measurement along the study corridor. Willie Rotich (City of Portland) will manage the implementation of field devices for the City of Portland. He is the ITS engineer for the City of Portland and has experience with numerous traffic responsive signals and integration of transit signal priority across the City. He is well-versed in traffic adaptive technologies and real-time arterial performance measure concepts.

# Project Approach/Scope of Work

The Project Approach section of this proposal describes our understanding of the existing opportunities and our approach to delivering a project that meets the objectives. The objectives of this project are to demonstrate technology that will make a discernible difference to the traveling public and introduce new techniques that are new to Oregon. To this end, we will complete the following: 1) work with Technical Advisory Committee (ODOT, TriMet, and neighboring jurisdictions) to define and prioritize operational goals, which correlate to defining signal timing boundary parameters within the adaptive system (i.e. minimum and maximum cycle lengths); 2) prepare engineering plans, specifications, and estimates for construction of communication and signal system infrastructure necessary to implement the system chosen; 3) successfully deploy and integrate the new technology into the existing system; and 4) complete before and after study and document results and lessons learned to aid future implementations across the state. Table 1 shows the expected project schedule.

Table 1 U.S. 26 Adaptive Signal System Project Schedule 2009 2010 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Engineering Procurement Construction Evaluation Integration

Project Cost Estimate

Please see section 1.1.4 for a financial summary of the proposed project. A detailed cost estimate is shown in Part 2 of this application.

# 1.2.3. Project Innovation and Importance

This proposed adaptive signal system project will demonstrate a technology that has already been demonstrated in Oregon, but adds some significant elements that will be important additions as implementations are expanded to other agencies or areas of the state. This project would be the second implementation of adaptive traffic signal systems (City of Gresham is the other) in Oregon, but only the 19th in the U.S. Option 1 of the project would be the first to integrate with an existing transit signal priority system. This option 1 of the project would also include a component to communicate arterial performance measures to the public, such as travel time, the first of its kind in the U.S.

Without the implementation of this type of adaptive signal system treatment along the U.S. 26 corridor, with its growing travel demand, congested operations are expected to worsen, increased crash likelihood and environmental degradation through increased emissions. In addition, a great opportunity to test an appropriate technology solution on one of the most heavily traveled four-lane corridors in Oregon would be missed. The proving of this technology along U.S. 26 in S.E. Portland and its regional benefits to neighboring facilities would allow for further implementations around the State where appropriate congestion and "symptoms" of instability exist.

The implementation of the traffic adaptive system requires updates to signal detection and controller elements, which makes it the ideal opportunity in option 1 to integrate and demonstrate real-time arterial performance measures, which is unique to Oregon and would be the first non-research implementation in the U.S. The arterial performance measurement system can collect a multitude of measures including travel time, delay, stops, and could be used one of two ways:

- 1. Use the existing SCATS software and communication to collect the real-time data, or
- 2. Use specialized detection loops (Reno A/E) to track individual vehicle signatures within local controller software to track travel time and delay,

Both methods of data collection would then be integrated from the local controller into the City of Portland central signal system (Transuite). Then the connection between Transuite central control and Portland State University's Portland Transportation Archive Listing (PORTAL) to



serve as the database for collected information as well as the graphical interface for displaying performance measures along the U.S. 26 pilot corridor in real-time. Visually arterial performance measures through PORTAL may look similar to ODOT's Trip Check real-time speeds on Portland area freeways.

# 1.2.4. Implementation Readiness

The adaptive signal system technology is more wide-spread in its use internationally in places like Australia and Europe. The results domestically in the United States are varied from excellent to poor, depending on traffic demand, environment and particular adaptive software used.

The proposed SCATS adaptive system for the U.S. 26 corridor with ten traffic signals will be very similar to the system utilized in neighboring City of Gresham. In Gresham, SCATS has been applied at 11 intersections in a similar manner. Results of the before and after study for the City of Gresham adaptive project indicate the following benefits<sup>2</sup>:

- 100,00 vehicle-hours of delay saved annually;
- 75,000 gallons of fuel saved annually;
- Travel time reduction of up to 25%;
- Increased travel time reliability, and
- Benefit to cost ratio of 1.7 in the first year, and 4.9 over the first five years

The City of Portland currently operates and maintains the signals on the Powell Boulevard corridor following the development of an Intergovernmental Agreement (IGA) that has included payments from ODOT to the City for this purpose. There are also

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<sup>&</sup>lt;sup>2</sup> "Gresham Experience Operating an Adaptive Signal Control System," DKS Associates, Inc. http://egov.oregon.gov/ODOT/TD/TP\_RES/docs/2008NWTC/2008\_presentations/3A\_1\_peters.pdf

agreements for the use of Transuite for ODOT (in the future) and other regional partners throughout the region. TriMet and the City of Portland have IGAs related to the installation of TSP that have insured successful cooperation. We do not expect having to modify these IGAs in order to implement this project, but are prepared to should the need arise. The City does not anticipate any *legal or policy issues that could arise* as a result of this project.

# 1.2.5. On-Going Operational Cost Effectiveness

As described previously, the estimated operations and maintenance costs projected for this adaptive project are \$15,000 annually, which matches well with experiences in Gresham and other locations nationally with the SCATS adaptive system.

Daily maintenance of the system will be conducted by the City of Portland. Staff training and IT support will be provided by the SCATS system vendor, Transcore and supplemented by City of Gresham staff. Transcore will make multiple visits within the first year to increase knowledge sharing with City staff and assist in the implementation of the adaptive system along U.S. 26. Training on operations and maintenance will be made available to ODOT and other agency staff interested in the adaptive technology.

As stated previously, the proposed SCATS adaptive signal control system would work hand in hand with the City's central signal system, allowing for monitoring and alterations both from a central location remotely and locally within the field via a laptop computer. The maintenance of the adaptive detection system and timing plans along U.S. 26 would be the responsibility of City of Portland staff.

Conquering the learning curve on this project within the City of Portland, helps ease the burden from a resource and financial prospective for future implementations of the adaptive signal system technology within the City of Portland. Portland is the most populated City within the State, thus, from a regional perspective; it has the greatest opportunity to provide benefit to the greatest number of traveling public, when compared to other locations within the state.

# 1.2.6. Support

The proposed funding plan includes the Portland Office of Transportation's commitment to provide matching funds associated with signal upgrades and related improvements.

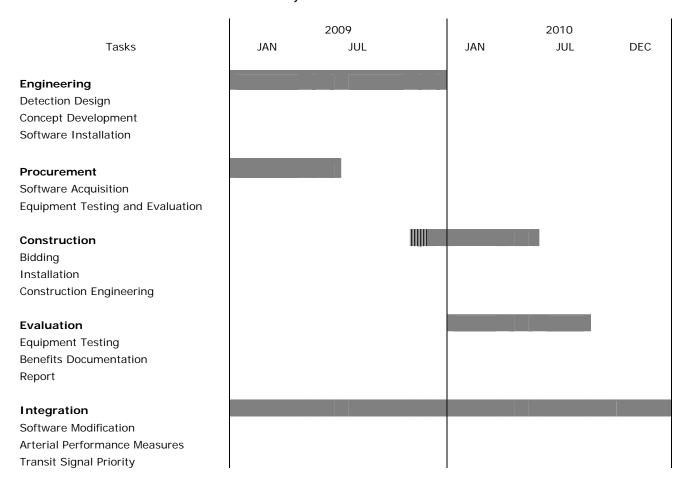
We have included letters of support from the City of Portland, Metro, and ODOT. The support clearly addresses the problem areas identified previously by ODOT in the Region 1 ITS Implementation and Operations Plan and by Metro in the RTP.

# Part 2 – Supporting Documents

#### PROJECT SCHEDULE

The following detailed schedule provides information regarding the timeline for the installation of the SCATS Adaptive Traffic System. The first phase will be design support, and the second will be system deployment. As stated in Part 1 of the proposal, we anticipate that the project will require 24 months from start to finish. The City of Portland intends to use the contracting authority provided in its flexible services agreements to conduct this project and an existing contract with Transcore to secure the SCATS adaptive system. Thus, the contracting can be completed in an expeditious manner. The initial step of the project is to conduct an outreach effort to review the operational concepts developed by the City of Gresham during their regional workshops to insure their sufficient for this corridor. This initial planning effort is included in the engineering task.

# **Project Schedule**



The engineering task includes software installation which features setup of intersection parameters, coordination parameters, system parameters and development of intersection databases and graphics. This task also includes converting all of the existing provided time-of-day timing plan information into SCATS format.

As a part of the acquisition, the SCATS software will be provided with a 16-intersection license with a two-year free upgrade option (from date of purchase), and will be the latest version of software available at the time of deployment. TransCore will also integrate the computers with the SCATS intersection communications network, including providing all necessary cabling.

As-built documentation including detector mapping diagrams and communication network diagrams will be provided as a part of the installation. Standard testing procedures with be provided and conducted during the implementation process to provide confirmation that the system works as expected. Design documentation that details the system configuration to be provided

TransCore will provide Active-X controls (including intersection, intersection legend, detector, detector legend and pedestrian controls) for the existing TransSuite ATMS Map and ATMS Explorer products currently used by the City to provide real-time status data for SCATS intersections. The Active-X controls will be integrated with the existing ATMS Map and ATMS Explorer products. The user will be able to activate the SCATS user interface from the SCATS intersection status control on the existing ATMS map.

It is anticipated that construction will begin during the late winter months (March), although we have shown several months duration to insure there is flexibility in the project schedule to accommodate delays associated with software integration or other stages of the project.

The evaluation will be conducted by Portland State University with assistance from Transcore. Portland State University will test the various elements of the project by using data from the Transuite system and other available data to assess the performance of the system.

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# Part 1 - Section 1

# **Project Summary**

#### **Project Name**

99W Active Corridor Management

# **Applicant and Project Partners**

Lead Agency: ODOT Region 1, Dennis Mitchell, (503) 731-8258

Role: ODOT Region 1 will provide:

- Overall project management
- Development of design plans for traffic signal controller upgrades, detection, cameras, and communications
- Development, implementation, and fine-tuning of updated traffic signal timings
- Continued operation and maintenance of all project traffic signals

Partner Agency: City of Tigard, Mike McCarthy, (503) 718-2462

**Role:** The City of Tigard will supply expertise on the local issues for both the design and installation phases.

#### **Project Location**

The OR 99W project corridor is located in the City of Tigard between I-5 and SW Durham Road. The four- mile corridor includes 21 signalized intersections:

- OR 99W & I-5 NB Ramps/60<sup>th</sup> Ave
- OR 99W & I-5 SB Ramps/64<sup>th</sup> Ave
- OR 99W & SW 69<sup>th</sup> Ave/68<sup>th</sup> Pkwv
- OR 99W & SW 72<sup>nd</sup> Ave
- OR 99W & SW 74<sup>th</sup> Ave
- OR 99W & SW Dartmouth St/78<sup>th</sup> Ave
- OR 99W & OR 217 NB Ramps
- OR 99W & OR 217 SB Ramps
- OR 99W & SW Hall Blvd
- OR 99W & SW Greenburg Rd/Main St (north)
- OR 99W & SW Main St (south)/Johnson St

- OR 99W & SW Walnut St.
- OR 99W & SW Garrett St
- OR 99W & SW Park St
- OR 99W & Tigard Marketplace
- OR 99W & SW Gaarde St/McDonald St
- OR 99W & SW Canterbury Ln
- OR 99W & SW Bull Mountain Rd
- OR 99W & SW Beef Bend Rd
- OR 99W & SW Royalty Pkwy
- OR 99W & SW Durham Rd

#### **Project Description**

Traffic volumes along OR 99W range from 45,000 vehicles per day (vpd) near Durham Road to 54,000 vpd near the I-5 ramps, which is the highest volume on any five-lane arterial state highway in Oregon. The biggest challenge along the OR 99W corridor is providing service to all of the system users, including autos, trucks, buses, and pedestrians. The traffic volumes and the closely spaced intersections, especially between 72<sup>nd</sup> Avenue and Main Street/Greenburg Road, result in congested conditions and excessive queuing during the peak hours.



The OR 99W Active Corridor Management Project will upgrade the traffic signal controllers and local intersection software at 21 intersections along the corridor (see map in Section 2). All of the traffic signals are owned, maintained, and operated by ODOT. The existing Model 170 traffic signal controllers using Wapiti software will be upgraded to Model 2070 traffic signal controllers using Northwest Signal "Voyage" local software. In addition to the controller and software upgrades, the project will install wireless system detection at six locations and CCTV cameras at two locations. The coordinated signal timing plans along OR 99W will be updated to reflect current volumes and travel demand patterns.

The project will allow for better traffic signal coordination, transit signal priority, improved preemption recovery, improved system monitoring and fine-tuning capabilities, better pedestrian signal phasing, new tools to handle variations in traffic peaks, improved special event traffic control, and better traveler information.

#### **Project Schedule**

It is anticipated the project will be completed within 21 months. See Section 2 for details.

#### **Financial Summary**

Task	Requested Funding	Non-Cash Match*	Total Value
Project Administration	\$0	\$10,000	\$10,000
Project Design/Development	\$87,000	\$6,000	\$93,000
Construction	\$254,500	\$18,000	\$272,500
System Operations/Integration	\$88,500	\$6,000	\$94,500
Contingency	\$86,000	\$6,000	\$92,000
Construction Engineering/ Project Management	\$35,000	\$2,000	\$37,000
Project Evaluation	\$35,000	\$2,000	\$37,000
TOTAL	\$586,000	\$50,000	\$636,000

<sup>\*</sup> The non-cash match consists of staff time: \$45,000 ODOT and \$5,000 City of Tigard.

#### **Certification Statement**

I certify that the Oregon Department of Transportation supports the proposed project, has the legal authority to pledge matching funds, and has the legal authority to apply for project funds. I further certify that any proposed matching funds are available or will be available for the proposed project. I understand that this is not a grant application, that it is a request for reimbursement through the federal aid system, and that all federal rules for contracting, auditing, and payment will apply to this project.

Printed Name Jagon

Date 6/50/08
Title Region 1 Manager



# Part 1 - Section 2

# **Narrative**

# **PROJECT BENEFITS**

This project will provide significant public benefit on one of Oregon's busiest arterial corridors: OR 99W from I-5 to Durham Road in the City of Tigard. This section discusses the need for this project, the available opportunities, the expected immediate and long-term benefits, and a proposed evaluation plan.

#### The Need

This segment of OR 99W within the City of Tigard has historically been, and continues to be, a bottleneck in the Portland regional transportation system. OR 99W (a Statewide Highway and Freight Route) bisects the heart of Tigard, provides local access to many businesses, and moves people and goods on a region wide level. Regionally, it provides a vital link between the Portland metropolitan area and the Willamette and Yamhill Valleys, Newberg, McMinnville, and the Oregon coast. While it is challenging to provide service to all of the many system users (including autos, pedestrians, trucks, and transit), the two largest corridor problems today are:

- 1. Traffic volumes range from 45,000 to 54,000 vehicles per day<sup>1</sup>, indicating OR 99W is at or near capacity.
- 2. The traffic signal timing for the 21 corridor signals was last updated in 1998. Over the last 10 years traffic volumes have increased two percent per year and traffic patterns have shifted due to changes in development and the local roadway network.

Other issues resulting from the high traffic volumes and outdated traffic signal timing or issues that contribute to these problems include:

General	<ul> <li>Traffic increases during the AM peak and stays relatively constant throughout the day, unlike typical AM and PM peaks experienced on other roadways.</li> <li>Closely spaced intersections, especially between 72<sup>nd</sup> Avenue and Main Street/Greenburg Road, contribute to excessive queuing and congestion.</li> </ul>
Autos	<ul> <li>Traffic volumes vary since OR 99W serves local, commuter, and tourist traffic.</li> <li>Near the commercial areas the need to move vehicles and pedestrians across OR 99W competes with the need to move traffic along OR 99W.</li> <li>Congestion on OR 99W causes thousands of vehicles to use local streets daily, which causes safety and livability issues in Tigard's neighborhoods.</li> </ul>
Trucks	<ul> <li>Delays to freight result in economic losses, both locally and regionally.</li> <li>Trucks take longer to start up, particularly on northbound upgrades.</li> <li>Trucks need more distance to stop, particularly on southbound downgrades.</li> </ul>
Transit	<ul> <li>Travel times and service reliability of TriMet's 190 buses on three OR 99W routes (#12, #64, and #94) are negatively impacted by congestion.</li> <li>Demand to Main Street will increase this fall when Commuter Rail opens.</li> </ul>



New Features of Model 2070

Controllers with Voyage Software

Preemption RecoveryRepeat Service Phase

■ Late Pedestrian Phase

■ Dynamic Length Adjustments



# The Opportunity

Several recent developments point towards active corridor management as an effective tool for improving operating conditions on OR 99W:

- 1. The OR 99W corridor planning effort<sup>2</sup> found capacity improvements to be cost-prohibitive and to negatively impact adjacent properties.
- 2. The City of Portland implemented a regional traffic signal system server, which is intended for use by all agencies in the metropolitan area who operate traffic signals. This system allows remote monitoring and operations of traffic signals.
- 3. ODOT recently adopted a new Model 2070 traffic signal controller standard and Northwest Signal Voyage software standard, which provides better functionality than the technology used for the past 30 years.

Data collected from this project can be archived in the PORTAL regional data warehouse and evaluated for project performance and can also be disseminated through ODOT's TripCheck traveler information web site. Additionally, the existing opticom detectors can be used to provide transit signal priority (green extensions or early release) when certain parameters are met (e.g. a bus behind schedule) to improve the reliability of the transit system.

# **Immediate and Long-Term Benefits**

Active corridor management takes advantage of many technologies that have been successfully deployed in Oregon and around the country and is expected to produce both quantitative and qualitative benefits. Reductions in travel time, stops, delay, and vehicle emissions are the quantitative benefits expected from active corridor management. A sampling of results from recent signal timing projects on Portland metropolitan area arterial corridors include:

		Projec	t Reductions i	n:
Location	Travel Time	Delay	Stops	Fuel Consumption/ CO <sub>2</sub> Emissions
Gresham, OR	15 – 30%	Up to 80%	35 – 65%	Not Available
Portland, OR	Up to 40%	Up to 50%	Up to 35%	Up to 30%
Vancouver, WA	Up to 15%	20 – 40%	20 – 25%	Up to 10%
Wilsonville, OR	15 – 45%	65 – 90%	50 – 75%	Up to 20%

The project is also expected to provide other qualitative benefits:

- Deployment of new wireless detection technology to reduce installation costs
- Ability to change signal timings based on current conditions, which in turn reduces recurring and non-recurring congestion
- Ability to monitor intersection performance
- Demonstration of ability to post and archive intersection data on PORTAL web site



#### **Evaluation Plan**

In order to monitor the success of the project several evaluation tasks will be performed:

- Database Comparison: Measure of effectiveness (MOE) logs in the Wapiti W4IKS database will be recorded for a period of time prior to upgrading the controllers. The same MOEs will be used in the Voyage database so conclusions can be drawn about the changes at individual intersections as a result of updated signal timings.
- Travel Time Surveys: A series of floating car surveys will be conducted to compare the travel times for three scenarios:
  - Existing controllers/software and existing signal timings
  - New controllers/software and existing signal timings
  - New controllers/software and updated signal timings
- NWS Software Feature Evaluation: An assessment will be made to determine the reduction in delay associated with the "Repeat Phase Service" and how the "Dynamic Length Adjustment" feature impacts the overall signal operations.

# **TECHNICAL MERIT**

This section describes the project delivery approach, regional operations strategy, technology components, and key personnel, and resources that will be used to achieve this project.

#### **Project Delivery Approach**

The OR 99W project effort will be led by ODOT, who will work with a Consultant team and software vendors as needed to complete the project. City of Tigard staff will provide insight into the local issues to help develop the new coordinated signal timing. Any Consultants hired to help on this project must be able to prepare design plans, develop and implement coordinated signal timings, and understand all project software (TransSuite and Northwest Signal Voyage).

#### **Project Development Planning**

OR 99W was identified as a priority corridor for active corridor management in the *ODOT Region 1 ITS Plan* (2005)<sup>3</sup> and the City of Tigard and ODOT recently completed a corridor plan for OR 99W<sup>2</sup> that is in the adoption process. While OR 99W is pushing the upper limits of capacity for its current five-lane section, the corridor planning effort provided a much better understanding of the extreme costs and property impacts (many businesses would have to be removed) of widening this corridor. Modeling shows significant latent demand that would absorb an extra lane of capacity in each direction even if extra lanes could feasibly be added. Therefore, transportation system management is the chosen strategy for this corridor, and maximizing the efficiency of the traffic signals is a key part of this plan. Other aspects of this plan, such as access management, improved bicycle and pedestrian facilities, and improved

#### **Project Delivery**

# Preliminary Engineering

- -Concept of Operations
- -Functional Requirements
- -PS&E Development
- -Testing Plan

#### Construction

- -Bidding Period
- -Install Field Equipment
- & Communications

#### Implementation

- -Integrate Systems
- -Testing & Training
- -Modify Signal Timings

Project Evaluation - Documentation



transit service and access to transit, are being pursued through other projects that would be complementary to this one.

#### **Regional Operations Strategy**

Portland area public agencies pride themselves on working together to operate traffic signals and develop intelligent transportation systems that provide cost savings and other operational benefits for jurisdictions in the region. This active management project supports this regional theme as well as the application areas included in the TransPort operational concept for the Portland metropolitan area<sup>4</sup>:

Regional Traffic Control	Integration of ODOT traffic signals with the regional central traffic signal system, network surveillance
Traveler Information	Information dissemination through TripCheck
Incident Management	Monitoring capabilities that support incident response
Public Transportation Services	Transit signal priority
Archived Data Management	Data integration with PORTAL data warehouse

# **Technology Components**

Technology Component	Details	
2070 Traffic Signal Controllers	New controllers will be installed in existing cabinets at each of the 21 intersections along OR 99W in Tigard.	
NWS Voyage Software	Each traffic signal controller will be configured with Voyage local traffic signal software.	
TransSuite Central System	All of the traffic signals will be connected to the TransSuite central signal system allowing for data sharing among regional agencies.	
Vehicle Detectors	Wireless detectors will be deployed at six locations and can be used as intersection detectors and/or system detectors. The intersection signal controller will collect the detector data.	
CCTV Cameras	CCTV cameras will be installed at two locations.	
Communications	The use of Ethernet over copper devices at each intersection and the installation of fiber optic cable in existing conduit will enhance communications along OR 99W.	

#### **Key Personnel and Resources**

Key personnel for the project will include:

- ODOT Dennis Mitchell, Doug Anderson, and other staff have many years of experience operating and maintaining the ODOT signal, detection, and camera systems.
- City of Tigard Mike McCarthy provides knowledge of local issues regarding traffic and circulation on OR 99W.
- Consultant Team ODOT will hire outside resources as needed to complete the project.



These key personnel will work together to successfully complete the project along with a construction Contractor who will install the cameras and communications. ODOT staff and/or the Consultant team will install the 2070 controllers, configure the intersections in the central traffic signal system, and implement local and coordinated signal timings.

The NWS Voyage software can be used at any ODOT intersection in the state per ODOT's statewide license agreement. The upgrade simply requires replacing the existing model 170 traffic signal controllers with new model 2070 controllers and transferring the signal timing parameters from the existing Wapiti W4IKS software to the Voyage software. This work can be performed by ODOT or the software vendor.

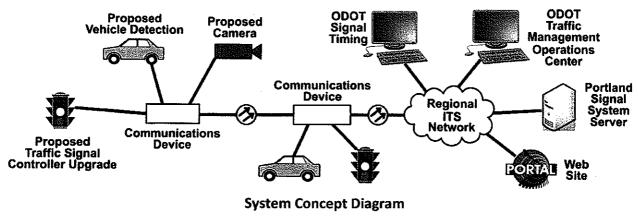
# PROJECT INNOVATION AND IMPORTANCE

The deployment of cost-effective and proven technologies, which produce significant benefits to travelers along one of the most congested corridors in Oregon, make this project both innovative and important. Although model 2070 controllers and the Voyage software have been installed at a limited number of intersections in Oregon they have already demonstrated significant operational improvements compared to the current software used.

An important aspect of this project is the advancement of cost-effective tools for use on arterial corridors: wireless detection technology that can be used for performance monitoring, Ethernet over copper, and dynamic timing adjustments. This section discusses the concept demonstration, the project's relevance to advancing the state of the practice in Oregon, and the transferability of the concepts to other agencies in Oregon.

## **Concept Demonstration**

This project fits into Demonstration Category 3, which is "demonstration of a concept or technology that has already been demonstrated in Oregon, but through the proposed project, experience will be expanded to other agencies or other areas of the state". This project will show how active corridor management tools can be used to significantly reduce travel times, delays, stops, and emissions. The complete system will include transit signal priority and integration of traffic signals, detection, and cameras into one common control system using the region traffic signal system, the PORTAL web site, and the ODOT TOC software.





#### **Project Relevance to State of the Practice**

This project will elevate ODOT's capabilities to provide a complete cost-effective management solution to key arterial roadways in the Portland metropolitan area by integrating field devices with regional systems. Until now many of these devices and systems have been deployed independently and have not been utilized to their full potential. This project will include wireless solutions for vehicle detection and advance the state of the practice by using the wireless detection equipment to collect and store arterial performance measures.

#### **Project Transferability**

Many components of this project can be directly transferred to other projects by ODOT Region 1, other ODOT regions, and other agencies. ODOT staff will become familiar with the new controllers and software, which will make future installations very straightforward. It is anticipated that arterial management guidelines will be developed as part of this project for use on future corridor management projects.

#### IMPLEMENTATION READINESS

The use of proven technologies that are supported by local vendors will be the key to the success of this project. This section addresses the availability of the technology, how the concept has been demonstrated, and the agreements already in place.

#### **Technology Availability**

The proposed Model 2070 traffic signal controllers and NWS Voyage software are both field ready and were recently adopted by ODOT as their new standard. CalTrans has successfully been using 2070 controllers for several years. Voyage local software has been operating in the field at approximately 50 intersections within the state Oregon. In addition, the PORTAL regional data warehouse has already been developed by Portland State University and will be used to archive data collected by the project systems so it can be used for evaluation purposes.

#### **Concept Demonstration**

The City of Portland outfitted 28 intersections on Interstate Avenue with new model 2070 controllers on and communications to TransSuite. New 2070 controllers and Ethernet over copper are also being installed by the City as part of the downtown Portland Mall transit project. The City of Gresham and Clackamas County have established communications to the central traffic signal system server including.

The City of Portland 2070 traffic signal controller installation has already produced results:

- Wait times for left turn movements and minor street approaches reduced by three minutes
- Improved movement of through traffic on the major arterial
- Reduced number of cycle failures throughout the day (Cycle failures result when a red light comes up before a movement's queue is able to clear the intersection. These can significantly increase delay.)



The preemption recovery feature provides different options for getting signals back into step after emergency preemption that reduce the amount of delay associated with these events

#### Agreements

This project will not require any new agreements:

- The City of Portland and ODOT have an existing agreement to share the central traffic signal system and communications infrastructure.
- ODOT has an existing statewide license for the NWS Voyage software.

# **ON-GOING OPERATIONAL COST EFFECTIVENESS**

An overview of the anticipated operations and maintenance costs and skill requirements is provided in this section. New software is not required because the project elements can be integrated with existing processes and software.

#### **Operations and Maintenance Costs**

The operations and maintenance costs required to support this project will be similar to the current investment. Some additional time will be

#### Existing Process/Software Integration

- Traffic Signal Controllers: Will be connected to TransSuite central traffic signal system
- Data (from detectors and controllers):
   Will be uploaded to PORTAL web site
- Cameras: Will be connected to ODOT's existing ATMS software

required to maintain the new field devices, but some of the new system monitoring features could save maintenance trips to the field resulting in a more efficient use of staff time (proactive versus reactive). For example, the new signal controllers will provide alarms (e.g. communications failure, stuck detector) and remote diagnostic tools.

Additional operations effort will be required to ensure maximum system effectiveness, but typically these systems require an average of one hour per day for an existing staff person. Typically this hour of effort is spent monitoring alarms or other data collected (volumes, phase times, etc.), responding to citizen complaints, monitoring intersection and corridor performance, and making signal timing adjustments based on actual traffic conditions.

#### **Maintenance Skill Requirements**

Essentially the same skill set used to maintain the existing traffic signal system will be required to maintain the proposed hardware and software that will be installed with this project. The 2070 local software vendor will train ODOT staff on the use, operation, and functionality of the software. The vendor has demonstrated a commitment to providing prompt and reliable technical support for other agencies currently using the software.



# **SUPPORT**

Support for this project is available in non-cash match funds, direct government agency and public support, regional and statewide transportation planning efforts, and leverage from other investments:

Non-Cash Match Funds	<ul> <li>\$45,000 in Staff Time from ODOT Region 1 Operating Budget (funds available Oct. 1, 2008)</li> <li>\$5,000 in Staff Time from City of Tigard</li> </ul>	
City of Tigard Support	City Council approved a resolution to prepare and submit this grant application jointly with ODOT.	
Community Support	The public generally supports any strategies that reduce delay an travel time without adversely impacting adjacent properties.	

#### **Supporting Transportation Plans**

Regional plans and regional/statewide goals support the OR 99W corridor elements described in this proposal:

Projects Supported by Proposal	ODOT Region 1 ITS Plan <sup>3</sup>	Chapter 5- Urban Arterial ITS Plan: OR 99W elements in Tables 5-10 and 5-11
	99W Improvement and Management Plan <sup>2</sup>	Identifies numerous signal timing updates that would enhance corridor operations
	Metro 2035 RTP (Final Draft) <sup>5</sup>	Project 10770 (OR 99W Intersection Improvements that retain 5-lane cross-section), Project 10907 (OR 99W High Capacity Transit)
Goals Supported by Proposal		Goal 4 – System Management: Actions 4.1.1, 4.1.3, 4.1.4, 4.1.5, 4.1.7
	Oregon Transportation Plan <sup>6</sup>	Goal 2 – Management of the System: Strategies 2.1.1 and 2.1.3

# **Project Leverage on Other Investments**

This project leverages several key investments:

- Portland regional central traffic signal system
- ODOT procurement of NWS Voyage software for statewide use
- **■** Complements Tigard Downtown redevelopment efforts
- Complements upcoming OR 99W/Hall Boulevard and OR 99W/Greenburg Road projects
- ODOT fiber optic cable for the backbone communications

# **ACTIVE TRAFFIC AND INCIDENT MANAGEMENT**



#### PART 1 - SECTION 1 - PROJECT SUMMARY

**ODOT REGION 1** 

NAME: Active Traffic and Incident Management (ATIM)

**APPLICANT AND PROJECT PARTNERS:** The ATIM project is led by Oregon Department of Transportation (ODOT) in collaboration with City of Portland. The Project Manager (point of contact on behalf of the applicant) is:

Dennis Mitchell
Oregon Department of Transportation
123 NW Flanders Street
Portland, Oregon 97209-4037
(503) 731-8218

**LOCATION:** The project is located in the Portland metropolitan area and includes the I-5/I-405 downtown loop. A detailed map showing the project limits is included in Part 2.

**DESCRIPTION:** The project goal is to improve travel time reliability resulting from incidents in the I-5/I-405 downtown loop and recurring congestion at a key bottleneck at the south end of the I-5/I-405 downtown loop. To improve travel time reliability this application includes two distinct projects:

- Project 1 One-Year Pilot Project to Improve Towing Performance
- Project 2 Active Traffic Management (ATM) to Improve Travel Times Through a Key Portland Area Bottleneck

The one-year towing performance project expects to reduce tow truck arrival time from 15 minutes to 10 minutes. Based on the Portland Operations Steering Team (POST) "autopsy of a crash", each minute saved in tow truck arrival time is worth approximately \$2,000. Since nearly one-half of all ODOT ordered tows are from locations within the downtown loop, I-5 and I-405 between Marquam and Fremont Bridges, the potential savings are significant. The POST Traffic Incident Management Team estimates the benefit to cost ratio for the towing performance improvements of 10 to 1.

The Active Traffic Management Project proposes to implement speed harmonization (variable speed limit signs) and a queue warning system (changeable message signs) to reduce congestion, reduce crashes and improve travel times through the existing bottleneck where southbound I-5 and southbound I-405 merge. The bottleneck occurs because southbound I-5 and I-405 merge with SW Harbor Drive and SW Hood Avenue. Effectively six southbound lanes merge to three southbound lanes within one mile. This lane reduction results in a severe bottleneck and recurring congestion daily. The subsequent congestion and queuing extends north on I-5 and I-405 creating a hazard as high speed, free-flow freeway traffic approaches the end of a slow moving queue. On both I-5 and I-405 this is a particular hazard because horizontal curves before the merge limit sight distance to potential slow moving queues.



**PROJECT SCHEDULE:** The project will be designed, constructed, and installed within 36 months.

FINANCIAL SUMMARY: The following table illustrates the project's financial summary broken down by project phase and matching funds.

Task	Requested Funding	Non-Cash Match*	Total Value
Project #1: To	owing Performan	ice	11
Towing Services	\$200,000	\$0	\$200,000
Evaluation	\$25,000	\$0	\$25,000
PROJECT #1 TOTAL	\$225,000	\$0	\$225,000
Project #2: Activ	e Traffic Manag	ement	
Project Administration	\$0	\$10,000	\$10,000
Project Design/Development	\$225,000	\$25,000	\$250,000
Construction	\$835,000	\$0	\$835,000
Contingency	\$190,000	\$20,000	\$210,000
Construction Engineering/ Project Management	\$115,000	\$10,000	\$125,000
Public Outreach	\$85,000	\$0	\$85,000
Project Evaluation	\$55,000	\$5,000	\$60,000
PROJECT #2 TOTAL	\$1,505,000	\$70,000	\$1,575,000
TOTAL PROJECT REQUEST	\$1,730,000	\$70,000	\$1,800,000

<sup>\*</sup> The non-cash match consists of ODOT Region 1 staff time.

### **CERTIFICATION STATEMENT:**

I certify that Oregon Department of Transportation supports the proposed project, has the legal authority to pledge matching funds, and has the legal authority to apply for project funds. I further certify that any proposed matching finds are available or will be available for the proposed project. I understand that this is not a grant application, that is a request for reimbursement through the federal aid system, and that all federal rules for contracting, auditing, and payment will apply to this project.

Date

6180 til

Printed Name Jason Tell

Title Region 1 Wanager



### PART 1 - SECTION 2 - NARRATIVE

### **ODOT REGION 1**

States that are providing active systems management and operations are aggressively pushing highway incident response programs and new technologies are enabling us to achieve more benefits with existing systems then ever before. This application presents two incident management projects that can open travel lanes faster and reduce primary and secondary crashes.

Opening lanes faster is critical for achieving more "reliable" travel times while reducing crashes is necessary to save lives and ensure the lanes are not blocked in the first place. Table 1 illustrates how severely a blocked lane can affect throughput capacity on the freeway. Restoring

this capacity quickly is essential to reducing travel times and secondary crashes that block the road all over again.

This project application presents two projects targeted at detecting, clearing and reducing the frequency of blocked lanes in the Portland downtown I-5/I-405 loop.

**Table 1:** Percent of lost throughput capacity due to lane or shoulder blocking incidents<sup>1</sup>

		${f L}$	anes Blocke	èd
# of	Shoulder		•	3
lanes	Blocked			3
2	19%	65%	0%	n/a
3	17%	51%	83%	0%
4	15%	42%	74%	87%
5	13%	35%	60%	80%
6	11%	29%	50%	74%

- Project 1 Improve Towing Performance. One-year pilot project to reduce tow response and clearance times of disabled vehicles.
- Project 2 Active Traffic Management (ATM). Speed harmonization and queue warning system targeted at a key Portland area freeway bottleneck

While this application is for both projects, application reviewers should understand that each project can be funded as a separate stand alone project. Both projects together will provide the greatest benefit, but each can be selected individually.

## **Project Benefits**

Because both projects could be funded individually, the expected benefits from both projects are presented separately.

### Project 1 - Improve Towing Performance

This project proposes a one-year pilot project to reduce towing response, recovery and clearance times for disabled vehicles in the I-5/I-405 downtown loop. Every month, approximately 60 tows

Table 2: Summary of benefits and costs of staged tow trucks<sup>2</sup>

Annual Benefit	Annual Cost	Benefit/Cost Ratio
\$2,000,000	\$200,000	10:1

are ordered by ODOT's incident response team not including additional tows ordered by Portland Police. Approximately one-third of these tow requests are ordered during the most congested time period (3 to 7 p.m.) and nearly



one half of all ODOT-ordered tows are from locations within the downtown loop (I-5 and I-405 between Marquam and Fremont Bridges). On average, the arrival time for a tow dispatched to the downtown loop is 15 minutes. By staging tow trucks (one truck from 9 a.m. to 3 p.m. and two trucks from 3 to 6 p.m.) in the downtown loop area, the Portland Operations Steering Team (POST) estimates the arrival time of trucks to incident location will be reduced from 15 minutes to 10 minutes. Since each minute saved is worth approximately \$2,000, the expected annual benefit is approximately \$2 million worth of saved time for the traveling public. The project is expected to produce a benefit cost ratio of 10 to 1 and return on investment of less than one year.

## Project 2 - Active Traffic Management (ATM)

The Active Traffic Management Project proposes to implement speed harmonization (variable speed limit signs) and a queue warning system (changeable message signs) to reduce congestion, reduce crashes and improve travel times through the existing bottleneck where southbound I-5 and I-405 merge. The bottleneck occurs because southbound I-5 and I-405 merge with SW Harbor Drive and SW Hood Avenue. Figure 1 illustrates the southbound I-5/I-405 bottleneck. Effectively six southbound lanes merge to three

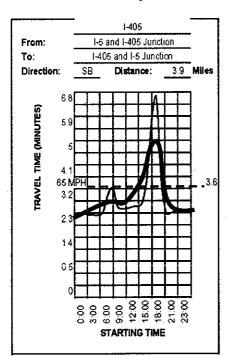


Figure 2: Hourly travel times on I-405 SB

southbound lanes within one mile. This lane reduction results in a

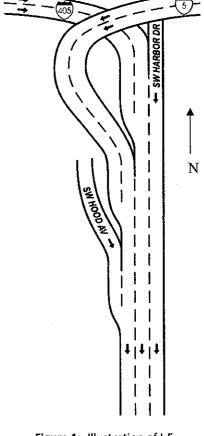


Figure 1: Illustration of I-5 southbound bottleneck

severe bottleneck and recurring congestion daily. The subsequent congestion and queuing extends north on I-5 and I-405 creating a hazard as high speed, free-flow freeway traffic approaches the end of a slow moving queue. On both I-5 and I-405 this is a particular hazard because horizontal curves before the merge limit sight distance to potential slow moving queues.

To prioritize locations for ATM solutions, ODOT has examined crash history, vehicle volume and speed data at several downtown bottlenecks in the Portland metropolitan area. Analysis of travel times and speeds on I-405 southbound indicates significant stop and go traffic conditions during the peak hours of congestion (3 to 7 p.m.). During peak congestion, travel times are more than twice free flow conditions (6.8 minutes peak travel time vs. 3 minutes at free flow speed). Figure 2 illustrates the travel time variation on southbound I-405 and presents an



estimate of travel times resulting from the application of speed harmonization and queue warning.

In addition, an analysis of crashes on I-405 southbound between milepost 0.00 and 2.00 clearly shows a high rate of rear end crashes (see Table 3). These rear end crashes are directly related to the high variability in speeds; southbound vehicles at highway speed unexpectedly approaching a slow moving or stopped queue. The southbound queue can be directly attributed to the bottleneck identified in Figure 1. The combination of high rate of rear end crashes and

Table 3: 1-405 Southbound Crash History<sup>3</sup>

## I-405 Southbound MP 0.00 to 2.00 2005 to 2007 Crash History

- 57 total crashes:
  - 65 percent were rear end collisions
  - 47 percent occurred between 3 and 7 p.m.
- This segment ranks within the top 5% of all ODOT SPIS sites

"unreliable" travel times make this bottleneck a high priority candidate for application of ATM techniques that include speed harmonization and queue warning system.

Benefits from a simulation of speed harmonization and queue warning in Washington estimate significant benefits:

### Speed harmonization benefits

30 percent reduction in collisions

## Queue warning system benefits

15 percent reduction in collisions

For the application of speed harmonization and queue warning on southbound I-5 and I-405, this project anticipates a 15 to 20 percent reduction in crashes.

### **Project 1 - Towing Performance Project Evaluation**

Evaluation of the towing performance project will take advantage of data currently stored by ODOT and PDOT to compare dispatch to scene arrival times for tow services. See Table 4.

**Table 4:** Tow data logs stored today will be used for the evaluation

### **ODOT/PDOT Tow Data Logs**

- Time of request for tow
- Time of arrival on scene
- Time of tow clearance

These data logs have been used by POST to identify current tow dispatch to arrival times and these logs will provide a cost effective and comprehensive means for evaluating performance and cost savings for the tow program.

# **Project 2 - Active Traffic Management Evaluation**

The active traffic management project seeks to improve travel time reliability and reduce rear end

crashes. Evaluation of the ATM project will be conducted with a combination of field data and simulation modeling to compare before and after corridor speeds and crashes.



- ODOT crash data The project will compare crashes for six months following implementation of the ATM solution. A long term evaluation of crash history should be conducted, but early results will be used to assess and provide feedback of the system performance.
- ODOT count stations Existing ODOT detectors will be used to compare before and after corridor conditions. Portland State University's PORTAL website will be used to generate graphical comparisons of before and after speed conditions.
- Simulation model A simulation model will be created to represent and compare the before and after corridor conditions.

## **Technical Merit**

Project 1 staged tow trucks is the result of more than twelve months of analysis on the Portland metropolitan freeways conducted by the POST Traffic Incident Management Team. The team recognized that quick clearance of disabled vehicles is a critical component of the incident management process and ultimately reduces the time that a lane is blocked. The team analyzed towing performance and determined that 15 minutes from tow request to arrival was unacceptable and could be improved. This project is the outcome of POST's effort to define the problem and identify an appropriate solution.

Portions of project 2 are not included in the Portland Region or Oregon ITS plans to date. However, many of the field devices are consistent with Oregon ITS plans and architecture. This concept applies new information flows and intelligence to existing field devices.

## **Project Approach**

For **Project 1 Towing Performance**, the goal is to reduce the tow truck arrival time from 15 minutes to 10 minutes. To achieve this goal, the project will stage one truck during the midday (9 a.m. to 3 p.m.) and two trucks during the PM peak (3 to 7 p.m.) on weekdays. The total cost per year for staged tow trucks will be \$200,000. Based on the historical and projected rate of tows, the cost would average approximately \$1,000 per-tow. Based on incident analysis conducted by the POST Traffic Incident Management Team, this project recommends to stage tow trucks near the Broadway Street interchanges in Northeast and Southwest Portland to maximize access to all parts of the loop.

For **Project 2 Active Traffic Management**, the project implementation will follow a rigorous systems engineering approach. The work plan will follow the general guidelines summarized below:

- Incorporate ATM in the TransPort Regional ITS Architecture and the Transportation System Management and Operations Plan.
- Develop a concept of operations, system functional requirements, and system test plan documents.
- Use the detector data to simulate the existing traffic conditions on I-405 SB and I-5 SB. Simulation will be used to fine-tune the algorithm required for speed harmonization and posting of advisory speed limits.
- Evaluate available off-the-shelf software solutions for speed harmonization. This project anticipates a stand alone software module to demonstrate the concept. The functional



requirements will identify ODOT standards to ensure the application is suitable for future integration with ODOT TOCS.

- Prepare construction plans. Locate Variable Speed Limit Signs (VSLS) and Changeable Message Signs (CMS) and available utilities such as power and communications.
- Prepare an outreach plan.
- Construct, integrate, test, verify and validate the system installation.

## **Project Innovation and Importance**

This application presents two concepts to address recurring and non-recurring congestion on the I-5/I-405 downtown loop. The most benefit can be achieved by deploying both concepts in parallel; however, each concept can be deployed exclusively.

### **Concept for Project 1 Improving Towing Performance**

Project 1 of this application would be the first of its kind in Oregon. Staging tow vehicles has been used extensively by the Washington State Department of Transportation with significant demonstrated benefits. The ODOT incident response vehicles patrol the Portland metropolitan area and have provided substantial benefit and assistance for stranded motorists. This towing program supplements the incident response program and ensures additional resources are available to quickly clear vehicles stalled or involved in a crash, and ultimately restores the roadway capacity.

## **Concept for Project 2 Active Traffic Management**

Project 2 will be the first demonstration of the ATM concept in the State of Oregon and likely the second in the Northwest. The Washington State Department of Transportation (WSDOT) has plans for a speed harmonization and queue warning project on a six-mile section of I-5 near Boeing Field that is scheduled for completion in late 2009. Typically ATM projects cost tens of millions to implement. Therefore, this project proposal is targeted to a very focused and specific problem area with a specific and clear need to demonstrate the potential benefits for future projects.

Excerpts from FHWA's report on ATM provide a high level description of the concept:

Active Traffic Management (ATM) is the ability to dynamically manage recurrent and non-recurrent congestion based on prevailing traffic conditions. It maximizes the effectiveness and efficiency of the facility. It increases throughput and safety through the use of integrated systems with new technology, including the automation of dynamic deployment to optimize performance quickly and without delay that occurs when operators must deploy operational strategies manually.

- Active Traffic Management: The Next Step in Congestion Management, Federal Highway Administration Report FHWA-PL-07-012, July 2007





Figure 3: Variable Speed Sign

The main purpose of this project is to reduce high speed rear end crashes and increase the throughput of I-5 southbound to ensure reliable travel times. The project seeks to achieve this purpose using speed harmonization and a queue warning system.

Speed harmonization makes the most of existing capacity by delaying the time when the traffic flow breaks down and stop-and-go conditions occur. Using speed harmonization, a traffic management system monitors travel data from an instrumented roadway. Once travel speeds and traffic

volumes reach a certain threshold set by the system's algorithms, the system automatically begins to reduce speeds incrementally across all lanes along the freeway upstream of where the congestion is heaviest. By slowing the speed of approaching vehicles prior to the bottleneck and queue, it is possible to reduce the travel time and improve safety. Figure 3 shows a typical variable speed limit sign. The recent crash history on I-405 southbound clearly indicates a p.m. peak period problem with high speed traffic approaching a slow moving queue. The combination of speed harmonization and queue warning are expected to smooth travel flow, reduce travel time and reduce the number of rear end crashes on I-405 and I-5 southbound.

The Queue warning system will supplement the variable speed limit signs to warn motorists of slowing or stopped vehicles ahead. It will use changeable message signs and existing ODOT communications infrastructure to supply information to the motorist. The concept for sign messages will be further developed during the concept of operations development stage. It is envisioned that blank out electronic message signs with a warning message such as "Queue Ahead" will be installed. Together the speed harmonization and queue warning system will reduce speed differentials and the likelihood of rear end collisions. Figure 4 shows a typical changeable message sign.

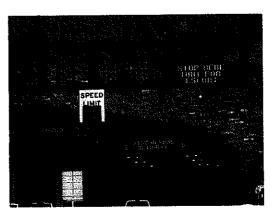


Figure 4: Changeable message sign with variable speed sign

## **Technology Components**

The proposed ATM solution takes advantage of existing equipment on ODOT freeways (cameras, communications and detection) and applies new field equipment that ODOT staff is familiar with as shown in Table 5. The project adds a new layer of intelligence to the system to dynamically adjust speeds and warn motorists of a potentially hazardous condition downstream.



Table 5: Technology components planned for active traffic management on southbound I-5 and I-405

Technology Component	Details
Variable Speed Limit Signs	Variable speed limit signs will be installed on southbound 1-5 and 1-405.
Changeable Message Signs	New CMS will display queue warning information. These signs will be a scaled down version of the typical ODOT freeway sign.
Variable Speed Software	An off-the-shelf variable speed software is envisioned for the initial implementation. A future phase would integrate the VSLS control within the ODOT TOCS.

If successful, the ATM solution demonstrated here should be expanded to other metropolitan freeways, as the solution works best when applied to a complete network. Due to the funds available for this application ODOT Region 1 has tailored the application to address a specific bottleneck issue.

## **Implementation Readiness**

Project 1 of this application is ready for implementation immediately. Staging tow trucks is a low cost method of reducing incident response and clearance time on congested corridors. It requires little start-up effort and the POST team is ready to begin the project when funding is secured.

The field devices recommended for Project 2 are existing standard devices that are available in the market and support NTCIP and ODOT standards. The software component will be a standalone application and will not be integrated with the ODOT ATMS software. Rather, the software will be an off-the-shelf application specifically for VSLS and queue warning control. A future phase should integrate the VSLS software with the ODOT Traffic Operations Center Software (TOCS).

ATM systems have been applied in countries such as Germany, Netherlands, and the UK, but are still relatively new in the United States. There are limited current applications of ATM solutions, but WSDOT has plans to construct a speed harmonization and queue warning system on I-5 by late 2009 and Caltrans is designing a complete ATM solution for the I-80 corridor in the San Francisco Bay Area. The ODOT ATM project proposed on I-5 southbound focuses a targeted solution at a specific problem and proposes the most successful ATM components to ensure success.

# **On-Going Operational Cost Effectiveness**

The cost associated with project 1 is nearly 100 percent for operations to cover the cost of staging tow trucks. This project will require 24/7 operations. The system will be most active during the p.m. peak period, but could be activated at all hours of the day if necessary. O&M costs for the WSDOT speed harmonization are estimated to cost approximately four percent of the implementation cost. At that same percentage, ODOT should anticipate a total annual



operating cost of approximately \$80,000 for the proposed ATM solution. The source for the ongoing operations and maintenance costs will be the Region 1 operating budget. Implementation of the speed harmonization software is currently envisioned as a separate standalone software package. Future integration of the speed harmonization software should be expected, but the current budget does not allow for integration with the existing ODOT ATMS or the current build of the ODOT Traffic Operations Center Software (TOCS).

Support

Matching funds will be provided for the ATM project by donated ODOT staff time. Value of the ODOT staff match will total approximately \$70,000. ODOT funds will be supplied from the ODOT Region 1 operating budget and will be available October 1, 2008.

The ATM project is not currently identified in any regional ITS plan, but it uses concepts from the *ODOT Region 1 ITS Plan* (July 2005) and supports regional and statewide objectives:

- ODOT Region 1 ITS Plan (July 2005)<sup>5</sup>: The Urban Arterial ITS Plan chapter
- *Metro 2035 RTP* (Final Draft)<sup>6</sup>: Goal 4 System Management (Actions 4.1.1, 4.1.3, 4.1.4, 4.1.5, 4.1.7)
- Oregon Transportation Plan<sup>7</sup>: Goal 2 Management of the System (Strategies 2.1.1 and 2.1.3)

The POST Traffic Incident Management team has invested significant effort analyzing incident response in the Portland metropolitan area and recommends the towing performance project as the top priority for improving incident management in Portland. The team fully endorses and recommends the tow performance project for funding.

ODOT Region 1 has identified ATM as the highest priority solution to address the bottleneck and crash problem at the southbound I-5/I-405 merge. ODOT is committed to improving system management and operations and ATM.

This project leverages several key investments in the project area:

- 1. ODOT system detectors
- 2. ODOT fiber optic cable for the backbone communications

These investments significantly reduce the cost to deploy ATM for this three-mile segment of I-5 and I-405.



### BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE	)	RESOLUTION NO. 09-4032
RECOMMENDATION OF THE POLICY	)	
ADVISORY GROUP REGARDING THE	)	Introduced by: Robert Liberty
LOCALLY PREFERRED ALTERNATIVE FOR	,	•
THE SELLWOOD BRIDGE PROJECT		

WHEREAS, Multnomah County owns and maintains the Sellwood Bridge in the City of Portland which is nearing the end of its service life and in the long-term requires either major rehabilitation or replacement; and

WHEREAS, Multnomah County secured federal funding for the public planning and decision-making process which included development of an Environmental Impact Statement in compliance with federal regulations of the National Environmental Policy Act; and

WHEREAS, the Oregon Department of Transportation provided \$1.5 million in matching funds toward the Environmental Impact Statement; and

WHEREAS, in June of 2006, the Multnomah County Board of Commissioners convened a Policy Advisory Group (PAG) made up of elected and appointed representatives of jurisdictions with an interest in the Sellwood Bridge; and

WHEREAS, the current P AG re presentatives a re Ted Wheeler (Chair of the Multnomah C ounty Board of C ommissioners), Sam A dams (Ma yor of the C ity of P ortland), Robert Liberty (Me tro Councilor), Jason Tell (Director of the Oregon Department of T ransportation - Region 1), Phillip Ditzler (Director of the Federal Highway Administration - Oregon District), Lynn Peterson (Chair of the C lackamas County B oard of County Commissioners), Greg Chaimov (City of M ilwaukie Councilor), Fred Hanson (Director at TriMet), Carolyn Tomei (Member of the Oregon House of Representatives); and

WHEREAS, by Resolution 06-084, the Multnomah County Board of Commissioners appointed a Community Task Force (CTF) of 20 citizens representing different points of view and interests to assist in the decision-making process by selecting and recommending a Locally Preferred Alternative (LPA) to the PAG; and

WHEREAS, the PAG was formed to review the recommendations of the CTF and to make their own recommendations. The recommendation that is approved by the Multnomah County Board of Commissioners will be considered by the Federal Highway Administration which has final authority in the matter of the locally preferred alternative; and

WHEREAS, the CTF beginning in June, 2006, analyzed the problems of the Sellwood Bridge project and the potential impacts of all proposed solutions, and on January 19, 2009 reached a consensus on a recommendation for the LPA; and

WHEREAS, the PAG met periodically between June 2006 and February 2009, and voted at five milestones to approve intermediate recommendations that led directly to the development of a locally preferred alternative; and



WHEREAS, the PAG considered the recommendations of the CTF and on February 6, 2009 formed its own recommendation on a Locally Preferred Alternative with conditions; now therefore

BE IT RESOLVED that the Metro Council approves the Policy Advisory Group LPA Decision (Exhibit A) with conditions adopted on February 6, 2009, and directs its staff to continue its participation with Multnomah County and other jurisdictions with respect to the LPA and the completion of a Final Environmental Impact Statement (FEIS).

ADOPTED by the Metro Council this 19th da	ay of March 2009.	
	David Bragdon, Council President	
Approved as to Form:		
Daniel B. Cooper, Metro Attorney		

### **Exhibit A**



# Policy Advisory Group LPA Decision

At their meeting on Friday, February 6, 2009, the Policy Advisory Group voted unanimously to endorse the following Locally Preferred Alternative (LPA) for the Sellwood Bridge Project with conditions:

- 1. Approval of bridge replacement rather than rehabilitation of the existing bridge;
- 2. Approval of alignment "D" (existing bridge alignment, widened to the south);
- 3. Approval of a pedestrian actuated signal at the SE Tacoma Street/SE 6th Avenue intersection at the east end of the bridge;
- 4. Approval of a grade-separated and signalized interchange at the intersection with Oregon 43 (Macadam Avenue) on the west end of the bridge;
- 5. Approval of a bridge cross-section of 64 feet or less at its narrowest point.

The Policy Advisory Group further directs their staff and the Multnomah County staff to refine the LPA design in accordance with the following conditions:

- Strive to reduce total project cost;
- Consider project phases as constrained by funding availability;
- Explore options for reducing the cost of the west side interchange;
- Either maintain or improve upon the "2035 no-build" traffic operational level-of-service;
- Design the bridge as narrow as possible while maintaining two vehicular travel lanes, bike lane/shoulders, and sidewalks;
- Produce a design consistent with the adopted Tacoma Main Street Plan;
- Design the bridge to accommodate streetcar use;
- Minimize impacts to affected property owners;
- Strive to use sustainable construction materials and practices.

### DRAFT STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 09-4032, FOR THE PURPOSE OF APPROVING THE RECOMMENDATION OF THE POLICY ADVISORY GROUP REGARDING THE LOCALLY PREFERRED ALTERNATIVE FOR THE SELLWOOD **BRIDGE PROJECT** 

Date: February 19, 2009 Prepared by: Tim Collins

503-797-1762

### **BACKGROUND**

After more than 80 years, the Sellwood Bridge has reached the end of its useful service life. The bridge was constructed in 1925 to replace the Spokane Street Ferry, which shuttled passengers across the Willamette River between Sellwood and southwest Portland. The bridge, approximately 1,900 feet in length, is extremely narrow – two lanes, no shoulders or median, and one sidewalk that must accommodate light poles, pedestrians, and bicyclist. The bridge crosses the Willamette River on SE Tacoma Street on the east end and intersects with Oregon Highway 43 on the west end.

The west end of the bridge was constructed on fill material and is located in a geologically unstable area. The hillside above the bridge is slowly sliding toward the Willamette River, exerting pressure on the west end of the bridge. In the late 1950s, the hillside slid several feet toward the bridge. As a result, a 3-foot segment of the bridge deck had to be removed and foundations were reinforced. The west-side interchange with Oregon Highway 43 was completely rebuilt in 1980. Since then, ground movement has caused the west-side approach girders to crack.

Multnomah County is the owner of the bridge, and continues to take steps to prolong the safe use of the bridge until a long-term solution is identified. In June 2003, cracks in both the east and west concrete approaches were discovered and restrained with external steel clamps. The weight limit for vehicles traveling across the bridge was reduced from 32 tons to 10 tons. This limit caused the diversion of 94 daily TriMet bus trips (a loaded bus weighs about 19 tons). The weight restriction is still in effect. In 2005, an engineering study recommended short-term safety improvements for the bridge; cracks in the girders and columns were injected with epoxy in 2008.

The Sellwood Bridge project is listed as Project 1012 on the 2004 RTP financially constrained project list for the RTP program years 2004 to 2009.

The purpose of the Sellwood Bridge project is to rehabilitate or replace the bridge to make it structurally safe. Additionally, the project would improve connections, operations and safety for vehicles, bicycles, and pedestrians. The bridge carries more than 30,000 vehicles per day, making it Oregon's busiest twolane bridge. Congested conditions and slow travel speeds occur because the travel demand served by the bridge exceeds the available capacity for several hours each day, primarily the morning and evening peak hours. Multnomah County has been working with ODOT, Clackamas County, the City of Portland, and Metro to find a solution for the bridge. The following four main issues identify the need for this project:

Inadequate structural integrity to safely accommodate various vehicle types (including transit vehicles, trucks, and emergency vehicles) and to withstand moderate seismic events

- Substandard and unsafe roadway design
- Substandard pedestrian and bicycle facilities across the river
- Existing and future travel demands between origins and destinations served by the Sellwood Bridge exceed available capacity

### ANALYSIS/INFORMATION

- 1. **Known Opposition** Persons living in the condominiums that will be directly impacted by the alignment of the recommended Locally Preferred Alternative.
- 2. **Legal Antecedents** In May 1999, Metro made recommendations (resolution #) for the *South Willamette River Crossing Study*, which included the Sellwood Bridge. One of the study's recommendations was to preserve the existing Sellwood Bridge, or replace it as a two-lane bridge with better service for bicyclist and pedestrians.
- 3. **Anticipated Effects** Adoption of the Locally Preferred Alternative will allow the project to move forward to develop a Final Environmental Impact Statement which will determine the bridge type and size as part of the NEPA process.
- **4. Budget Impacts** None known.

### RECOMMENDED ACTION

That the Metro Council approves the Policy Advisory Group LPA Decision (Exhibit A) with conditions adopted on February 6, 2009, and directs its staff to continue its participation with Multnomah County and other jurisdictions with respect to the LPA and the completion of a Final Environmental Impact Statement (FEIS).

### BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AMENDING THE 2008-	)	RESOLUTION NO. 09-4022
11 METROPOLITAN TRANSPORTATION	)	
IMPROVEMENT PROGRAM (MTIP) TO ADD	)	Introduced by Councilor Rex Burkholder
PROJECTS TO RECEIVE FUNDING FROM THE	)	
AMERICAN RECOVERY AND	)	
REINVESTMENT ACT	)	
	)	

WHEREAS, the Metropolitan Transportation Improvement Program (MTIP) prioritizes projects from the Regional Transportation Plan to receive transportation related funding; and

WHEREAS, the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council must approve the MTIP and any subsequent amendments to add new projects to the MTIP; and

WHEREAS, the JPACT and the Metro Council approved the 2008-11 MTIP on August 16, 2007; and

WHEREAS, the federal government recently passed the American Recovery and Reinvestment Act; and

WHEREAS, this act will provide approximately \$38 million dollars for distribution through Metro as the regions Metropolitan Planning Organization, \$44 million to TriMet and \$450,000 to South Metro Area Rapid Transit (SMART) for transit projects, and funding to the Oregon Department of Transportation, a portion of which will be allocated to highway projects in the Metro area; and

WHEREAS, all projects in the Metro area to receive these funds must be included in the MTIP; and

WHEREAS, these funds must be put to use in a short time frame in order to meet federal deadlines and stimulate the economy; and

WHEREAS, the projects listed in Exhibit A have been analyzed and found to conform to air quality regulations and regional transportation emissions budgets; and

WHEREAS, the public has had an opportunity to review and comment on these proposed projects; and

WHEREAS, an additional MTIP amendment will be brought to JPACT and the Metro Council to select additional projects for the remaining funds; therefore

BE IT RESOLVED that the Metro Council hereby adopts the recommendation of JPACT to amend the 2008-11 Metropolitan Transportation Improvement Program to add the projects listed in Exhibit A.

ADOPTED by the Metro Council this 5th day of March 2009.

# **DRAFT**

Approved as to Form:	David Bragdon, Council President	
Daniel B. Cooper, Metro Attorney	_	

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
City of Portland										
Portland	SE Madison			Preservation of arterial, transit, bicycle - grind and pave		\$1,050,000		Y	N/A	Y
Portland	SE 39th Avenue			Preservation of arterial, transit, bicycle - grind and pave		\$2,050,000		Y	N/A	Y
Portland	SE Hawthorne			Preservation of arterial, transit, bicycle - grind and pave		\$1,250,000		Y	N/A	Y
Portland	North Going Rail Overcrossing			Bridging funding gap to ensure completion	\$4,300,000	\$500,000	\$3,800,000	Y	1109	Y
Portland	Leadbetter Overcrossing			Adding rail crossing improvements at grade crossing	\$11,500,000	\$500,000		Y	4087	Y
Portland/TriMet	SW Columbia & SW Jefferson Bus Pads			Concrete Bus Pads on SW Columbia and SW Jefferson		\$500,000		Y	N/A	N - FTA
Portland/TriMet	SW 3rd & SW 4th Base Repair			Base repair and paving on areas of 3rd and 4th damaged by bus loads.  Preservation of arterial, transit, bicycle.		\$500,000		Y	N/A	N - FTA
Portland/TriMet	Lake Oswego Shoreline Trestles			Trestle repair to maintain level of service		\$200,000		Y	N/A	N - FTA
Portland/TriMet	SW Yamhill & SW Morrison brick intersections			Replacement of brick intersections on SW Yamhill & SW Morrison		\$1,000,000		Y	N/A	N - FTA
Portland	NW 23rd Avenue			Bridging Funding gap		\$432,000		N	1209	Y
Portland	So Auditorium Lighting Phase I			Replace foundation, poles, and lighting fixtures to a maintainable status.  Install conduit and power wire to a standard depth.	\$3,900,000	\$3,900,000		N	N/A	Y
Portland	Bicycle Blvd			Striping and Signage	\$1,000,000	\$1,000,000		N		Y
Portland	Paving SW Capitol Hgwy			Preservation of arterial, bicycle - grind and pave	\$2,000,000	\$2,000,000		N	N/A	Y
Portland	Paving NW Front Avenue			Preservation of arterial, freight, transit, bicycle - grind and pave	\$2,500,000	\$2,500,000		N	N/A	Y
Portland	Eastside Streetcar signals and ramps			2 signal upgrades, ADA curb ramps at intersections for Eastside Streetcar		\$1,486,832		N		Y
Portland	82nd Avenue and Columbia			Bridging Funding gap		\$1,000,000		N	4022	Y
Portland	Springwater Trail Repaving	UPRR Bridge	E City border	Repave Springwater Trail from Sellwood to City border		\$1,800,000		N		Y
				Subtotal:		\$21,668,832				
East Multnomah Co	ounty and Cities									
Gresham	Hogan Road	Glisan	Stark	Widen Hogan Road to city standards providing 4 travel lanes, 1 center left turn lane, bicycle lanes and sidewalks.	\$2,400,000	\$2,400,000		Y		Y
Multnomah County	Halsey St, Stark St, & Troutdale Rd Sidewalks Project	Multiple	Locations	Install sidewalks in 4 locations: NE Halsey St: 238th-244th, Stark St: 257th - Troutdale Rd., Troutdale Rd: S.E.18th-19th St. (eastside) and Stark St. to Beaver Creek (eastside).	\$1,725,000	\$1,725,000	\$0	Y		Y
				Subtotal:		\$4,125,000				

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)	
Clackamas County	Clackamas County and Cities										
Clackamas County	Sunnyside Road	82nd Ave	I-205	Paving and Replacement of Traffic Signal Video Detection System	\$1,802,000	\$1,170,000	\$632,000	Υ	n/a	Y	
Lake Oswego	Royce	Bryant	Westview	The project will dig out, grind and replace 2" of the entire asphalt surface	\$428,000	\$428,000	\$0	N	no	N	
Lake Oswego	McNary	Kerr	Kerr	The project will dig out, grind and replace 2" of the entire asphalt surface	\$416,000	\$416,000	\$0	N	no	N	
Lake Oswego	Willamette Shore Trolley	LO trestle		Trestle repair on Lake Oswego Trolley line	\$100,000	\$100,000	\$0	N	no	N	
City of Milwaukie	Linwood Ave Re-surfacing	Monroe St.	Railroad Ave.	2" grind & overlay	\$565,000	\$565,000	\$0	Y	n/a	Y	
City of Milwaukie	River Road Re-surfacing	McLoughlin	City Limit	2" grind & overlay	\$140,000	\$140,000	\$0	Υ	n/a	Y	
City of Milwaukie	Jackson Street sidewalks	Main Street	21st Avenue	Reconstruction of sidewalk/streetscape including street trees, utility undergrounding, street furniture, bulbouts, etc.	\$640,000	\$600,000	\$40,000 (design)	N	no	Y	
Oregon City	Molalla Avenue/Warner Milne/Beavercreek intersection	Warner Milne	Beavercreek	realign traffic intersection, update signal timing, add sidewalks	\$2,956,000	\$1,170,000	\$1,786,000	Y	n	Y	
City of West Linn	Santa Anita Dr. (North of Horton, per plan)	Horton Rd.	Hidden Springs Rd.	Reconstruction with Cement Treated Base and 6" of AC in 3 lifts	\$475,000	\$475,000	\$0	Y	n/a	Y	
City of West Linn	Santa Anita Dr. (South of Horton)	Horton Rd.	410' South to joint separation	Reconstruction and overlay	\$50,500	\$50,500	\$0	Y	n/a	Y	
City of West Linn	Hidden Springs Rd.	Cottonwood Ct.	Hwy 43	Reconstruction with Cement Treated Base and 6" of AC in 3 lifts	\$420,000	\$420,000	\$0	Υ	n/a	Y	
City of West Linn	Hidden Springs Rd.	Bluegrass Wy.	Cottonwood Ct.	Grind 2" and overlay with 2.5" AC	\$93,000	\$93,000	\$0	Y	n/a	Y	
City of West Linn	Suncrest Dr.	Hidden Springs Rd.	Carriage Wy.	Grind and 2" AC overlay with fabric	\$134,000	\$124,000	\$10,000	Y	n/a	Y	
Wilsonville	Barber Street Improvements	Boones Ferry Road	Boberg Road	Street preservation and upgrade with associated utility work.	\$1,000,000	\$400,000	\$600,000	Y	No	Y	
				Subtotal:		\$6,151,500					

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Washington Count	y and Cities									
Beaverton	Laurelwood Ave Sidewalk	Beaverton- Hillsdale Hwy	Birchwood Rd	Install sidewalk to provide safe pedestrian access to transit route and improve the livability of the neighborhood. Construct sidewalks and ADA ramps	\$343,000	\$343,000		Y	No	Υ
Beaverton	Birchwood Rd Sidewalk	87th Ave	Laurelwood Ave	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$170,000	\$170,000		Y	No	Υ
Beaverton	Farmington Rd Adaptive Signal Control Installation	Hocken Ave	Griffith Dr	Upgrade existing traffic signal control software to SCATS adaptive signal control system at 7 signalized intersections. The existing Model 170 signal controllers will be upgraded to 2070L signal controllers. In addition to these upgrades, the signalized intersections will be connected to the regional centralized signal control system for real-time remote monitoring and signal timing adjustments capabilities.	\$804,000	\$804,000		Y	10642	Y
Beaverton	Hall Blvd Overlay	Hart Rd	Ridgecrest Dr	Overlay	\$785,000	\$785,000		Y	No	Υ
Beaverton	Cedar Hills Blvd Adaptive Signal Control Installation	Millikan Way		update existing traffic control software to SCATs adaptive signal control system at 6 signalized intersections. The existing model 170 signal controllers will be upgraded to 2070L signal controllers. The signalized intersections will also be connected to the regional centralized signal control system for real time remote monitoring and signal timing adjustment capabilities.	\$906,000	\$906,000		Y	10642	Y
Beaverton	Cedar Hills Blvd Signal Re-timing	Millikan Way	Walker Rd	collect new traffic volumes and update the signal timing along the corridor	\$56,000	\$56,000		Υ	10642	Υ
Beaverton	87th Ave Sidewalk	Birchwood Rd	Canyon Rd	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$306,000	\$306,000		Y	No	Υ
Cornelius	Hwy. 8/Adair Blvd.	10th Ave	19th Ave	Utility connections, sidewalk repair and street furniture	\$289,502	\$289,502				Existing
Cornelius	10th Ave.	Alpine	Holladay	Construct sidewalks, illumination, bikeways, curb & gutter and on-street parking	\$2,354,000	\$2,354,000				Υ
Forest Grove	Town Center Ped Improvements			curb, sidewalks, lighting and multi-use amenities	\$500,000	\$500,000		Y	Y	Υ
Forest Grove	Town Center Ped Improvements			curb, sidewalks, lighting and multi-use amenities	\$1,100,000	\$1,100,000		Y	Y	Υ
Hillsboro	Intermodal Transit Facility	Baseline	7th & 8th	Construct parking structure with shared park & ride and transit oriented development	\$14,500,000	\$2,110,706	\$12,389,294	Y	N/A	Υ
Hillsboro	Various Street Overlays	N/A	N/A		\$2,110,706	\$2,110,706		Y	N/A	Υ
Sherwood	Sherwood Boulevard Overlay	3rd St	12th St	Grind & Overlay 2,740 LF of Collector status road	\$278,000	\$278,000		Y	N/A	Υ
Sherwood	Pine Street Overlay	1st St	3rd St	Grind & Overlay 837 LF of Collector status road	\$86,000	\$86,000		Y	N/A	Υ
Sherwood	1st Street Rehabilitation	Pine St	Ash St	Remove, CTB & Pave 490 LF of Collector status road	\$52,000	\$52,000		Y	N/A	Υ
Sherwood	Lincoln Street Overlay	Oregon St	Division St	Grind & Overlay 2,054 LF of Collector status road	\$95,000	\$95,000		Y	No	Υ
Sherwood	Pine Street Overlay			Paving	\$1,850,000	\$388,170	\$1,461,830			Υ
Tigard	Durham Road	Upper Boones Ferry	72nd	2" Pavement Overlay	\$310,000	\$310,000		Y	N/A	Y - 1
Tigard	72nd Avenue	Upper Boones Ferry	Landmark	2" Pavement Overlay	\$335,000	\$335,000				Y - 1
Tigard	72nd Avenue	Landmark	Fir	2" Pavement Overlay	\$155,000	\$155,000				Y - 1
Tigard	Bonita Road	I-5 Bridge	Railroad	2" Pavement Overlay	\$130,000	\$130,000				Y - 1
Tigard	Citywide 'Small Fix' Congestion Solutions			Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$100,000	\$100,000		N	N/A	Y - 2
Tigard	McDonald Street	97th Ave	Hwy 99W	2" Pavement Overlay	\$270,000	\$270,000				Y - 1
Tigard	Pfaffle Street	84th Ave	78th Ave	2" Pavement Overlay	\$210,000	\$210,000				Y - 1
Tigard	Sequoia Parkway	Upper Boones Ferry	Cardinal Dr	2" Pavement Overlay	\$240,000	\$240,000				Y - 1

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Washington County	ashington County and Cities cont.									
Tigard	Citywide 'Small Fix' Congestion Solutions			Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$140,000	\$140,000		N	N/A	Y - 2
Tigard	Bonita	RR	76th	2" Pavement Overlay	\$55,000	\$55,000				Y -1
Tigard	72nd	Hwy. 217 NB	Beveland	2" Pavement Overlay	\$82,000	\$82,000				Y - 1
Tualatin	Teton AvenueCR RR Xing			Install 4 Quad RR Xing gates	\$681,778	\$681,778				N
Tualatin	95th Ave. RR Xing			Install raised median and associated improvements	\$50,000	\$50,000		Y	No	N
Wash. Co.	Group A Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$750,000	\$750,000		Υ	No	N
Wash. Co.	Group E Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$850,000	\$850,000		Υ	No	Υ
Wash. Co.	143rd Ave. Pedestrian Path	Windermere Apts	W. Union Rd.	Construct 2400' of new asphalt path to improve pedestrian access to two schools.	\$150,000	\$150,000		Y	No	Y
Wash. Co.	Interior Illuminated Sign Replace.	n/a	n/a	Replaces existing illuminated signs with diamond grade sheeting, which subsequently reduces electrical costs.	\$100,000	\$100,000		Y	No	Υ
Wash. Co.	Walker Road Pedestrian Bridge	173rd Ave	Cambray St.	Install pedestrian bridge across creek to connect existing sidewalks on both sides of project.	\$100,000	\$100,000		Υ	No	Υ
Wash. Co.	School Zone Flasher Units	n/a	n/a	Install solar powered School Zone Flasher Units at various locations. Improves efficiency and safety.	\$150,000	\$150,000		Υ	No	Υ
Wash. Co.	Flashing Yellow Arrows	n/a	n/a	Install new signal head and hardware at various intersections to improve efficiency and reduce traffic delays.	\$500,000	\$500,000		Y	No	Υ
Wash. Co.	Traffic Signal Retiming	n/a	n/a	Retain consultants to evaluate signal timing, and make necessary changes to improve traffic flow, improve congestion, and air quality.	\$600,000	\$600,000		N	No	Υ
Wash. Co.	ITS Project - Cornell Road	Main St.	Corn Pass Rd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$1,550,000	\$1,550,000		N	No	Y
Wash. Co.	ITS Project - 185th Avenue	Baseline Rd.	Hwy. 26	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$870,000	\$870,000		N	No	Y
Wash. Co.	ITS Project - Scholl's Ferry Rd	Murray Blvd	Hall Blvd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$881,000	\$881,000		N	No	Y
				Subtotal:		\$21,993,862				

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Additional Project I	Requests									
Gladstone	East Arlington Street			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" near curbs. Right-of-way and easements are not needed; work would be done entirely within existing 36" wide curb to curb improvements. This project is the city's number three priority for possible funding. The project can be bid within 30 days of project selection.	\$177,854	\$177,854		Υ		Y
Gladstone	East Dartmouth Street			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 14' from existing curbs. Paving 28' wide is proposed within the 56' curb-to-curb street width. Right-of-way and easements are not needed; work would be done entirely within existing curb to curb improvements. This project is the city's number two priority for possible funding. Project can be bid in 30 days of project selection.	\$141,137	\$141,137		Υ		Y
Gladstone	Valley Views/Los Verdes			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 6" from curbs along the roadway. Right-ofway and easements are not needed; work would be done entirely within existing 36' wide curb to curb improvements. This project is the city's number one priority for possible funding. Project can be bid in 30 days of project selection.	\$167,544	\$167,544		Y		Y
Happy Valley	Street Maintenance and Reconstructions				\$3,542,000	\$3,542,000		Y		Y
Happy Valley	SE 147th Avenue Storm System			The project includes providing catch basins and storm piping to mitigate storm water runoff that is eroding the street section and flooding neighborhood properties	\$531,000	\$531,000		Y		Y
Happy Valley	Super Block Sidewalk and Bike Lane Improvements			Design and construct pedestrian improvements and a bike lane around Super Block roads, which encircle an elementary school, middle school, and city park	\$5,131,000	\$5,131,000		N		Y
Happy Valley	SE 122nd/129th Avenue Improvements			Improve safety and pedestrian and bike access	\$14,230,000	\$14,230,000		Y		Y
Happy Valley	SE 162nd Avenue Improvements			Design a new three lane collector roadway with traffic signals and a bridge over rock creek	\$8,000,000	\$8,000,000		Y		Υ
Happy Valley	SE 172nd Avenue Improvements			Design a new five lane collector roadway with traffic signals and a bridge	\$15,000,000	\$15,000,000		N		Υ
Lake Oswego	Westlake Dr.	Melrose	Kruse Way	The project will dig out, grind and replace 2" of the entire asphalt surface	\$424,000	\$424,000	\$0	у	n/a	N
Lake Oswego	Misc. Signal Upgrades	various		improve signal timing at six intersections to reduce delay	\$98,000	\$98,000	\$0	у	no	N
Port	Graham Rd Reconstruction			Overlay and reconstruct	\$2,468,000	\$2,468,000		Ready for bid by June 2010		Υ
Port	South Frontage Rd			Construct a third through lane the length of eastbound frontage road and provide dual left turn lanes at the east undercrossing	\$4,474,008	\$4,474,008		bid by August 2009		Υ
Port	Troutdale Interchange/North Frontage Rd/Graham Rd			Signal modification, construction of a short lane on the north leg of the intersection and an auxiliary lane on westbound North Frontage rd.	\$1,529,000	\$1,529,000		bid by August 2009		Y
Port	Graham Rd/Sundial Intersection			Construct a traffic signal at the intersection of Graham and Sundial Road and add a westbound turn lane	\$631,000	\$631,000		Bid by June-July 2010		Y
SMART	Wilsonville SMART Fleet Services Facility			Design and construct a state of the art fleet facility/ operations center. This 20,000 square foot facility will incorporate cost-effective, environmentally sensitive site work and construction, with "Green"/LEED-certification for the facility as the ultimate goal. This facility will be the operating center for SMART dispatch, training, field operations and fleet maintenance. This infrastructure is vital for SMART to meet current and future service demand. The facility will provide adequate access and accommodate parking for SMART's growing fleet of buses as well as a bus wash facility and an energy efficient fueling system.	\$11,800,000	\$9,550,000	\$2,250,000		2035 RTP #11112	Y

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Additional Project Requests cont.										
SMART	SMART Bus Replacements			Replace ten heavy duty buses that are between 10 and 20 years old and still in operation. These inefficient coaches will be replaced with energy efficient modern coaches	\$3,500,000	\$3,500,000			2035 RTP #11109	Y
SMART	SMART Offices/Administration Facility (Customer Service Center)			The SMART Offices/Customer Service Center project is a 5000 square foot facility, designed to incorporate energy saving technologies and transit amenities. Smart's customer service center will be on the ground floor and Smart offices above. This center will allow SMART to provide on-site personnel to enhance security for the transit center and park and ride.	\$2,900,000	\$2,900,000				Y
West Linn	Rosemont Rd	1271 Rosemount Rd	Santa Anita Dr	Install 18,270 ft2 of ac overlay, and spot repair 1,737ft2 of the base.	\$35,000	\$35,000		ready by 3rd quarter 2009		Y
West Linn	Dollar St	Brandon Place	WFD east	2.5 in overlay (2'+fabric)	\$275,000	\$275,000				Y
West Linn	12th St	#1201 12th ST.	Tualatin Ave.	Reconstruct (Part)	\$38,500	\$38,500				Y
West Linn	12th St	Tualatin Ave.	WFD	Reconstruct	\$305,000	\$305,000				Y
Wilsonville	Brown Road Improvements	Wilsonville Road	Evergreen Avenue	Widening and improving 0.36 miles of roadway with associated utility work.	\$1,000,000	\$400,000	\$600,000	Y	No	Y
Wilsonville	Grahams Ferry Road Improvements	Barber Street	LEC Property	Improve road and add bike lane with water, sewer and storm work	\$300,000	\$170,000	\$130,000	Y	No	Y



**TO:** Robin McArthur, Chair, TPAC and Members, Alternates and interested parties

FROM: Mark Turpel, Principal Transportation Planner

**DATE:** February 19, 2009

**SUBJECT:** Economic Stimulus Package – Transportation Projects and Air Quality

The federal government has approved the American Recovery and Reinvestment Act which includes funding for transportation projects. The Metro region has prepared a list of projects to be funded by this Act and has proposed to amend the 2008-2011 MTIP.

Attached is a list of all of the projects to be included in the first phase of this program. Staff has indicated an air quality assessment of each of these projects as noted in the last field at the left in the matrix.

Ordinarily, staff does not bring exempt projects to TPAC. However, in light of the extensive list of projects and to be able to demonstrate that for each project that an air quality assessment was done, this material is provided as background information to TPAC.

We would be happy to answer any questions about this air quality assessment.

Thank you.

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	In RTP? * (RTP #, No or N/A)	Air Quality Conformity Status (Exempt, Reg Significant)
City of Portland								
Portland	SE Madison			Preservation of arterial, transit, bicycle - grind and pave		\$1,050,000	N/A	exempt
Portland	SE 39th Avenue			Preservation of arterial, transit, bicycle - grind and pave		\$2,050,000	N/A	exempt
Portland	SE Hawthorne			Preservation of arterial, transit, bicycle - grind and pave		\$1,250,000	N/A	exempt
Portland	North Going Rail Overcrossing			Bridging funding gap to ensure completion	\$4,300,000	\$500,000	1109	Already conformed in TIP
Portland	Leadbetter Overcrossing			Adding rail crossing improvements at grade crossing	\$11,500,000	\$500,000	4087	Already conformed in TIP
Portland/TMet	SW Columbia & SW Jefferson Bus Pads			Concrete Bus Pads on SW Columbia and SW Jefferson		\$500,000	N/A	exempt
Portland/TMet	SW 3rd & SW 4th Base Repair			Base repair and paving on areas of 3rd and 4th damaged by bus loads.  Preservation of arterial, transit, bicycle.		\$500,000	N/A	exempt
Portland/TMet	Lake Oswego Shoreline Trestles			Trestle repair to maintain level of service		\$200,000	N/A	exempt
Portland/TMet	SW Yamhill & SW Morrison brick intersections			Replacement of brick intersections on SW Yamhill & SW Morrison		\$1,000,000	N/A	exempt
Portland	NW 23rd Avenue			Bridging Funding gap		\$432,000	1209	Already conformed in TIP
Portland	So Auditorium Lighting Phase I			Replace foundation, poles, and lighting fixtures to a maintainable status.  Install conduit and power wire to a standard depth.	\$3,900,000	\$3,900,000	N/A	exempt
Portland	Bicycle Blvd			Striping and Signage	\$1,000,000	\$1,000,000		exempt
Portland	Paving SW Capitol Hgwy			Preservation of arterial, bicycle - grind and pave	\$2,000,000	\$2,000,000	N/A	exempt
Portland	Paving NW Front Avenue			Preservation of arterial, freight, transit, bicycle - grind and pave	\$2,500,000	\$2,500,000	N/A	exempt
Portland	Eastside Streetcar signals and ramps			2 signal upgrades, ADA curb ramps at intersections for Eastside Streetcar		\$1,486,832		exempt +0290
Portland	82nd Avenue and Columbia			Bridging Funding gap		\$1,000,000	4022	Already conformed in TIP
Portland	Springwater Trail Repaving	UPRR Bridge	E City border	Repave Springwater Trail from Sellwood to City border		\$1,800,000		exempt
				Subtotal:		\$21,668,832		
				Sub-regional Target:		\$14,691,106		
	h County and Cities  Halsey St, Stark St, &			Install sidewalks in 4 locations: NE Halsey St: 238th-244th, Stark St: 257th		ı	T	
Multnomah County	Troutdale Rd Sidewalks Project	Multiple	Locations	Troutdale Rd., Troutdale Rd: S.E.18th-19th St. (eastside) and Stark St. to  Beaver Creek (eastside).	\$1,725,000	\$1,725,000		exempt
				Subtotal:		\$1,725,000		
				Sub-regional Target:		\$3,365,871		
Clackamas County and								
Clackamas County	Sunnyside Road	82nd Ave	I-205	Paving and Replacement of Traffic Signal Video Detection System	\$1,802,000	\$1,170,000	n/a	exempt
Lake Oswego	Royce	Bryant	Westview	The project will dig out, grind and replace 2" of the entire asphalt surface	\$428,000	\$428,000	no	exempt
Lake Oswego	McNary	Kerr	Kerr	The project will dig out, grind and replace 2" of the entire asphalt surface	\$416,000	\$416,000	no	exempt
Lake Oswego	Willamette Shore Trolley	LO trestle		Trestle repair on Lake Oswego Trolley line	\$100,000	\$100,000	no	exempt
City of Milwaukie	Linwood Ave Re-surfacing	Monroe St.	Railroad Ave.	2" grind & overlay	\$565,000	\$565,000	n/a	exempt
City of Milwaukie	River Road Re-surfacing	McLoughlin	City Limit	2" grind & overlay	\$140,000	\$140,000	n/a	exempt
City of Milwaukie	Jackson Street sidewalks	Main Street	21st Avenue	Reconstruction of sidewalk/streetscape including street trees, utility undergrounding, street furniture, bulbouts, etc.	\$640,000	\$600,000	no	exempt

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	In RTP?* (RTP #, No or N/A)	Air Quality Conformity Status (Exempt, Reg Significant)
Oregon City	Molalla Avenue/Warner Milne/Beavercreek intersection	Warner Milne	Beavercreek	realign traffic intersection, update signal timing, add sidewalks	\$2,956,000	\$1,170,000	n	exempt
City of West Linn	Santa Anita Dr. (North of Horton, per plan)	Horton Rd.	Hidden Springs Rd.	Reconstruction with Cement Treated Base and 6" of AC in 3 lifts	\$475,000	\$475,000	n/a	exempt
City of West Linn	Santa Anita Dr. (South of Horton)	Horton Rd.	410' South to joint separation	Reconstruction and overlay	\$50,500	\$50,500	n/a	exempt
City of West Linn	Hidden Springs Rd.	Cottonwood Ct.	Hwy 43	Reconstruction with Cement Treated Base and 6" of AC in 3 lifts	\$420,000	\$420,000	n/a	exempt
City of West Linn	Hidden Springs Rd.	Bluegrass Wy.	Cottonwood Ct.	Grind 2" and overlay with 2.5" AC	\$93,000	\$93,000	n/a	exempt
City of West Linn	Suncrest Dr.	Hidden Springs Rd.	Carriage Wy.	Grind and 2" AC overlay with fabric	\$134,000	\$124,000	n/a	exempt
Wilsonville	Barber Street Improvements	Boones Ferry Road	Boberg Road	Street preservation and upgrade with associated utility work.	\$1,000,000	\$400,000	No	exempt
				Subtotal:		\$6,151,500		
Washington				Sub-regional Target:		\$7,151,051		

## Washington County and

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Beaverton	Laurelwood Ave Sidewalk	Beaverton- Hillsdale Hwy	Birchwood Rd	Install sidewalk to provide safe pedestrian access to transit route and improve the livability of the neighborhood. Construct sidewalks and ADA ramps	\$343,000	\$343,000	No	exempt
Beaverton	Birchwood Rd Sidewalk	87th Ave	Laurelwood Ave	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$170,000	\$170,000	No	exempt
Beaverton	Farmington Rd Adaptive Signal Control Installation	Hocken Ave	Griffith Dr	Upgrade existing traffic signal control software to SCATS adaptive signal control system at 7 signalized intersections. The existing Model 170 signal controllers will be upgraded to 2070L signal controllers. In addition to these upgrades, the signalized intersections will be connected to the regional centralized signal control system for real-time remote monitoring and signal timing adjustments capabilities.	\$804,000	\$804,000	10642	exempt/can't be modeled
Beaverton	Hall Blvd Overlay	Hart Rd	Ridgecrest Dr	Overlay	\$785,000	\$785,000	No	exempt
Beaverton	Cedar Hills Blvd Adaptive Signal Control Installation	Millikan Way	Walker Rd	update existing traffic control software to SCATs adaptive signal control system at 6 signalized intersections. The existing model 170 signal controllers will be upgraded to 2070L signal controllers. The signalized intersections will also be connected to the regional centralized signal control system for real time remote monitoring and signal timing adjustment capabilities.	\$906,000	\$906,000	10642	exempt/can't be modeled
Beaverton	Cedar Hills Blvd Signal Re- timing	Millikan Way	Walker Rd	collect new traffic volumes and update the signal timing along the corridor	\$56,000	\$56,000	10642	exempt + 0290
Beaverton	87th Ave Sidewalk	Birchwood Rd	Canyon Rd	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$306,000	\$306,000	No	exempt
Cornelius	Hwy. 8/Adair Blvd.	10th Ave	19th Ave	Utility connections, sidewalk repair and street furniture	\$289,502	\$289,502		exempt
Cornelius	10th Ave.	Alpine	Holladay	Construct sidewalks, illumination, bikeways, curb & gutter and on-street parking	\$2,354,000	\$2,354,000		exempt
Forest Grove	Town Center Ped Improvements			curb, sidewalks, lighting and multi-use amenities	\$500,000	\$500,000	Y	exempt
Forest Grove	Town Center Ped Improvements			curb, sidewalks, lighting and multi-use amenities	\$1,100,000	\$1,100,000	Υ	exempt
Hillsboro	Intermodal Transit Facility	Baseline	7th & 8th	Construct parking structure with shared park & ride and transit oriented development	\$14,500,000	\$2,110,706	N/A	

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	In RTP? * (RTP #, No or N/A)	Air Quality Conformity Status (Exempt, Reg Significant)
Hillsboro	Various Street Overlays	N/A	N/A		\$2,110,706	\$2,110,706	N/A	exempt
Sherwood	Sherwood Boulevard Overlay	3rd St	12th St	Grind & Overlay 2,740 LF of Collector status road	\$278,000	\$278,000	N/A	exempt
Sherwood	Pine Street Overlay	1st St	3rd St	Grind & Overlay 837 LF of Collector status road	\$86,000	\$86,000	N/A	exempt
Sherwood	1st Street Rehabilitation	Pine St	Ash St	Remove, CTB & Pave 490 LF of Collector status road	\$52,000	\$52,000	N/A	exempt
Sherwood	Lincoln Street Overlay	Oregon St	Division St	Grind & Overlay 2,054 LF of Collector status road	\$95,000	\$95,000	No	exempt
Sherwood	Pine Street Overlay	11		Paving	\$1,850,000	\$388,170		exempt
Tigard	Durham Road	Upper Boones Ferry	72nd	2" Pavement Overlay	\$310,000	\$310,000	N/A	exempt
Tigard	72nd Avenue	Upper Boones Ferry	Landmark	2" Pavement Overlay	\$335,000	\$335,000		exempt
Tigard	72nd Avenue	Landmark	Fir	2" Pavement Overlay	\$155,000	\$155,000		exempt
Tigard	Bonita Road	I-5 Bridge	Railroad	2" Pavement Overlay	\$130,000	\$130,000		exempt
Tigard	Citywide 'Small Fix' Congestion Solutions			Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$100,000	\$100,000	N/A	exempt
Tigard	McDonald Street	97th Ave	Hwy 99W	2" Pavement Overlay	\$270,000	\$270,000		exempt
Tigard	Pfaffle Street	84th Ave	78th Ave	2" Pavement Overlay	\$210,000	\$210,000		exempt
Tigard	Sequoia Parkway	Upper Boones Ferry	Cardinal Dr	2" Pavement Overlay	\$240,000	\$240,000		exempt
Tigard	Citywide 'Small Fix' Congestion Solutions			Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$140,000	\$140,000	N/A	exempt
Tigard	Bonita	RR	76th	2" Pavement Overlay	\$55,000	\$55,000		exempt
Tigard	72nd	Hwy. 217 NB	Beveland	2" Pavement Overlay	\$82,000	\$82,000		exempt
Tualatin	Teton AvenueCR RR Xing			Install 4 Quad RR Xing gates	\$681,778	\$681,778		exempt
Tualatin	95th Ave. RR Xing			Install raised median and associated improvements	\$50,000	\$50,000	No	exempt
Wash. Co.	Group A Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$750,000	\$750,000	No	exempt
Wash. Co.	Group E Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$850,000	\$850,000	No	exempt
Wash. Co.	143rd Ave. Pedestrian Path	Windermer e Apts	W. Union Rd.	Construct 2400' of new asphalt path to improve pedestrian access to two schools.	\$150,000	\$150,000	No	exempt
Wash. Co.	Interior Illuminated Sign Replace.	n/a	n/a	Replaces existing illuminated signs with diamond grade sheeting, which subsequently reduces electrical costs.	\$100,000	\$100,000	No	exempt
Wash. Co.	Walker Road Pedestrian Bridge	173rd Ave	Cambray St.	Install pedestrian bridge across creek to connect existing sidewalks on both sides of project.	\$100,000	\$100,000	No	exempt
Wash. Co.	School Zone Flasher Units	n/a	n/a	Install solar powered School Zone Flasher Units at various locations.  Improves efficiency and safety.	\$150,000	\$150,000	No	exempt
Wash. Co.	Flashing Yellow Arrows	n/a	n/a	Install new signal head and hardware at various intersections to improve efficiency and reduce traffic delays.	\$500,000	\$500,000	No	exempt + 0290
Wash. Co.	Traffic Signal Retiming	n/a	n/a	Retain consultants to evaluate signal timing, and make necessary changes to improve traffic flow, improve congestion, and air quality.	\$600,000	\$600,000	No	exempt + 0290
Wash. Co.	ITS Project - Cornell Road	Main St.	Corn Pass Rd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$1,550,000	\$1,550,000	No	exempt + 0290
Wash. Co.	ITS Project - 185th Avenue	Baseline Rd.	Hwy. 26	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$870,000	\$870,000	No	exempt + 0290
Wash. Co.	ITS Project - Scholl's Ferry Rd	Murray Blvd	Hall Blvd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$881,000	\$881,000	No	exempt + 0290
				Subtotal:		\$21,993,862		
				Sub-regional Target:		\$12,791,973		

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	In RTP? * (RTP #, No or N/A)	Air Quality Conformity Status (Exempt, Reg Significant)
Additional Project Requests								
Gladstone	East Arlington Street			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" near curbs. Right-of-way and easements are not needed; work would be done entirely within existing 36" wide curb to curb improvements. This project is the city's number three priority for possible funding. The project can be bid within 30 days of project selection.	\$177,854	\$177,854		exempt
Gladstone	East Dartmouth Street			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 14' from existing curbs. Paving 28' wide is proposed within the 56' curb-to-curb street width. Right-of-way and easements are not needed; work would be done entirely within existing curb to curb improvements. This project is the city's number two priority for possible funding. Project can be bid in 30 days of project selection.	\$141,137	\$141,137		exempt
Gladstone	Valley Views/Los Verdes			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 6" from curbs along the roadway. Right-of-way and easements are not needed; work would be done entirely within existing 36' wide curb to curb improvements. This project is the city's number one priority for possible funding. Project can be bid in 30 days of project selection.	\$167,544	\$167,544		exempt
Happy Valley	SE 147th Avenue Storm System			The project includes providing catch basins and storm piping to mitigate storm water runoff that is eroding the street section and flooding neighborhood properties	\$531,000	\$531,000		exempt
Happy Valley	Super Block Sidewalk and Bike Lane Improvements			Design and construct pedestrian improvements and a bike lane around Super Block roads, which encircle an elementary school, middle school, and city park	\$5,131,000	\$5,131,000		exempt
Happy Valley	SE 122nd/129th Avenue Improvements			Improve safety and pedestrian and bike access	\$14,230,000	\$14,230,000		exempt
Lake Oswego	Westlake Dr.	Melrose	Kruse Way	The project will dig out, grind and replace 2" of the entire asphalt surface	\$424,000	\$424,000	n/a	exempt
Lake Oswego	Misc. Signal Upgrades	various		improve signal timing at six intersections to reduce delay	\$98,000	\$98,000	no	exempt
Port	Graham Rd Reconstruction			Overlay and reconstruct	\$2,467,773	\$2,467,773		exempt
Port	Graham Rd/Sundial Intersection			Construct a traffic signal at the intersection of Graham and Sundial Road and add a westbound turn lane	\$629,226	\$629,226		UNKNOWN?
West Linn	Rosemont Rd	1271 Rosemount Rd	Santa Anita Dr	Install 18,270 ft2 of ac overlay, and spot repair 1,737ft2 of the base.	\$35,000	\$35,000		exempt
West Linn	Dollar St	Brandon Place	WFD east	2.5 in overlay (2'+fabric)	\$275,000	\$275,000		exempt
West Linn	12th St	#1201 12th ST.	Tualatin Ave.	Reconstruct (Part)	\$38,500	\$38,500		exempt
West Linn	12th St	Tualatin Ave.	WFD	Reconstruct	\$305,000	\$305,000		exempt
Wilsonville	Grahams Ferry Road Improvements	Barber Street	LEC Property	Improve road and add bike lane with water, sewer and storm work	\$300,000	\$170,000	No	exempt

Project Name	Brief Description	Project Cost Estimate	In RTP? * (RTP #, No or N/A)	Proposed Findings of Regional Air Quality Conformity Status (Exempt, Exempt from Reg Emissions Analysis, Not Reg Significant, Already conformed, Regionally Significant)
TriMet				
Banfield light rail station illumination improvements	Upgrade existing lighting at eastside LRT stations from Hollywood to Cleveland stations.	\$4,000,000	N/A	exempt
Bike Parking Improvements	Replacement of existing deteriorating bike lockers, and construction of up to six bike stations (secure, covered, high capacity bike parking facilities).	\$3,000,000	N/A	exempt
Bus Street Maintenance Projects	Street Repair on SW 3 <sup>rd</sup> and 4 <sup>th</sup> Avenues, and the construction of concrete paving at bus stops on Columbia and Jefferson.	\$1,000,000	N/A	exempt
CCTV Camera's @ Clackamas TC Garage Bus Layover area	Provide four cameras within bus layover area on the first floor of the Clackamas Town Center Park and Ride Garage.	(City has committed to seek an add. \$1.000.000)	N/A	exempt
Cleveland Station tail track	Upgrades two-train tail system to a single-track system allowing three trains into the terminus simultaneously. This is a preferred terminus configuration and is currently found at Expo, Government Center and CTC.	\$50,000	N/A	exempt
Cross-mall transit tracker	Install Transit Tracker at 12 bus stops in downtown Portland not on the Mall.	\$2,000,000	N/A	exempt
Elmonica Maint. Facility Roof Replacement	Existing roof was constructed as part Westside Project. New and persistent leaks require constant maintenance.	\$250,000	N/A	exempt
Fencing along the I-205 LRT alignment	Provide additional fencing to help prevent pedestrian intrusion into the green line R.O.W.	\$750,000	N/A	exempt
Gresham Central EB platform Access Control Project	Implement access control on the Gresham Central eastbound platform.	\$1,544,000	N/A	exempt
Gresham Central WB platform Access Control and Illumination Project	Upgrade existing lighting, and signage at the 82 <sup>nd</sup> Ave. and Gresham Central Stations. Install fencing to provide access control on the westbound Gresham Central platform.	\$160,000	N/A	exempt
Ice Cap Installation on the I-205 light rail Catenary System	Exposed to notoriously hostile "East County" weather along its entire length, OCS ice caps will facilitate Green Line operation when it's most needed.	\$580,000	N/A	exempt
Intersection repairs along Morrison/Yamhill Streets	Reconstruction of both the sub-grade and sections of mortar set pavers at the following intersections: SW Morrison & SW Yamhill @ SW 2nd.SW 3rd. SW 4th, SW 5th, SW Broadway, SW 8th, SW 9th, SW 10th, and SW 11th.	\$310,000	N/A	exempt
IT Server Room climate control system	Reconfiguration of the server room in to Hot and Cold isles saving electricity on air conditioning costs.	\$1,000,000	N/A	exempt
Lift BDS system replacement	The LIFT BDS replacement project replaces on-board mobile data terminals in all LIFT (para-transit) vehicles, and associated central equipment. The new Para-transit specific Mobile Data Terminals will allow for electronic manifests and turn by turn navigation, which allows for dynamic scheduling.	(City has committed to seek an add. \$1,000,000)	N/A	exempt
Lift Vehicles	TM to purchase Lift Vehicles.	\$50,000	N/A	exempt
Lighting along the Multi-use path adjacent to the I-205 LRT	The project would extend the lighting along ODOT's Multi-use path south from the Woodstock LRT station to Monterey Ave within the CTC station area.	\$2,500,000	N/A	exempt
Merlo Fuel/Wash & Lift Buildings	Construction of replacement bus fueling and wash facility, and construction of a LIFT operations building.	\$7,993,000	N/A	exempt
Milwaukie Park-and-Ride	The Milwaukie Park & Ride currently planned consists of 315 parking spaces on nearly 4 acres.	\$554,000		

Project Name	Brief Description	Project Cost Estimate		Proposed Findings of Regional Air Quality Conformity Status (Exempt, Exempt from Reg Emissions Analysis, Not Reg Significant, Already conformed, Regionally Significant)
Pedestrian Crossing Improvements	Upgrade street and rail crossings at various LRT stations to meet best practice standards with respect to general safety, ADA, and pedestrian efficiency.	(ODOT seeking an add. \$2m)	N/A	exempt
Portland Mall Customer Amenities	transit mall shelter at SW 5 <sup>th</sup> and SW Salmon. Structures will be leased to entrepreneurs as	\$13,500,000	N/A	exempt
Powell Facilities Maintenance building	Redevelopment of Blue Flame parcel adjacent to Powell Garage. Project has three elements and may be phased to meet stimulus timeline: construction of Facilities Management Building,	\$3,500,000	N/A	exempt
Powered Switches (3) at Beaverton pocket track	construction of employee parking, and bringing the entire Powell facility up to COP landscaping Allows eastbound trains to be turned back westbound to maintain Washington Co. service during tunnel incident. Also allows better train staging for special events.	\$500,000	N/A	exempt
Powered switch (1) at SW 11th Ave. Terminal - track 3	Allow quick removal of broken down trains from busy mainline. Provides efficient train staging for special events. Project includes needed signal work.	\$240,000	N/A	exempt
Power Switch at Fairplex	Power switch to allow staging trains for special events and to remove broken down trains from busy mainline operations.	\$1,200,000	N/A	exempt
Powered switches at Hollywood Pocket Track		\$3,000,000	N/A	exempt
Powered Switches (4) at Lloyd Center	Extend Pocket Track and power 6 switches to allow staging trains for special events flexibility to turn back service (esp. in winter if Gateway is iced over), remove broken down trains from busy mainline	\$750,000	N/A	exempt
Preventative Maintenance	operations, and stage gap trains.  Convert existing manual switches to powered switches to allow quick conversion to single-track operations in case of accidents or track/OCS maintenance. Project includes required signal work to	\$1,467,500	N/A	exempt
Rail Track and Structure Repairs	allow remote switching from Central Control.  Preventive maintenance includes activities such as maintenance of bus and rail vehicles including overhauls and rebuilds, and maintenance of buildings, track, elevators, catenary,	\$1,467,500	N/A	exempt
Repainting eastside light rail stations	substations, communications, and signals. Purchase and install 10 pairs of Expansion Joints and perform track lining to remove speed restrictions.	\$4,000,000	N/A	exempt
Replacement buses	Ad hoc repainting eastside stations has been deferred for both budgetary and logistical reasons.  Repainting stations under a single coordinated effort could ease logistical issues and provide some	\$13,300,000	N/A	exempt
Replacement of 4 hoists at the Center Bus Maintenance Facility	economies of scale. TM buses are older than the FTA standard for replacement.	\$2,000,000	N/A	exempt
Replacement of 1 hoists at the Powell Maintenance Facility	Complete removal and replacement of existing lifts, hydraulic lines and all control equipment. This project has been budgeted for and deferred multiple times.	\$270,000	N/A	exempt
Replacement of broken Concrete at the Center Street Bus Facility	Complete removal and replacement of existing lift, hydraulic lines and all control equipment. This project has been budgeted for and deferred multiple times.	\$42,000,000	N/A	exempt
Replacement of broken Concrete at the Merlo Bus Yard	Bus parking and travel lanes are showing excessive wear and tear. Project includes removal of existing concrete, restructuring of sub-grade as necessary and placement of new concrete slabs.	\$220,000	N/A	exempt
South Mall light rail terminus alternative energy project	Bus parking and travel lanes are showing excessive wear and tear. Project includes removal of existing concrete, restructuring of sub-grade as necessary and placement of new concrete slabs	\$88,000	N/A	exempt
South Transit Police Precinct at Clackamas TC Garage	Construct frame to support Solar (photo-voltaic) and wind power project, including 22 vertical axis wind turbines to be mounted on existing catenary poles in southwest Portland adjacent to the PSU	\$220,000	N/A	exempt
Storefront Improvements Burnside/Skidmore	campus. Apply for DOE grant for panel costs.  Tenant improvements to retail space of 1 <sup>st</sup> floor CTC garage, approximately 2,000 ft <sup>2</sup> @ \$300/ft <sup>2</sup> for transit police substation. Project includes office space, staff locker room, and two plumbed holding	\$360,000	N/A	exempt

Project Name	Brief Description	Project Cost Estimate	In RTP? * (RTP #, No or N/A)	Proposed Findings of Regional Air Quality Conformity Status (Exempt, Exempt from Reg Emissions Analysis, Not Reg Significant, Already conformed, Regionally Significant)
Systems equipment spare parts	Create a 'storefront' retail/commercial space with storage along the westbound platform. Project would enhance safety and security at the Skidmore Fountain station. Project supports partnership with PDC to provide a new home for Saturday Market.	\$1,200,000	N/A	exempt
at 5 stations	Provide systems spare parts that are unique to the Green Line.	(Add. \$1,700,000 being sought by TM from State)	N/A	exempt
Tigard Transit Center – storm- piping repair	Replace existing Detectable Pavers (Ryowa's) at 5 eastside platforms on which the existing pavers are failing.	\$600,000	N/A	exempt
Track Switch heaters	Existing stormwater pipes have extensive root intrusion, causing leaks and a need for annual root clearing. Project removes existing cracked concrete pipes and replaces them with root resistant pipes.	\$160,000	N/A	exempt
Transit Tracker installation at	Retrofit critical track switches with switch heaters.	\$425,000	N/A	exempt
I-205 MAX stations	The project provides electronic information display signs at I-205 stations. Signs provide real-time transit arrival and departure information for passengers at each rail platform. Also, signs provide public service and safety advisory information for passengers.	\$45,000	N/A	exempt
Tunnel radio system replacement	Upgrade of tunnel radio system along entire 3-mile length of West Hills Tunnel to permit use of newer 700 MHz radios, in addition to current 800 MHz radios. City of Portland and Washington County fire and life-safety personnel will be using upgraded radios in the near future and will require	\$75,000	N/A	exempt
Type I LRV refurbishment (13 LRVs)	Periodic major overhaul of Type I LRV fleet is required to ensure long-term operation and reliability.  Refurbishment of 13 of the 26 type I vehicles has been completed.	\$1,200,000	N/A	exempt
Underground Storage tank replacement Center Garage	There are 6 single-walled tanks that are to be removed and replaced with 4 double-walled tanks with improved leak detection. The tanks aren't known to be leaking but are reaching the end of their useful life and are due for replacement.	\$125,000	N/A	exempt
Wash equipment replacement at Center garage	Replacement of hydraulically driven wash rack at Center Street with electric drives. Wear and tear on existing hydraulic lines is excessive and line breaks are common. Budgeted for 2003, but deferred.	\$1,100,000	N/A	exempt
Willamette Shore Line trestle repairs	Inspect and repair Shore Line trestles as needed to carry current operating loads and increased loads resulting from recently acquired vintage trolleys (donated by TriMet). Increased loading scheduled to begin Summer 2009	\$2,600,000	N/A	exempt
Willow Creek Pocket Track	Construct new pocket track at Willow Creek in order to increase passenger capacity between Beaverton and SW 185 <sup>th</sup> .	\$435,000	N/A	exempt
SMART				
Wilsonville SMART Fleet Services Facility	Design and construct a state of the art fleet facility/ operations center. This 20,000 square foot facility will incorporate cost-effective, environmentally sensitive site work and construction, with "Green"/LEED-certification for the facility as the ultimate goal. This facility will be the operating center for SMART dispatch, training, field operations and fleet maintenance. This infrastructure is vital for SMART to meet current and future service demand. The facility will provide adequate access and accommodate parking for SMART's growing fleet of buses as well as a bus wash facility	\$9,500,000	2035 RTP #11112	exempt
SMART Bus Replacements	Replace ten heavy duty buses that are between 10 and 20 years old and still in operation. These inefficient coaches will be replaced with energy efficient modern coaches	\$3,500,000	2035 RTP #11109	exempt
SMART Offices/Administration Facility (Customer Service Center)	The SMART Offices/Customer Service Center project is a 5000 square foot facility, designed to incorporate energy saving technologies and transit amenities. Smart's customer service center will be on the ground floor and Smart offices above. This center will allow SMART to provide on-site personnel to enhance security for the transit center and park and ride.	\$2,900,000		exempt

Materials following this page were distributed at the meeting.

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



Date: February 27, 2009

To: Joint Policy Advisory Committee on Transportation and Interested Parties

From: Rod Park, Metro Councilor

Regional Freight and Goods Movement Task Force Chair

Re: Integrating Regional Freight and Goods Movement Action Plan into 2035 RTP Update

### **Purpose**

In late-2009, a number of coordinated growth management decisions will be made through the *Making the Greatest Place* initiative. This includes designation of urban and rural reserves, adoption of the urban growth report and approval of the 2035 Regional Transportation Plan (RTP) that will establish the region's transportation investment priorities.

To prepare JPACT for upcoming policy discussions and decision-making, staff is bringing forth the needs assessment work being conducted for various RTP elements over the next several months. In February, staff brought forward preliminary results of the *Regional Transportation System Management Operations (TSMO) Plan* needs assessment. On March 5, JPACT will receive a briefing on *Regional Freight and Goods Movement Action Plan*. The *High Capacity Transit Plan*, community building and mobility corridors needs assessment will be brought forward in April. In May and June, JPACT, MPAC and the Metro Council will be asked to provide direction that will be used to identify investment priorities and a long-term strategy to fund priority investments that support the 2040 Growth Concept and meet other goals of the RTP.

The purpose of this memo is to highlight recommendations from the Regional Freight and Goods Movement Task Force and describe how the Regional Freight and Goods Movement Action Plan has been and will be integrated into the RTP.

### **Background**

In coordination with the 2035 RTP update, Metro conducted a planning effort specifically focused on the region's freight transportation system. The regional freight transportation system comprises multiple modal networks that both complement and compete with one another to move freight and deliver goods and services. This project looked at how the different elements of the regional freight transportation system function and interconnect in an effort to better address freight-related system needs and impacts. Critical elements of this planning effort included documenting freight system conditions and developing policies and actions, and an updated freight system map that were incorporated into the federal component of 2035 RTP, adopted in December 2007.

### Freight Task Force Desired Outcomes, Issues and Priorities

The Regional Freight and Goods Movement Task Force, a private and public stakeholder committee chaired by Councilor Rod Park, guided this planning effort. Their collective voice created a set of goals for regional freight movement, and identified key issues and priorities to be addressed by the region. This section summarizes the desired outcomes, key freight system issues and priorities developed by the task force.

### The desired outcomes statement:

The Portland-Vancouver region is a globally competitive international gateway and domestic hub for commerce. The multimodal freight transportation system is a foundation for economic activities and we must strategically maintain, operate, and expand it in a timely manner to ensure a vital and healthy economy.

- We must use a systems approach to plan and manage our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.
- We must adequately fund and sustain investment in our multimodal freight transportation system to ensure that the region and its businesses stay economically competitive.
- We must create first-rate multimodal freight networks that reduce delay, increase reliability, improve safety, and provide choices.
- We must integrate freight mobility and access needs in land use decisions to ensure
  efficient use of prime industrial lands, protection of critical freight corridors, and
  access for commercial delivery activities.
- We must ensure that our multimodal freight transportation system supports the health of the economy and the environment.

Key issues for the regional freight transportation system:

Congestion hotspots – chronic road and rail network bottlenecks impede flow of freight Reliability – unpredictable travel time due to crashes, construction, special events, and weather

Network barriers – safety concerns and out of direction travel caused by weight-limited bridges, low bridge clearances, at grade rail crossings and poorly designed intersections

Land use – System capacity and land for industrial uses is being lost to other activities

Impacts – managing adverse impacts including diesel emissions, water quality, and noise

With regard to investment priorities, the Regional Freight and Goods Movement Task Force stress the importance of focusing on preservation and management of the existing system.

Their investment priorities focus on:

- The core throughway system bottlenecks to improve truck mobility in and through the region hotspots of note include the Columbia River crossing influence area and the I-5/I-405 loop.
- The throughway interchanges that provide access to major industrial areas, particularly: I-5/Marine Drive and I-5/Columbia Blvd serving the Columbia Corridor and Rivergate industrial areas; I-205/Hwy 212 serving the Clackamas and Milwaukie industrial areas; and I-205/Airport Way serving Portland International Airport and east Columbia Corridor industrial areas.
- Improvements to the primary arterial connections to current and emerging industrial areas.
- Looking beyond the roadway network to address critical needs for marine and freight rail transportation that include completion of the Columbia River channel deepening and upgrading main line and rail yard infrastructure.

### **Next Steps**

Staff is working with the Regional Freight and Goods Movement Task Force members to finalize a recommended action plan, which will be brought to JPACT and Metro Council for consideration later this spring.

### BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE	)	RESOLUTION NO. 09-4032
RECOMMENDATION OF THE POLICY	)	
ADVISORY GROUP REGARDING THE	)	Introduced by Councilor Robert Liberty
LOCALLY PREFERRED ALTERNATIVE FOR		
THE SELL WOOD BRIDGE PROJECT		

WHEREAS, Multnomah County owns and maintains the Sellwood Bridge in the City of Portland which is nearing the end of its service life and in the long-term requires either major rehabilitation or replacement; and

WHEREAS, Multnomah County secured federal funding for the public planning and decision-making process which included development of an Environmental Impact Statement in compliance with the National Environmental Policy Act; and

WHEREAS, the Oregon Department of Transportation provided \$1.5 million in matching funds towards the Environmental Impact Statement; and

WHEREAS, in June of 2006, the Multnomah County Board of Commissioners convened a Policy Advisory Group (PAG) made up of elected and appointed representatives of jurisdictions with an interest in the Sellwood Bridge; and

WHEREAS, the current PAG representatives are Ted Wheeler (Chair of the Multnomah County Board of Commissioners), Sam Adams (Mayor of the City of Portland), Robert Liberty (Metro Councilor), Jason Tell (Director of the Oregon Department of Transportation - Region 1), Phillip Ditzler (Director of the Federal Highway Administration - Oregon District), Lynn Peterson (Chair of the Clackamas County Board of County Commissioners), Greg Chaimov (City of Milwaukie Councilor), Fred Hansen (Director, TriMet), and Carolyn Tomei (Member of the Oregon House of Representatives); and

WHEREAS, by Resolution 06-084, the Multnomah County Board of Commissioners appointed a Community Task Force (CTF) of 20 citizens representing different points of view and interests to assist in the decision-making process by selecting and recommending a Locally Preferred Alternative (LPA) to the PAG; and

WHEREAS the PAG was formed to review the recommendations of the CTF and to make their own recommendations. The recommendation that is approved by the Multnomah County Board of Commissioners will be considered by the Federal Highway Administration which has final authority in the matter of the LPA; and

WHEREAS, the CTF beginning in June 2006, analyzed the problems of the Sellwood Bridge project and the potential impacts of all proposed solutions, and on January 19, 2009, reached a consensus on a recommendation for the LPA; and

WHEREAS, the PAG met periodically between June 2006 and February 2009, and voted at five milestones to approve intermediate recommendations that led directly to the development of a LPA; and

WHEREAS, the PAG considered the recommendations of the CTF and on February 6, 2009, formed its own recommendation on a LPA with conditions; now, therefore

BE IT RESOLVED that the Metro Council hereby approves the Policy Advisory Group LPA Decision (Exhibit A) with conditions adopted on February 6, 2009, and directs its staff to continue its participation with Multnomah County and other jurisdictions with respect to the LPA and the completion of a Final Environmental Impact Statement (FEIS).

ADOPTED by the Metro Council this	day of	, 2009
	David Bragdon, Council P	resident
Approved as to Form:		
Daniel B. Cooper, Metro Attorney	<u> </u>	



# Policy Advisory Group LPA Decision

At their meeting on Friday, February 6, 2009, the Policy Advisory Group voted unanimously to endorse the following Locally Preferred Alternative (LPA) for the Sellwood Bridge Project with conditions:

- 1. Approval of bridge replacement rather than rehabilitation of the existing bridge;
- 2. Approval of alignment "D" (existing bridge alignment, widened to the south);
- 3. Approval of a pedestrian actuated signal at the SE Tacoma Street/SE 6th Avenue intersection at the east end of the bridge;
- 4. Approval of a grade-separated and signalized interchange at the intersection with Oregon 43 (Macadam Avenue) on the west end of the bridge;
- 5. Approval of a bridge cross-section of 64 feet or less at its narrowest point.

The Policy Advisory Group further directs their staff and the Multnomah County staff to refine the LPA design in accordance with the following conditions:

- Strive to reduce total project cost;
- Consider project phases as constrained by funding availability; recognizing that the
  established purpose of the project is "To rehabilitate or replace the Sellwood Bridge
  within its existing east-west corridor to provide a structurally safe bridge and
  connections that accommodate multi-modal mobility needs;"
- Explore options for reducing the cost of the west side interchange without making traffic conditions worse than the no-build alternative in the DEIS;
- Design the bridge as narrow as possible while maintaining two vehicular travel lanes, bike lane/shoulders, and sidewalks;
- Produce a design consistent with the adopted *Tacoma Main Street Plan*;
- Design the bridge to accommodate streetcar use;
- Minimize impacts to affected property owners;
- Strive to use sustainable construction materials and practices.

### DRAFT STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 09-4032, FOR THE PURPOSE OF APPROVING THE RECOMMENDATION OF THE POLICY ADVISORY GROUP REGARDING THE LOCALLY PREFERRED ALTERNATIVE FOR THE SELLWOOD BRIDGE PROJECT

Date: February 19, 2009 Prepared by: Tim Collins

503-797-1762

#### **BACKGROUND**

After more than 80 years, the Sellwood Bridge has reached the end of its useful service life. The bridge was constructed in 1925 to replace the Spokane Street Ferry, which shuttled passengers across the Willamette River between Sellwood and southwest Portland. The bridge, approximately 1,900 feet in length, is extremely narrow – two lanes, no shoulders or median, and one sidewalk that must accommodate light poles, pedestrians, and bicyclist. The bridge crosses the Willamette River on SE Tacoma Street on the east end and intersects with Oregon Highway 43 on the west end.

The west end of the bridge was constructed on fill material and is located in a geologically unstable area. The hillside above the bridge is slowly sliding toward the Willamette River, exerting pressure on the west end of the bridge. In the late 1950s, the hillside slid several feet toward the bridge. As a result, a 3-foot segment of the bridge deck had to be removed and foundations were reinforced. The west-side interchange with Oregon Highway 43 was completely rebuilt in 1980. Since then, ground movement has caused the west-side approach girders to crack.

Multnomah County is the owner of the bridge, and continues to take steps to prolong the safe use of the bridge until a long-term solution is identified. In June 2003, cracks in both the east and west concrete approaches were discovered and restrained with external steel clamps. The weight limit for vehicles traveling across the bridge was reduced from 32 tons to 10 tons. This limit caused the diversion of 94 daily TriMet bus trips (a loaded bus weighs about 19 tons). The weight restriction is still in effect. In 2005, an engineering study recommended short-term safety improvements for the bridge; cracks in the girders and columns were injected with epoxy in 2008.

The Sellwood Bridge project is listed as Project 1012 on the 2004 RTP financially constrained project list for the RTP program years 2004 to 2009.

The purpose of the Sellwood Bridge project is to rehabilitate or replace the bridge to make it structurally safe. Additionally, the project would improve connections, operations and safety for vehicles, bicycles, and pedestrians. The bridge carries more than 30,000 vehicles per day, making it Oregon's busiest two-lane bridge. Congested conditions and slow travel speeds occur because the travel demand served by the bridge exceeds the available capacity for several hours each day, primarily the morning and evening peak hours. Multnomah County has been working with ODOT, Clackamas County, the City of Portland, and Metro to find a solution for the bridge. The following four main issues identify the need for this project:

• Inadequate structural integrity to safely accommodate various vehicle types (including transit vehicles, trucks, and emergency vehicles) and to withstand moderate seismic events

- Substandard and unsafe roadway design
- Substandard pedestrian and bicycle facilities across the river
- Existing and future travel demands between origins and destinations served by the Sellwood Bridge exceed available capacity

### **ANALYSIS/INFORMATION**

- 1. **Known Opposition** Persons living in the condominiums that will be directly impacted by the alignment of the recommended Locally Preferred Alternative.
- 2. **Legal Antecedents** In May 1999, Metro made recommendations (resolution # ) for the *South Willamette River Crossing Study*, which included the Sellwood Bridge. One of the study's recommendations was to preserve the existing Sellwood Bridge, or replace it as a two-lane bridge with better service for bicyclist and pedestrians.
- 3. **Anticipated Effects** Adoption of the Locally Preferred Alternative will allow the project to move forward to develop a Final Environmental Impact Statement which will determine the bridge type and size as part of the NEPA process.
- **4. Budget Impacts** None known.

### RECOMMENDED ACTION

That the Metro Council approves the Policy Advisory Group LPA Decision (Exhibit A) with conditions adopted on February 6, 2009, and directs its staff to continue its participation with Multnomah County and other jurisdictions with respect to the LPA and the completion of a Final Environmental Impact Statement (FEIS).

### **Exhibit A**



# **Policy Advisory Group LPA Decision**

At their meeting on Friday, February 6, 2009, the Policy Advisory Group voted unanimously to endorse the following Locally Preferred Alternative (LPA) for the Sellwood Bridge Project with conditions:

- 1. Approval of bridge replacement rather than rehabilitation of the existing bridge;
- 2. Approval of alignment "D" (existing bridge alignment, widened to the south);
- Approval of a pedestrian actuated signal at the SE Tacoma Street/SE 6th Avenue intersection at the east end of the bridge;
- 4. Approval of a grade-separated and signalized interchange at the intersection with Oregon 43 (Macadam Avenue) on the west end of the bridge;
- 5. Approval of a bridge cross-section of 64 feet or less at its narrowest point.

The Policy Advisory Group further directs their staff and the Multnomah County staff to refine the LPA design in accordance with the following conditions:

- Strive to reduce total project cost;
- Consider project phases as constrained by funding availability; recognizing that the
  established purpose of the project is "To rehabilitate or replace the Sellwood Bridge
  within its existing east-west corridor to provide a structurally safe bridge and
  connections that accommodate multi-modal mobility needs;"
- Explore options for reducing the cost of the west side interchange without making traffic conditions worse than the no-build alternative in the DEIS;
- Design the bridge as narrow as possible while maintaining two vehicular travel lanes, bike lane/shoulders, and sidewalks;
- Produce a design consistent with the adopted Tacoma Main Street Plan;
- Design the bridge to accommodate streetcar use;
- Minimize impacts to affected property owners;
- Strive to use sustainable construction materials and practices.

### BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AMENDING THE 2008-	)	RESOLUTION NO. 09-4022
11 METROPOLITAN TRANSPORTATION	)	
IMPROVEMENT PROGRAM (MTIP) TO ADD	)	Introduced by Councilor Rex Burkholder
PROJECTS TO RECEIVE FUNDING FROM THE	)	•
AMERICAN RECOVERY AND	)	
REINVESTMENT ACT	)	
	)	

WHEREAS, the Metropolitan Transportation Improvement Program (MTIP) prioritizes projects from the Regional Transportation Plan to receive transportation related funding; and

WHEREAS, the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council must approve the MTIP and any subsequent amendments to add new projects to the MTIP; and

WHEREAS, the JPACT and the Metro Council approved the 2008-11 MTIP on August 16, 2007; and

WHEREAS, the federal government recently passed the American Recovery and Reinvestment Act; and

WHEREAS, this act will provide approximately \$38 million for distribution through Metro as the region's Metropolitan Planning Organization, \$44 million to TriMet and \$450,000 to South Metro Area Rapid Transit (SMART) for transit projects, and funding to the Oregon Department of Transportation, a portion of which will be allocated to highway projects in the Metro Area; and

WHEREAS, all projects in the Metro Area to receive these funds must be included in the MTIP; and

WHEREAS, these funds must be put to use in a short time frame in order to meet federal deadlines and stimulate the economy; and

WHEREAS, the projects listed in Exhibit A, attached to this resolution, have been analyzed and found to conform to air quality regulations and regional transportation emissions budgets; and

WHEREAS, the public has had an opportunity to review and comment on these proposed projects; and

WHEREAS, an additional MTIP amendment will be brought to JPACT and the Metro Council to select additional projects for the remaining funds; therefore

BE IT RESOLVED that the Metro Council Is amend the 2008-11 Metropolitan Transportation Imp Exhibit A, attached.	nereby adopts the recommendation of JPACT to provement Program to add the projects listed in
ADOPTED by the Metro Council this 5th day of Ma	rch 2009.
Approved as to Form:	David Bragdon, Council President
Daniel B. Cooper, Metro Attorney	

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
City of Portland										
Portland	SE Madison			Preservation of arterial, transit, bicycle - grind and pave		\$1,050,000		Y	N/A	Υ
Portland	SE 39th Avenue			Preservation of arterial, transit, bicycle - grind and pave		\$2,050,000		Y	N/A	Υ
Portland	SE Hawthorne			Preservation of arterial, transit, bicycle - grind and pave		\$1,250,000		Y	N/A	Υ
Portland	North Going Rail Overcrossing			Bridging funding gap to ensure completion	\$4,300,000	\$500,000	\$3,800,000	Y	1109	Υ
Portland	Leadbetter Overcrossing			Adding rail crossing improvements at grade crossing	\$11,500,000	\$500,000		Y	4087	Υ
Portland/TriMet	SW Columbia & SW Jefferson Bus Pads			Concrete Bus Pads on SW Columbia and SW Jefferson		\$500,000		Y	N/A	N - FTA
Portland/TriMet	SW 3rd & SW 4th Base Repair			Base repair and paving on areas of 3rd and 4th damaged by bus loads.  Preservation of arterial, transit, bicycle.		\$500,000		Y	N/A	N - FTA
Portland/TriMet	Lake Oswego Shoreline Trestles			Trestle repair to maintain level of service		\$200,000		Y	N/A	N - FTA
Portland/TriMet	SW Yamhill & SW Morrison brick intersections			Replacement of brick intersections on SW Yamhill & SW Morrison		\$1,000,000		Y	N/A	N - FTA
Portland	NW 23rd Avenue			Bridging Funding gap		\$432,000		N	1209	Υ
Portland	So Auditorium Lighting Phase I			Replace foundation, poles, and lighting fixtures to a maintainable status.  Install conduit and power wire to a standard depth.	\$3,900,000	\$3,900,000		N	N/A	Υ
Portland	Bicycle Blvd			Striping and Signage	\$1,000,000	\$1,000,000		N		Υ
Portland	Paving SW Capitol Hgwy			Preservation of arterial, bicycle - grind and pave	\$2,000,000	\$2,000,000		N	N/A	Υ
Portland	Paving NW Front Avenue			Preservation of arterial, freight, transit, bicycle - grind and pave	\$2,500,000	\$2,500,000		N	N/A	Υ
Portland	Eastside Streetcar signals and ramps			2 signal upgrades, ADA curb ramps at intersections for Eastside Streetcar		\$1,486,832		N		Υ
Portland	82nd Avenue and Columbia			Bridging Funding gap		\$1,000,000		N	4022	Υ
Portland	Springwater Trail Repaving	UPRR Bridge	E City border	Repave Springwater Trail from Sellwood to City border		\$1,800,000		N		Υ
				Subtotal:		\$21,668,832				
East Multnomah Co	ounty and Cities									
Gresham	Hogan Road	Glisan	Stark	Widen Hogan Road to city standards providing 4 travel lanes, 1 center left turn lane, bicycle lanes and sidewalks.	\$2,400,000	\$2,400,000		Y		Y
Multnomah County	Halsey St, Stark St, & Troutdale Rd Sidewalks Project	Multiple	Locations	Install sidewalks in 4 locations: NE Halsey St: 238th-244th, Stark St: 257th - Troutdale Rd., Troutdale Rd: S.E.18th-19th St. (eastside) and Stark St. to Beaver Creek (eastside).	\$1,725,000	\$1,725,000	\$0	Y		Y
				Subtotal:		\$4,125,000				

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Clackamas County	and Cities									
Clackamas County	Sunnyside Road	82nd Ave	I-205	Paving and Replacement of Traffic Signal Video Detection System	\$1,802,000	\$1,170,000	\$632,000	Y	n/a	Y
Lake Oswego	Royce	Bryant	Westview	The project will dig out, grind and replace 2" of the entire asphalt surface	\$428,000	\$428,000	\$0	N	no	N
Lake Oswego	McNary	Kerr	Kerr	The project will dig out, grind and replace 2" of the entire asphalt surface	\$416,000	\$416,000	\$0	N	no	N
Lake Oswego	Willamette Shore Trolley	LO trestle		Trestle repair on Lake Oswego Trolley line	\$100,000	\$100,000	\$0	N	no	N
City of Milwaukie	Linwood Ave Re-surfacing	Monroe St.	Railroad Ave.	2" grind & overlay	\$565,000	\$565,000	\$0	Y	n/a	Y
City of Milwaukie	River Road Re-surfacing	McLoughlin	City Limit	2" grind & overlay	\$140,000	\$140,000	\$0	Υ	n/a	Y
City of Milwaukie	Jackson Street sidewalks	Main Street	21st Avenue	Reconstruction of sidewalk/streetscape including street trees, utility undergrounding, street furniture, bulbouts, etc.	\$640,000	\$600,000	\$40,000 (design)	N	no	Y
Oregon City	Molalla Avenue/Warner Milne/Beavercreek intersection	Warner Milne	Beavercreek	realign traffic intersection, update signal timing, add sidewalks	\$2,956,000	\$1,170,000	\$1,786,000	Y	n	Y
City of West Linn	Santa Anita Dr. (North of Horton, per plan)	Horton Rd.	Hidden Springs Rd.	Reconstruction with Cement Treated Base and 6" of AC in 3 lifts	\$475,000	\$475,000	\$0	Y	n/a	Y
City of West Linn	Santa Anita Dr. (South of Horton)	Horton Rd.	410' South to joint separation	Reconstruction and overlay	\$50,500	\$50,500	\$0	Y	n/a	Y
City of West Linn	Hidden Springs Rd.	Cottonwood Ct.	Hwy 43	Reconstruction with Cement Treated Base and 6" of AC in 3 lifts	\$420,000	\$420,000	\$0	Y	n/a	Y
City of West Linn	Hidden Springs Rd.	Bluegrass Wy.	Cottonwood Ct.	Grind 2" and overlay with 2.5" AC	\$93,000	\$93,000	\$0	Y	n/a	Y
City of West Linn	Suncrest Dr.	Hidden Springs Rd.	Carriage Wy.	Grind and 2" AC overlay with fabric	\$134,000	\$124,000	\$10,000	Y	n/a	Y
Wilsonville	Barber Street Improvements	Boones Ferry Road	Boberg Road	Street preservation and upgrade with associated utility work.	\$1,000,000	\$400,000	\$600,000	Υ	No	Y
				Subtotal:		\$6,151,500				1

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Washington Count	ty and Cities									
Beaverton	Laurelwood Ave Sidewalk	Beaverton- Hillsdale Hwy	Birchwood Rd	Install sidewalk to provide safe pedestrian access to transit route and improve the livability of the neighborhood. Construct sidewalks and ADA ramps	\$343,000	\$343,000		Y	No	Υ
Beaverton	Birchwood Rd Sidewalk	87th Ave	Laurelwood Ave	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$170,000	\$170,000		Y	No	Υ
Beaverton	Farmington Rd Adaptive Signal Control Installation	Hocken Ave	Griffith Dr	Upgrade existing traffic signal control software to SCATS adaptive signal control system at 7 signalized intersections. The existing Model 170 signal controllers will be upgraded to 2070L signal controllers. In addition to these upgrades, the signalized intersections will be connected to the regional centralized signal control system for real-time remote monitoring and signal timing adjustments capabilities.	\$804,000	\$804,000		Y	10642	Y
Beaverton	Hall Blvd Overlay	Hart Rd	Ridgecrest Dr	Overlay	\$785,000	\$785,000		Y	No	Y
Beaverton	Cedar Hills Blvd Adaptive Signal Control Installation	Millikan Way		update existing traffic control software to SCATs adaptive signal control system at 6 signalized intersections. The existing model 170 signal controllers will be upgraded to 2070L signal controllers. The signalized intersections will also be connected to the regional centralized signal control system for real time remote monitoring and signal timing adjustment capabilities.	\$906,000	\$906,000		Y	10642	Y
Beaverton	Cedar Hills Blvd Signal Re-timing	Millikan Way	Walker Rd	collect new traffic volumes and update the signal timing along the corridor	\$56,000	\$56,000		Y	10642	Υ
Beaverton	87th Ave Sidewalk	Birchwood Rd	Canyon Rd	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$306,000	\$306,000		Y	No	Υ
Cornelius	Hwy. 8/Adair Blvd.	10th Ave	19th Ave	Utility connections, sidewalk repair and street furniture	\$289,502	\$289,502				Existing
Cornelius	10th Ave.	Alpine	Holladay	Construct sidewalks, illumination, bikeways, curb & gutter and on-street parking	\$2,354,000	\$2,354,000				Υ
Forest Grove	Town Center Ped Improvements			curb, sidewalks, lighting and multi-use amenities	\$500,000	\$500,000		Υ	Y	Υ
Forest Grove	Town Center Ped Improvements			curb, sidewalks, lighting and multi-use amenities	\$1,100,000	\$1,100,000		Y	Y	Υ
Hillsboro	Intermodal Transit Facility	Baseline	7th & 8th	Construct parking structure with shared park & ride and transit oriented development	\$14,500,000	\$2,110,706	\$12,389,294	Y	N/A	Y
Hillsboro	Various Street Overlays	N/A	N/A	development	\$2,110,706	\$2,110,706		Y	N/A	Υ
Sherwood	Sherwood Boulevard Overlay	3rd St	12th St	Grind & Overlay 2,740 LF of Collector status road	\$278,000	\$278,000		Y	N/A	Υ
Sherwood	Pine Street Overlay	1st St	3rd St	Grind & Overlay 837 LF of Collector status road	\$86,000	\$86,000		Υ	N/A	Υ
Sherwood	1st Street Rehabilitation	Pine St	Ash St	Remove, CTB & Pave 490 LF of Collector status road	\$52,000	\$52,000		Υ	N/A	Υ
Sherwood	Lincoln Street Overlay	Oregon St	Division St	Grind & Overlay 2,054 LF of Collector status road	\$95,000	\$95,000		Υ	No	Υ
Sherwood	Pine Street Overlay			Paving	\$1,850,000	\$388,170	\$1,461,830			Υ
Tigard	Durham Road	Upper Boones Ferry	72nd	2" Pavement Overlay	\$310,000	\$310,000		Y	N/A	Y - 1
Tigard	72nd Avenue	Upper Boones Ferry	Landmark	2" Pavement Overlay	\$335,000	\$335,000				Y - 1
Tigard	72nd Avenue	Landmark	Fir	2" Pavement Overlay	\$155,000	\$155,000				Y - 1
Tigard	Bonita Road	I-5 Bridge	Railroad	2" Pavement Overlay	\$130,000	\$130,000				Y - 1
Tigard	Citywide 'Small Fix' Congestion Solutions			Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$100,000	\$100,000		N	N/A	Y - 2
Tigard	McDonald Street	97th Ave	Hwy 99W	2" Pavement Overlay	\$270,000	\$270,000				Y - 1
Tigard	Pfaffle Street	84th Ave	78th Ave	2" Pavement Overlay	\$210,000	\$210,000				Y - 1
Tigard	Sequoia Parkway	Upper Boones Ferry	Cardinal Dr	2" Pavement Overlay	\$240,000	\$240,000				Y - 1

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Washington Coun	ty and Cities cont.									
Tigard	Citywide 'Small Fix' Congestion Solutions			Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$140,000	\$140,000		N	N/A	Y-2
Tigard	Bonita	RR	76th	2" Pavement Overlay	\$55,000	\$55,000				Y -1
Tigard	72nd	Hwy. 217 NB	Beveland	2" Pavement Overlay	\$82,000	\$82,000				Y - 1
Tualatin	Teton AvenueCR RR Xing			Install 4 Quad RR Xing gates	\$681,778	\$681,778				N
Tualatin	95th Ave. RR Xing			Install raised median and associated improvements	\$50,000	\$50,000		Y	No	N
Wash. Co.	Group A Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$750,000	\$750,000		Υ	No	N
Wash. Co.	Group E Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$850,000	\$850,000		Υ	No	Y
Wash. Co.	143rd Ave. Pedestrian Path	Windermere Apts	W. Union Rd.	Construct 2400' of new asphalt path to improve pedestrian access to two schools.	\$150,000	\$150,000		Y	No	Y
Wash. Co.	Interior Illuminated Sign Replace.	n/a	n/a	Replaces existing illuminated signs with diamond grade sheeting, which subsequently reduces electrical costs.	\$100,000	\$100,000		Y	No	Y
Wash. Co.	Walker Road Pedestrian Bridge	173rd Ave	Cambray St.	Install pedestrian bridge across creek to connect existing sidewalks on both sides of project.	\$100,000	\$100,000		Y	No	Y
Wash. Co.	School Zone Flasher Units	n/a	n/a	Install solar powered School Zone Flasher Units at various locations. Improves efficiency and safety.	\$150,000	\$150,000		Y	No	Y
Wash. Co.	Flashing Yellow Arrows	n/a	n/a	Install new signal head and hardware at various intersections to improve efficiency and reduce traffic delays.	\$500,000	\$500,000		Y	No	Y
Wash. Co.	Traffic Signal Retiming	n/a	n/a	Retain consultants to evaluate signal timing, and make necessary changes to improve traffic flow, improve congestion, and air quality.	\$600,000	\$600,000		N	No	Y
Wash. Co.	ITS Project - Cornell Road	Main St.	Corn Pass Rd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$1,550,000	\$1,550,000		N	No	Y
Wash. Co.	ITS Project - 185th Avenue	Baseline Rd.	Hwy. 26	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$870,000	\$870,000		N	No	Y
Wash. Co.	ITS Project - Scholl's Ferry Rd	Murray Blvd	Hall Blvd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$881,000	\$881,000		N	No	Y
				Subtotal:		\$21,993,862				

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Additional Project	Requests									
Gladstone	East Arlington Street			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" near curbs. Right-of-way and easements are not needed; work would be done entirely within existing 36" wide curb to curb improvements. This project is the city's number three priority for possible funding. The project can be bid within 30 days of project selection.	\$177,854	\$177,854		Y		Υ
Gladstone	East Dartmouth Street			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 14' from existing curbs. Paving 28' wide is proposed within the 56' curb-to-curb street width. Right-of-way and easements are not needed; work would be done entirely within existing curb to curb improvements. This project is the city's number two priority for possible funding. Project can be bid in 30 days of project selection.	\$141,137	\$141,137		Y		Y
Gladstone	Valley Views/Los Verdes			Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 6" from curbs along the roadway. Right-of-way and easements are not needed; work would be done entirely within existing 36' wide curb to curb improvements. This project is the city's number one priority for possible funding. Project can be bid in 30 days of project selection.	\$167,544	\$167,544		Y		Y
Happy Valley	Street Maintenance and Reconstructions				\$3,542,000	\$3,542,000		Y		Y
Happy Valley	SE 147th Avenue Storm System			The project includes providing catch basins and storm piping to mitigate storm water runoff that is eroding the street section and flooding neighborhood properties	\$531,000	\$531,000		Y		Υ
Happy Valley	Super Block Sidewalk and Bike Lane Improvements			Design and construct pedestrian improvements and a bike lane around Super Block roads, which encircle an elementary school, middle school, and city park	\$5,131,000	\$5,131,000		N		Y
Happy Valley	SE 122nd/129th Avenue Improvements			Improve safety and pedestrian and bike access	\$14,230,000	\$14,230,000		Y		Υ
Happy Valley	SE 162nd Avenue Improvements			Design a new three lane collector roadway with traffic signals and a bridge over rock creek	\$8,000,000	\$8,000,000		Y		Y
Happy Valley	SE 172nd Avenue Improvements			Design a new five lane collector roadway with traffic signals and a bridge	\$15,000,000	\$15,000,000		N		Y
Lake Oswego	Westlake Dr.	Melrose	Kruse Way	The project will dig out, grind and replace 2" of the entire asphalt surface	\$424,000	\$424,000	\$0	у	n/a	N
Lake Oswego	Misc. Signal Upgrades	various		improve signal timing at six intersections to reduce delay	\$98,000	\$98,000	\$0	у	no	N
Port	Graham Rd Reconstruction			Overlay and reconstruct	\$2,468,000	\$2,468,000		Ready for bid by June 2010		Υ
Port	South Frontage Rd			Construct a third through lane the length of eastbound frontage road and provide dual left turn lanes at the east undercrossing	\$4,474,008	\$4,474,008		bid by August 2009		Y
Port	Troutdale Interchange/North Frontage Rd/Graham Rd	_		Signal modification, construction of a short lane on the north leg of the intersection and an auxiliary lane on westbound North Frontage rd.	\$1,529,000	\$1,529,000		bid by August 2009		Y
Port	Graham Rd/Sundial Intersection			Construct a traffic signal at the intersection of Graham and Sundial Road and add a westbound turn lane	\$631,000	\$631,000		Bid by June-July 2010		Y
SMART	Wilsonville SMART Fleet Services Facility			Design and construct a state of the art fleet facility/ operations center. This 20,000 square foot facility will incorporate cost-effective, environmentally sensitive site work and construction, with "Green"/LEED-certification for the facility as the ultimate goal. This facility will be the operating center for SMART dispatch, training, field operations and fleet maintenance. This infrastructure is vital for SMART to meet current and future service demand. The facility will provide adequate access and accommodate parking for SMART's growing fleet of buses as well as a bus wash facility and an energy efficient fueling system.	\$11,800,000	\$9,550,000	\$2,250,000		2035 RTP #11112	Y

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	Local Funding	Obligate in < 150 days? (Y/N)	In RTP? (RTP #, No or N/A)	Prospectus submitted? (Y/N)
Additional Project	Requests cont.	_								
SMART	SMART Bus Replacements			Replace ten heavy duty buses that are between 10 and 20 years old and still in operation. These inefficient coaches will be replaced with energy efficient modern coaches	\$3,500,000	\$3,500,000			2035 RTP #11109	Y
SMART	SMART Offices/Administration Facility (Customer Service Center)			The SMART Offices/Customer Service Center project is a 5000 square foot facility, designed to incorporate energy saving technologies and transit amenities. Smart's customer service center will be on the ground floor and Smart offices above. This center will allow SMART to provide on-site personnel to enhance security for the transit center and park and ride.	\$2,900,000	\$2,900,000				Y
West Linn	Rosemont Rd	1271 Rosemount Rd	Santa Anita Dr	Install 18,270 ft2 of ac overlay, and spot repair 1,737ft2 of the base.	\$35,000	\$35,000		ready by 3rd quarter 2009		Y
West Linn	Dollar St	Brandon Place	WFD east	2.5 in overlay (2'+fabric)	\$275,000	\$275,000				Y
West Linn	12th St	#1201 12th ST.	Tualatin Ave.	Reconstruct (Part)	\$38,500	\$38,500				Y
West Linn	12th St	Tualatin Ave.	WFD	Reconstruct	\$305,000	\$305,000				Y
Wilsonville	Brown Road Improvements	Wilsonville Road	Evergreen Avenue	Widening and improving 0.36 miles of roadway with associated utility work.	\$1,000,000	\$400,000	\$600,000	Y	No	Y
Wilsonville	Grahams Ferry Road Improvements	Barber Street	LEC Property	Improve road and add bike lane with water, sewer and storm work	\$300,000	\$170,000	\$130,000	Y	No	Y

### STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 09-4022, FOR THE PURPOSE OF AMENDING THE 2008-11 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM (MTIP) TO ADD PROJECTS TO RECEIVE FUNDING FROM THE AMERICAN RECOVERY AND REINVESTMENT ACT

Date: March 5, 2009 Prepared by: Ted Leybold 503-797-1759

### **BACKGROUND**

In an effort to stimulate the national economy, the federal government has passed the American Recovery and Reinvestment Act. Funding for transportation projects is a significant part of the act and will be distributed through federal transportation agencies. Approximately \$38 million is expected to be available for local transportation projects in the Metro region, \$44 million for transit projects and a portion of approximately \$225 million statewide for highway improvements through the Oregon Department of Transportation (ODOT).

ODOT, TriMet and SMART have proposed an initial list of projects for consideration into the MTIP. Local transportation agencies have also submitted proposed projects for funding allocated through Metro. These project proposals are provided in Exhibit A to Resolution No. 09-4022.

### ANALYSIS/INFORMATION

- 1. **Known Opposition** None known at this time. The public comment period closes March  $3^{rd}$  and comments will be provided at the March  $5^{th}$  JPACT and Metro Council meetings.
- **2. Legal Antecedents** Amends the 2008-11 Metropolitan Transportation Improvement Program adopted by Metro Council Resolution 07-3825 on August 16, 2007 (For the Purpose of Approving the 2008-11 Metropolitan Transportation Improvement Program for the Portland Metropolitan Area).
- **3. Anticipated Effects** Adoption of this resolution will make available additional transportation funding to local agencies in the Metro region for several projects.
- 4. **Budget Impacts** None.

### RECOMMENDED ACTION

Approve Metro Resolution No. 09-4022.

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Administration	n									
	Project Delivery Staffing									
	Safety Valve Project(s)									
City of Portla	nd									
Portland	SE Madison	SE Grand	SE 12th	Preservation of arterial, transit, bicycle - grind and pave		\$1,050,000				
Portland	SE 39th Avenue	SE Holgate	SE Woodstock	Preservation of arterial, transit, bicycle - grind and pave		\$2,050,000				
Portland	SE Hawthorne	SE Grand	SE 12th	Preservation of arterial, transit, bicycle - grind and pave		\$1,250,000				
Portland	North Going Rail Overcrossing	bridge	-	Bridging funding gap to ensure completion	\$4,300,000	\$500,000				
Portland	82nd Avenue and Columbia	at intersection	-	Bridging Funding gap		\$200,000				
Portland	So Auditorium Lighting Phase I	SW Naito to SW 4th	SW Clay to SW Arthur	Replace foundation, poles, and lighting fixtures to a maintainable status.  Install conduit and power wire to a standard depth.	\$3,900,000	\$3,900,000				
Portland	Bicycle Blvd	citywide	-	Striping and Signage - Wayfinding	\$1,000,000		\$1,000,000			
Portland	Springwater Trail Repaving	UPRR Bridge	E City border	Repave Springwater Trail from Sellwood to City border			\$1,800,000			
Portland	NW 23rd Avenue	NW Lovejoy	NW Burnside	Bridging Funding gap			\$432,000			
Portland	Eastside Streetcar signals and ramps	various	-	2 signal upgrades, ADA curb ramps at intersections for Eastside Streetcar			\$356,832			
Portland	Leadbetter Overcrossing	bridge	-	Adding rail crossing improvements at grade crossing	\$11,500,000		\$350,000			
Portland/ TriMet	SW Columbia & SW Jefferson Bus Pads	SW Naito	SW 14th	Concrete Bus Pads on SW Columbia and SW Jefferson			\$500,000			
Portland/ TriMet	SW 3rd & SW 4th Base Repair	3rd: Glisan 4th: Glisan	3rd: Market 4th: Lincoln	Base repair and paving on areas of 3rd and 4th damaged by bus loads.  Preservation of arterial, transit, bicycle.			\$500,000			
Portland/ TriMet	Lake Oswego Shoreline Trestles	trestles	-	Trestle repair to maintain level of service			\$200,000			
Portland/ TriMet	SW Yamhill & SW Morrison brick intersections	intersection	-	Replacement of brick intersections on SW Yamhill & SW Morrison			\$1,000,000			
				City of Portland Subtotal:		\$8,950,000	\$6,138,832			
				City of Portland 100% Target		\$14,691,106	\$14,691,106			
				% of Target		61%	42%			
East Multnom	ah County and Cities									

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Gresham	Hogan Road	Glisan	Stark	Widen Hogan Road to city standards providing 4 travel lanes, 1 center left turn lane, bicycle lanes and sidewalks.	\$2,400,000	\$2,400,000				
Multnomah County	Halsey St, Stark St, & Troutdale Rd Sidewalks Project	Multiple locations	-	Install sidewalks in 4 locations: NE Halsey St: 238th-244th, Stark St: 257th - Troutdale Rd., Troutdale Rd: S.E.18th-19th St. (eastside) and Stark St. to Beaver Creek (eastside).	\$1,000,000		\$1,000,000			
				East Multnomah Subtotal:		\$2,400,000	\$1,000,000			
				East Multnomah County 100% Target		\$3,365,871	\$3,365,871			
				% of Target		71%	30%			
Clackamas Co	ounty and Cities									
Clackamas County	Sunnyside Road	82nd Ave	I-205	Paving and Replacement of Traffic Signal Video Detection System	\$1,802,000		\$900,000			
Happy Valley	Street Maintenance and Reconstructions	Various	-	Consists of a combination of resurfacing, slurry seal, crack sealing and chip sealing these minor arterial.	\$3,542,000	\$900,000				
Lake Oswego	Royce	Bryant	Westview	The project will dig out, grind and replace 2" of the entire asphalt surface	\$428,000	\$428,000				
Lake Oswego	McNary	Kerr	Kerr	The project will dig out, grind and replace 2" of the entire asphalt surface	\$416,000	\$416,000				
Lake Oswego	Misc. Signal Upgrades	various	-	improve signal timing at six intersections to reduce delay	\$98,000	\$98,000				
Milwaukie	Linwood Ave Re-surfacing	Monroe St.	Railroad Ave.	2" grind & overlay	\$580,000		\$160,000			
Milwaukie	River Road Re-surfacing	McLoughlin	City Limit	2" grind & overlay	\$140,000		\$140,000			
Milwaukie	Jackson Street sidewalks	Main Street	21st Avenue	Reconstruction of sidewalk/streetscape including street trees, utility undergrounding, street furniture, bulbouts, etc.	\$765,000		\$725,000			
Oregon City	Molalla Avenue/Warner Milne/Beavercreek intersection	Warner Milne	Beavercreek	realign traffic intersection, update signal timing, add sidewalks	\$2,956,000		\$900,000			
West Linn	Salamo Road	Barrington Dr	Rosemont	Grind 2" and overlay	\$1,004,000	\$900,000				
Gladstone	Valley Views/Los Verdes, Dartmouth, and Arlington Streets	Jennings	Crownview	Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 6" from curbs along the roadway.  Right-of-way and easements are not needed.	\$486,535	\$486,535				
Wilsonville	Barber Street Improvements	Boones Ferry Road	Boberg Road	Street preservation and upgrade with associated utility work.	\$1,000,000		\$900,000			
				Clackamas Subtotal:		\$3,228,535	\$3,725,000			
				Clackamas County 100% Target		\$7,151,051	\$7,151,051			
				% of Target		45%	52%			

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Washington (	County and Cities									
Beaverton	Farmington Rd Adaptive Signal Control Installation	Hocken Ave	Griffith Dr	Upgrade existing traffic signal control software to SCATS adaptive signal control system at 7 signalized intersections. The existing Model 170 signal controllers will be upgraded to 2070L signal controllers. In addition to these upgrades, the signalized intersections will be connected to the regional centralized signal control system for real-time remote monitoring and signal timing adjustments capabilities.	\$804,000	\$804,000				
Beaverton	Hall Blvd Overlay	Hart Rd	Ridgecrest Dr	Overlay	\$785,000	\$785,000				
Beaverton	Laurelwood Ave Sidewalk	Beaverton- Hillsdale Hwy	Birchwood Rd	Install sidewalk to provide safe pedestrian access to transit route and improve the livability of the neighborhood. Construct sidewalks and ADA ramps	\$343,000		\$343,000			
Beaverton	Cedar Hills Blvd Signal Re-timing	Millikan Way	Walker Rd	collect new traffic volumes and update the signal timing along the corridor	\$56,000		\$56,000			
Beaverton	87th Ave Sidewalk	Birchwood Rd	Canyon Rd	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps	\$306,000		\$306,000			
Cornelius	Hwy. 8/Adair Blvd.	10th Ave	19th Ave	Utility connections, sidewalk repair and street furniture	\$50,000	\$50,000				
Cornelius	Arterial/Collector Overlay & Sealing	Holladay St., 10th Ave.	6 Blocks, 9 Blocks,	Sealing & repair of cracks in concrete paved industrial collector Holladay St. in preparation for State Cert. Industrial Site; Grind & overlay of asphalt paved	\$350,000		\$350,000			
Forest Grove	Town Center Ped Improvements	-	-	curb, sidewalks, lighting and multi-use amenities	\$500,000	\$500,000				
Hillsboro	Intermodal Transit Facility or overlay of arterials and collectors (overlay project becomes top priority is intermodal facility can't be obligated)	Baseline	7th & 8th	Construct parking structure with shared park & ride and transit oriented development	\$14,500,000	\$2,346,000				
Sherwood	Sherwood Boulevard Overlay	3rd St	12th St	Grind & Overlay 2,740 LF of Collector status road	\$278,000	\$278,000		Criteria sent 2/24.		
Sherwood	Pine Street Overlay	Division St	Sunset Blvd	Paving	\$1,850,000		\$388,170	Criteria sent 2/24.		
Tigard	Bonita Road	I-5 Bridge	Railroad	2" Pavement Overlay	\$156,000	\$156,000				
Tigard	Durham Road	Upper Boones Ferry	72nd	2" Pavement Overlay	\$372,000	\$372,000				
Tigard	Citywide 'Small Fix' Congestion Solutions	-	-	Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$80,000	\$80,000				
Tigard	72nd Avenue	Upper Boones Ferry	Landmark	2" Pavement Overlay	\$402,000		\$402,000			
Tigard	72nd Avenue	Landmark	Fir	2" Pavement Overlay	\$186,000		\$186,000			

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Tigard	Citywide 'Small Fix' Congestion Solutions	-	-	Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$80,000		\$80,000			
Tualatin	95th Ave. RR Xing	at crossing	-	Install raised median and associated improvements	\$74,000	\$74,000				
Tualatin	Teton Ave. RR Xing	at crossing	-	Install 4 Quad RR Xing gates	\$615,000	\$615,000				
Wash. Co.	Group A Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$1,000,000	\$1,000,000				
Wash. Co.	Group E Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$1,000,000	\$1,000,000				
Wash. Co.	Interior Illuminated Sign Replace.	n/a	n/a	Replaces existing illuminated signs with diamond grade sheeting, which subsequently reduces electrical costs.	\$150,000	\$150,000				
Wash. Co.	School Zone Flasher Units	n/a	n/a	Install solar powered School Zone Flasher Units at various locations. Improves efficiency and safety.	\$250,000	\$250,000				
Wash. Co.	ITS Project - Scholl's Ferry Rd	Murray Blvd	Hall Blvd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$881,000		\$881,000			
Wash. Co.	143rd Ave. Pedestrian Path	Windermere Apts	W. Union Rd.	Construct 2400' of new asphalt path to improve pedestrian access to two schools.	\$300,000		\$300,000			
Wash. Co.	Walker Road Pedestrian Bridge	173rd Ave	Cambray St.	Install pedestrian bridge across creek to connect existing sidewalks on both sides of project.	\$200,000		\$200,000			
Wash. Co.	Flashing Yellow Arrows	n/a	n/a	Install new signal head and hardware at various intersections to improve efficiency and reduce traffic delays.	\$500,000		\$500,000			
Wash. Co.	Traffic Signal Retiming	n/a	n/a	Retain consultants to evaluate signal timing, and make necessary changes to improve traffic flow, improve congestion, and air quality.	\$600,000		\$600,000			
				Washington Subtotal:		\$8,460,000	\$4,592,170			
				Washington County 100% Target		\$12,791,973	\$12,791,973			
				% of Target		66%	36%			
				Region Subtotal		\$23,038,535	\$15,456,002			
				Region 100% Target		\$38,000,000	\$38,000,000			
				% of Target		61%	41%			

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Street Preser	vation and Reconstruction									
Portland	SE Madison	SE Grand	SE 12th	Preservation of arterial, transit, bicycle - grind and pave		\$1,050,000		Repave and restripe bike lane		
Portland	SE 39th Avenue	SE Holgate	SE Woodstock	Preservation of arterial, transit, bicycle - grind and pave		\$2,050,000				
Portland	SE Hawthorne	SE Grand	SE 12th	Preservation of arterial, transit, bicycle - grind and pave		\$1,250,000				
Portland	NW 23rd Avenue	NW Lovejoy	NW Burnside	Bridging Funding gap			\$432,000			
Portland/ TriMet	SW 3rd & SW 4th Base Repair	3rd: Glisan 4th: Glisan	3rd: Market 4th: Lincoln	Base repair and paving on areas of 3rd and 4th damaged by bus loads.  Preservation of arterial, transit, bicycle.			\$500,000			
Portland/ TriMet	SW Yamhill & SW Morrison brick intersections	intersection	-	Replacement of brick intersections on SW Yamhill & SW Morrison			\$1,000,000			
Clackamas County	Sunnyside Road	82nd Ave	I-205	Paving and Replacement of Traffic Signal Video Detection System	\$1,802,000		\$900,000			
Happy Valley	Street Maintenance and Reconstructions	Various	-	sists of a combination of resurfacing, slurry seal, crack sealing and chip sealing these minor arterial. \$3,542,000						
Lake Oswego	Royce	Bryant	Westview	The project will dig out, grind and replace 2" of the entire asphalt surface	\$428,000	\$298,000				
Lake Oswego	McNary	Kerr	Kerr	The project will dig out, grind and replace 2" of the entire asphalt surface	\$416,000	\$416,000				
Milwaukie	Linwood Ave Re-surfacing	Monroe St.	Railroad Ave.	2" grind & overlay	\$579,775		\$160,000			
Milwaukie	River Road Re-surfacing	McLoughlin	City Limit	2" grind & overlay	\$140,000		\$140,000			
West Linn	Salamo Road	Barrington Dr	Rosemont	Grind 2" and overlay	\$1,004,000	\$900,000				
Gladstone	Valley Views/Los Verdes, Dartmouth, and Arlington Streets	Jennings	Crownview	Applicant proposes "butt" grinds at important road intersections, asphaltic tack coat, pavement fabric and a maximum 2" overlay at the center of the road tapering to near 0" approximately 6" from curbs along the roadway.  Right-of-way and easements are not needed.	\$486,535		\$486,535			
Wilsonville	Barber Street Improvements	Boones Ferry Road	Boberg Road	Street preservation and upgrade with associated utility work.	\$1,000,000		\$900,000			
Beaverton	Hall Blvd Overlay	Hart Rd	Ridgecrest Dr	Overlay	\$785,000	\$785,000				
Cornelius	Arterial/Collector Overlay & Sealing	Holladay St., 10th Ave.	6 Blocks, 9 Blocks,	Sealing & repair of cracks in concrete paved industrial collector Holladay St. in preparation for State Cert. Industrial Site; Grind & overlay of asphalt	\$350,000		\$350,000			
Sherwood	Sherwood Boulevard Overlay	3rd St	12th St	Grind & Overlay 2,740 LF of Collector status road	\$278,000	\$278,000				

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Sherwood	Pine Street Overlay	Division St	Sunset Blvd	Paving \$1,850,000 \$388,170						
Tigard	Bonita Road	I-5 Bridge	Railroad	2" Pavement Overlay	\$156,000	\$156,000				
Tigard	Durham Road	Upper Boones Ferry	72nd	2" Pavement Overlay	\$372,000	\$372,000				
Tigard	72nd Avenue	Upper Boones Ferry	Landmark	2" Pavement Overlay	\$402,000		\$402,000			
Tigard	72nd Avenue	Landmark	Fir	2" Pavement Overlay	\$186,000		\$186,000			
Wash. Co.	Group A Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$1,000,000	\$1,000,000				
Wash. Co.	Group E Overlays	n/a	n/a	Various Street Overlays and associated ADA Upgrades	\$1,000,000	\$1,000,000				
				Street Preservation and Reconstruction Subtotal:		\$10,455,000	\$5,844,705			
				% of Total Funds		28%	15%			
Street Modern	nization & Capacity									
Portland	North Going Rail Overcrossing	bridge	-	Bridging funding gap to ensure completion	\$4,300,000	\$500,000				
Portland	82nd Avenue and Columbia	at intersection	-	Bridging Funding gap		\$200,000		Criteria sent 2/25.		
Portland	So Auditorium Lighting Phase I	SW Naito to SW 4th	SW Clay to SW Arthur	Replace foundation, poles, and lighting fixtures to a maintainable status.  Install conduit and power wire to a standard depth.	\$3,900,000	\$3,900,000		Criteria sent 2/25.		
Portland	Leadbetter Overcrossing	bridge	-	Adding rail crossing improvements at grade crossing	\$11,500,000		\$350,000			
Gresham	Hogan Road	Glisan	Stark	Widen Hogan Road to city standards providing 4 travel lanes, 1 center left turn lane, bicycle lanes and sidewalks.	\$2,400,000	\$2,400,000				
Oregon City	Molalla Avenue/Warner Milne/Beavercreek intersection	Warner Milne	Beavercreek	realign traffic intersection, update signal timing, add sidewalks	\$2,956,000		\$900,000			
Tigard	Citywide 'Small Fix' Congestion Solutions	-	-	Small-dollar site-specific adjustments and minor construction projects that would improve traffic flow and safety. This includes Flashing Yellow Arrow Signals, signal phasing changes, striping changes, and small-scale geometric adjustments that would improve traffic flow and safety.	\$160,000	\$80,000	\$80,000 City verified PE\$.			
Wash. Co.	Interior Illuminated Sign Replace.	n/a	n/a	Replaces existing illuminated signs with diamond grade sheeting, which subsequently reduces electrical costs.						
				Street Modernization & Capacity Subtotal:		\$7,230,000	\$1,330,000			
				% of Total Funds		19%	4%			

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Signals & ITS										
Beaverton	Farmington Rd Adaptive Signal Control Installation	Hocken Ave	Griffith Dr	Upgrade existing traffic signal control software to SCATS adaptive signal control system at 7 signalized intersections. The existing Model 170 signal controllers will be upgraded to 2070L signal controllers. In addition to these upgrades, the signalized intersections will be connected to the regional centralized signal control system for real-time remote monitoring and signal timing adjustments capabilities.	\$804,000	\$804,000				
Beaverton	Cedar Hills Blvd Signal Re-timing	Millikan Way	Walker Rd	collect new traffic volumes and update the signal timing along the corridor	\$56,000		\$56,000			
Lake Oswego	Misc. Signal Upgrades	various	-	improve signal timing at six intersections to reduce delay	\$98,000	\$98,000				
Wash. Co.	ITS Project - Scholl's Ferry Rd	Murray Blvd	Hall Blvd	Install fiber, cameras, and other ITS equipment to increase efficiency, reduce congestion, and improve emergency response.	\$881,000		\$881,000			
Wash. Co.	Flashing Yellow Arrows	n/a	n/a	Install new signal head and hardware at various intersections to improve efficiency and reduce traffic delays.	\$500,000		\$500,000			
Wash. Co.	School Zone Flasher Units	n/a	n/a	Install solar powered School Zone Flasher Units at various locations. Improves efficiency and safety.	\$250,000	\$250,000				
Wash. Co.	Traffic Signal Retiming	n/a	n/a	Retain consultants to evaluate signal timing, and make necessary changes to improve traffic flow, improve congestion, and air quality.	\$600,000		\$600,000			
				Signals & ITS Subtotal:		\$1,152,000	\$2,037,000			
				% of Total Funds		3%	5%			
Sidewalks, Bi	kes & Trails									
Portland	Bicycle Blvd	citywide	-	Striping and Signage - Wayfinding	\$1,000,000		\$1,000,000			
Portland	Springwater Trail Repaving	UPRR Bridge	E City border	Repave Springwater Trail from Sellwood to City border			\$1,800,000			
Multnomah County	Halsey St, Stark St, & Troutdale Rd Sidewalks Project	Multiple locations	-	Install sidewalks in 4 locations: NE Halsey St: 238th-244th, Stark St: 257th - Troutdale Rd., Troutdale Rd: S.E.18th-19th St. (eastside) and Stark St. to Beaver Creek (eastside).	\$1,000,000		\$1,000,000			
Milwaukie	Jackson Street sidewalks	Main Street	21st Avenue	Reconstruction of sidewalk/streetscape including street trees, utility undergrounding, street furniture, bulbouts, etc.	\$765,000		\$725,000			
Beaverton	Laurelwood Ave Sidewalk	Beaverton- Hillsdale Hwy	Birchwood Rd	Install sidewalk to provide safe pedestrian access to transit route and improve		Criteria sent 2/24.				
Beaverton	87th Ave Sidewalk	Birchwood Rd	Canyon Rd	Install sidewalk to provide safe pedestrian access to transit route, and improve livability of the neighborhood. Construct sidewalks and ADA ramps			Criteria sent 2/24.			
Cornelius	Hwy. 8/Adair Blvd.	10th Ave	19th Ave	Sidewalk repair and street furniture \$50,000 \$50,000						
Forest Grove	Town Center Ped Improvements	-	-	curb, sidewalks, lighting and multi-use amenities	curb, sidewalks, lighting and multi-use amenities \$500,000 \$500					

Jurisdiction	Project Name	From	То	Brief Description	Project Cost Estimate	Phase I Stimulus Request	Draft Phase II Stimulus Request	Bike or Pedestrian elements	Transit elements	Motor vehicle elements
Wash. Co.	143rd Ave. Pedestrian Path	Windermere Apts	W. Union Rd.	Construct 2400' of new asphalt path to improve pedestrian access to two schools. \$300,000						
Wash. Co.	Walker Road Pedestrian Bridge	173rd Ave	Cambray St.	Install pedestrian bridge across creek to connect existing sidewalks on both sides of project.	\$200,000		\$200,000	\$200,000		
				Sidewalks, Bikes & Trails Subtotal:		\$550,000	\$5,674,000			
				% of Total Funds		1%	15%			
Transit & TOD	)									
Portland	Eastside Streetcar signals and ramps	various	-	2 signal upgrades, ADA curb ramps at intersections for Eastside Streetcar			\$356,832			
Portland/ TriMet	SW Columbia & SW Jefferson Bus Pads	SW Naito	SW 14th	Concrete Bus Pads on SW Columbia and SW Jefferson			\$500,000			
Portland/ TriMet	Lake Oswego Shoreline Trestles	trestles	-	Trestle repair to maintain level of service			\$200,000			
Lake Oswego	Willamette Shore Trolley	LO trestle	-	Trestle repair on Lake Oswego Trolley line	\$100,000	\$100,000				
Hillsboro	Intermodal Transit Facility or overlay of arterials and collectors (overlay project becomes top priority is intermodal facility can't be obligated)	Baseline	7th & 8th	Construct parking structure with shared park & ride and transit oriented development	\$14,500,000	\$2,346,000				
Tualatin	95th Ave. RR Xing	at crossing	-	Install raised median and associated improvements	\$74,000	\$74,000				
Tualatin	Teton Ave. RR Xing	at crossing	-	Install 4 Quad RR Xing gates	\$615,000	\$615,000				
				Transit & TOD Subtotal:		\$3,135,000	\$1,056,832			
				% of Total Funds 8% 3%						
				Region Subtotal \$22,522,000			\$15,942,537			
				Region 100% Target \$38,000,000			\$38,000,000			
	% of Target 59% 42%									

Jurisdiction	Project Name	From	То	Brief Description	Project Type	Project Cost Estimate	Stimulus Request
SMART	Wilsonville SMART Fleet Services Facility			Design and construct a state of the art fleet facility/ operations center. This 20,000 square foot facility will incorporate costeffective, environmentally sensitive site work and construction, with "Green"/LEED-certification for the facility as the ultimate goal. This facility will be the operating center for SMART dispatch, training, field operations and fleet maintenance. This infrastructure is vital for SMART to meet current and future service demand. The facility will provide adequate access and accommodate parking for SMART's growing fleet of buses as well as a bus wash facility and an energy efficient fueling system.	Transit	\$11,800,000	\$475,000
SMART	SMART Bus Replacement s			Replace ten heavy duty buses that are between 10 and 20 years old and still in operation. These inefficient coaches will be replaced with energy efficient modern coaches	Transit	\$3,500,000	\$0
SMART	SMART Offices/Admin istration Facility (Customer Service Center)			The SMART Offices/Customer Service Center project is a 5000 square foot facility, designed to incorporate energy saving technologies and transit amenities. Smart's customer service center will be on the ground floor and Smart offices above. This center will allow SMART to provide on- site personnel to enhance security for the transit center and park and ride.	Transit	\$2,900,000	\$0

MTIP Description
Rail Improvements

Bus Improvements

2

I-205/Portland Mall

3

	Fund Source	I-205/Portland Mail	J		Estimated		Obligated in 180	Environmental		In Budget, Forecast	Notes
PM/Lead	<u>5307</u> 10,874,272	Fund Source 5309 1,125,728	MTIP by Function 1,2	Project Description  Preventive Maintenance Section 5307	Cost \$12,000,000	Other staff	days Yes	Status N/A	<u>Jobs</u>	or Grant	\$6m is contracted.
-											pom is contracted.
Goodling	\$2,565,000	1	1	Willow Creek Pocket Track	\$2,565,000	Kirse	Yes	CE	51	Debt beginning in FY '11	
Goodling	\$1,659,891		1	Rail Track and Structure repairs	\$1,659,891	Kirse, Kindig	Yes	CE	33	Yes (\$300k in FY'09, \$1.2m in FY10)	
Goodling	\$1,000,000	1	1	Switch Heaters/Covers (Existing Alignments)	\$1,000,000	Kirse, Kindig	Yes	CE	20	no	
Goodling	\$500,000	1	1	Pedestrian Crossing Improvements	\$500,000	Lomax	Yes	CE	10	no	
Goodling	\$1,000,000	1	1	Bike Stations	\$1,000,000	Maher, Hesse	Yes	CE	20	no	
Goodling	\$45,000	ı	1	Replacement of extg. Lockers \$275k STC Bike Cage (Pilot Program) \$125k BTC, or Orenco, Bike Cage (Pilot) \$350k Remainder of Bike Program \$250k Tactile Paver Replacement (5 stas.)	\$45,000	McNatt	Yes	CE	1	no	
Goodling	\$270,000	1	1	Repainting eastside light rail stations	\$270,000	McNatt	Yes	CE	5	Yes (\$20k/yr.	
Goodling	\$580,000		1	WB Gresham Central Sta. Access Control &	\$580,000	McNatt	Yes	DCE	12	beginning in FY '10) yes (FY '09)	
-			1	Illumination							
Goodling	\$160,000			EB Gresham Central platfrom Access Control Project	\$160,000	McNatt	Yes	DCE	3	no	
Munro	\$750,000		2	Elmonica Maint. Facility Roof Replacement	\$750,000			CE	15	yes, FY13	
Munro/Preston	\$435,000	1	2	Underground Storage Tanks @ Center garage	\$435,000				9	Yes \$435K FY10	
Munro	\$220,000	1	2	Center St. bus yard concrete replacement	\$220,000			CE	4	Yes - FY10 - FY13	
Munro	\$360,000	1	2	Merlo bus yard concrete replacement	\$360,000			CE	7	Yes - FY10 - FY11	
Munro	\$75,000	1	2	Tigard Transit Center - storm piping repair	\$75,000			CE	2	Yes - FY10 - FY13	
Munro	\$50,000	)	2	IT Server Room climate control system	\$50,000	Fouts			1	yes, \$50K FY10	
Sosnovske	\$13,500,000	)	2	Merlo Fuel/Wash & Lift Buildings	\$13,500,000	Dorn	Yes	CE	270	Debt beginning in FY	
Fandrich	\$500,000	)	1	Willamette Shore Line trestle repairs	\$500,000	TM Oh)	> 180	CE	10	no	Additional \$200k being sought by
O'Conner	\$2,500,000	)	2	LIFT BDS system replacement	\$2,500,000	- TM Share) Maercklein		CE		Debt beginning in FY	C.O.P. & \$100k by Lake Oswego
Swiecick	\$250,000	1	3	Cross mall transit tracker	\$250,000	Hastings	Yes	CE	5	'10 no (SC Grant	
Lostra	\$1,200,000	1	3	South mall light rail terminus alternative energy	\$1,200,000	Hastings	Yes	CE	24	Pressure) SC Grant	Applying for add. \$1.7 thru D.O.E. Grant;
Lostra	\$240,000	1	3	project Portland Mall Customer Amenities	\$240,000	Hastings	Yes	DCE	5	SC Grant	Proposed Partnership w/PGE
Lostra	\$1,300,000	1	3	Bus priority street maintenance improvements	\$1,300,000		Yes	CE	26	no	Additional \$650k being sought by
	\$650,000	)		(3rd/4th & Jeff./Col.)	\$650,000	- TM Share)	Yes		13		PDOT.
Lostra	\$2,000,000 \$1,000,000		3	Morrison/Yamhill Intersection Repairs	\$2,000,000 \$1,000,000	TM Chara)	Yes Yes	CE	40 20	no	Additional \$1m being sought by PDOT.
Fandrich	\$600,000		3	SE Transit Police Precinct @ Clackamas TC	\$600,000	Lomax	Yes	CE	12	no	
Goodling	\$310,000	)	3	Garage Ice cap installation on the I-205 Catenary	\$310,000	Oldfield, Kindig	Yes	CE	6	yes (FY '10 & 11)	
Goodling	\$554,000	)	3	System Lighting along the multi-use path adjacent to	\$554,000	Oldfield	Yes	CE	11	SC Grant	Additional \$2m being sought by ODOT.
Goodling	\$1,544,000	)	3	the I-205 LRT Safety fencing	\$1,544,000	Oldfield	Yes	CE	31	SC Grant	
Goodling	\$200,000		3	Switch Heaters/Covers (I-205 Alignment)	\$200,000	Oldfield, Kirse	Yes	CE	4	no	
Swiecick	\$125,000		3	Transit Tracker on I-205	\$125,000	Hastings	Yes	CE	3	no (SC Grant	
Lowe	\$250,000		1	Wayside Horns	\$250,000					Pressure)	Expecting Participation by Partner
\$44,592,891	\$43,467,163			Subtotal (TM Funds)	\$44,792,891						Agencies.
\$ <del>11</del> ,002,001	¥ .5,701 ,100	¥1,120,120		, ,							
				Subtotal Project Costs	\$46,742,891						
				Beaverton pocket Track - Powered Switches (3)	\$3,000,000		yes	CE	60	no	

PM/Lead Elmore	Fund Source 5307	Fund Source 5309 MTIP by Function	Project Description Bus replacement LIFT vehicles Subtotal	Estimated Cost \$5,000,000 \$1,000,000 \$9,000,000	Other staff	Obliqated in 180 days yes yes	Environmental Status CE CE	<u>Jobs</u>	In Budget, Forecast or Grant Debt beginning in FY '11 yes, FY'10 - 13	<u>Notes</u>	
			South Cooridor Streetcar Loop	\$75,000,000 \$75,000,000 <b>\$150,000,000</b>		yes yes	EIS/ROD complete		advances FY 2010 request of \$80m and	l FY 2011 of \$25.4m	

From: Mark Turpel

To: NEWVINE Carole; ORLANDO Marina J; "Elson.Wayne@epamail.epa.gov"; Jazmin.Casas@dot.gov; "NORDBERG

Dave"; "LehtoA@tri-met.org"; "Ned <FTA> Conroy"

Cc: <u>Ted Leybold</u>; <u>Joshua Naramore</u>

Subject: AQ - Portland Metro - Conformity I-5 Aux lanes, Hogan Road/242nd

**Date:** Tuesday, February 24, 2009 4:33:00 PM

### Request

This is a request for concurrence that two projects that have already been conformed, still meet standards even though they are being proposed for earlier construction.

We have a TPAC meeting at 9:30am, Friday, February 27 where these, as well as the earlier projects sent to you via separate, earlier emails, will be discussed and considered for recommendations.

We recognize this is a quick turnaround request. <u>Comments would be appreciated by close of business Thursday, February 26.</u>

### **Background**

Two additional projects are proposed as part of the transportation investments portion of the federal government's Economic Stimulus package:

- Auxiliary lanes on I-5 in Wilsonville; and,
- Hogan Road/242 Avenue in Gresham/Multnomah County.

Each of these was included in the 2035 RTP Financially Constrained System/2008-2011 MTIP. However, these projects are now being proposed to be completed earlier than originally thought.

For the 2035 RTP and 2008-2011 MTIP, there were three years where full transportation network models were run -2005, 2017 and 2035. All other emission years were completed by interpolating either trip tables and then running the air quality model (done for year 2007), or interpolating emissions (done for 2010 and 2025).

For each of these projects, they were assumed to occur sometime within the 2008-2017 time frame.

Each of these project have been proposed to be advanced earlier – but still within the 2008-2017 time frame.

Accordingly, we conclude that these two projects are included within the existing air quality conformity – as - even if we had known that they were proposed to be initiated in 2009, we would not have changed any of our analysis.

If you would like additional information or have questions, please do not hesitate to contact me.

Thanks!!

Mark Turpel
Principal Planner | Planning and Development

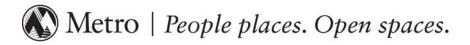
METRO
600 NE Grand Ave
Portland OR 97232
503-797-1734
503-797-1930 (fax)
mark.turpel@oregonmetro.gov

Project Name	From	То	Brief Description	Project Cost Estimate	Stimulus Request	In RTP? *	Proposed Findings of Regional Air Quality Conformity Status (Exempt, Exempt from Reg Emissions
ОДОТ						•	-
I-205 Bicycle Path Improvements and Illumination	Clackamas Town Center	SE Woodstock/92nd	Improve and illuminate bicycle path	\$2,500,000	\$2,500,000		exempt
I-405 Preservation			Adds ramp pavement overlay, sign upgrades, and illumination to preservation project.		\$3,700,000		exempt
US30: Yeon Street Preservation			Adds upgrades to substandard signs, outdated conduit, and damaged signal poles to preservation project		\$200,000		exempt
OR99E: MLK/Grand project			Paves streets used as detour route		\$1,250,000		exempt
OR99E (Oregon City)	Dunes	10th Avenue	Adds pavement preservation to existing project		\$150,000		Already conformed in existing TIP, new elements exempt
Hwy 213 Preservation	I-205	Redland Rd.	Completes preservation for this section		\$2,500,000		exempt
OR 8: Adair St. (Cornelius)	19th	14th	Adds pavement grind and inlay to existing boulevard project		\$1,800,000		exempt
US 26: Cable Barrier and Intersection paving	North Plains	185th Ave.	Pavement preservation, cable barriers and intersection paving.		\$2,900,000		exempt
			Subtotal:		\$15,000,000		

1

3/3/2009

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



February 17, 2009

Ms. Gail Achterman, Chair Oregon Transportation Commission Transportation Bldg. Room 135 355 Capitol Street N.E. Salem, OR 97301-3871

#### Dear Gail:

I am writing on behalf of the Portland metropolitan region's Joint Policy Advisory Committee on Transportation (JPACT) to share concerns and suggestions regarding the use and allocation of federal economic stimulus funds for transportation. The federal economic stimulus legislation passed by Congress last week provides our state an unprecedented opportunity to address unmet transportation needs.

Our region is concerned that the approach the state is taking in developing a stimulus project list has focused primarily on getting projects completed quickly, rather than on making the best investments possible and ensuring an equitable distribution of funds. Given the ambitious obligation timeframes Congress is considering, your Commission and our metropolitan region face many of the same challenges in managing the allocation and obligation of these funds in a timely matter. However, the entire list that the Oregon Department of Transportation (ODOT) has developed appears to be unnecessarily focused on delivering projects within the shortest timeframes which will likely only apply to half of federal stimulus funds for transportation. This necessarily limits the types of projects as well as deliberation as to what would be the most effective set of investments.

We submit to you the following principles and suggestions as you consider adopting a list of stimulus projects:

- 1. Coordinate with local governments to maximize the impact of state and local funds. Spending additional time consulting with local government leaders could lead to a set of jointly funded and contracted projects that address key transportation needs, synchronize highway and transit investments, and create more significant economic benefits.
- 2. **Be flexible in developing and adopting the state's project list given possibility of longer obligation timeframes.** State and local project lists should be re-examined, now that we know Congress has adopted longer obligation timeframes for a significant portion of transportation stimulus funds. As we understand the project list ODOT is recommending, all of the projects can be obligated this spring. Assuming at least half of federal funds may not need to be obligated until July 2010, we recommend that you not adopt a list that reflects 100 percent of federal funding at this time. Instead, we suggest that you adopt a project list that represents over 50 percent of the state's stimulus funds, ensuring that the state can meet the immediate obligation deadline, but allow for flexibility in considering a broader range of projects that could be obligated within the longer timeframe.

- 3. Consider focusing investments in metropolitan areas where the economic impacts will be greatest. Metropolitan areas, and the Portland region in particular, are the population and economic centers of our state. The current focus within ODOT's project list on pavement preservation would result in only about 10 percent of the state's stimulus funds flowing to the Portland Metropolitan Region. A more equitable distribution of stimulus funds than is currently being considered by ODOT would yield significant economic rewards. Historically, about 38 percent of state modernization funds have been invested in our region. Spending stimulus funds to upgrade one of the many neglected state-owned district highways would have an enormous short and long-term economic impact that cannot be achieved with many of the pavement preservation projects being considered.
- 4. Ensure that investments the state makes with stimulus funds have significant short and long term economic impacts. The intent of Congress in enacting this historic economic stimulus measure is the creation of jobs and the recovery of our depressed economy. We urge you to use both short and long-term economic impacts as a filter in choosing projects. In four or five years, we should be able to look back on the investments we choose to make now and argue that they were the right kind of investments, that they did more than produce jobs, but helped create economic growth and supported our communities, including improvements to enhance access to freight terminals and industrial areas.
- 5. Maximize the use of stimulus funds to leverage other federal, state, and local funding. We are working with our local partners to identify areas where stimulus funds can leverage existing funding, stretching these dollars as far as possible. In addition, we are exploring was use of transportation funds in conjunction with other stimulus funds (e.g. water, transit, energy efficiency funding) to create projects that are more meaningful than projects funded solely within their own funding silos.

I understand that the opportunity presented by the enactment of federal stimulus legislation carries with it significant challenges in meeting strict deadlines under sometimes onerous federal rules. However, I urge you to do what you can to ensure that we use this opportunity to its full potential and do not lose the opportunity to be thoughtful and innovative in order to be quick. The jurisdictions of the Portland Metropolitan Region are eager to work with your Commission to develop a state stimulus project list that can meet these principles.

Sincerely,

Rex Bukholder JPACT Chair

CC: JPACT OTC

**Director Matt Garrett** 

# **Projects Proposed for Transportation Enhancement Portion of ARRA Funds**

REG	APPLICANT	PROJECT	STIM. \$\$ Recommended	COMMENTS
2	Astoria (Port)	Port of Astoria Pedestrian Access Paths (Path Lighting)	\$400,000	Add to project #14275 now in PE. Expand scope to include lighting for the path.  Target bid date: Sept. 2009
2	Eugene	Eugene Train Depot (Unit 2) (Sidewalk & Lighting elements)	\$180,000	Add to project #15223 now in PE. Restore elements cut from project for lack of funds. Scheduled bid date: Apr. 23, 2009
2	Eugene	Delta Ponds Path: Goodpasture Island - Robin Hood Lane	\$2,225,000	Add to project #15222 now in PE. Restore bridge and trail elements that will be cut if funds not secured. Target bid date: June 2009.
1	Forest Grove	Forest Grove Ped Improvements	\$1,100,000	Add to project #12481 now in construction. Expand construction to include blocks of sidewalk that were cut from the contract due to lack of funds.
1	Gresham	Gresham-Fairview Trail: Burnside - Springwater (with bridge @ Powell Blvd)	\$550,000	Add to project #15447 now in PE. Restore bridge and trail elements that are being cut due to shortage of funds. Target bid date: October 2009.
5	Mt Vernon	US26/Main St Sidewalk & Streetscape	\$75,000	Add to project #14281, now starting construction.  Expand scope to install luminaires that were cut from the contract due to lack of funds.
2	ODOT Area 4 (Reg. 2) & Philomath	Hwy 20/34: 19th St - 12th St (Median Landscaping)	\$80,000	Design and construct median landscaping that was cut from Philomath Couplet project due to lack of funds. Target bid date: June 2009
3	ODOT Region 3	Douglas County Fairgrounds-Shady Br Shared-Use Path	\$500,000	Add to project #13255, active construction contract. Expand to construct south section of the trail that was cut from contract due to lack of funds.
4	ODOT Region 4 & Deschutes Nat'l Forest	US97: Lava Butte - S Century Drive (Wildlife Crossing Enhancements)	\$1,400,000	Add to project #13981. Scheduled bid date: May 7. Restore fencing and wildlife crossing enhancements due to be cut from contract if funds not secured.
2	Salem	Union Street RR Brdg: Wallace Rd - Water St (Phase 2 Lead Paint Abatement)	\$3,500,000	Add to project #11085, active construction contract.  Expand scope to include lead paint abatement and repainting upper portions of the bridge.
		•	\$ 10,010,000	TOTAL

	ALTERNATE PROJECT			
1	Portland Mgmt/Finance		\$3,000,000	Add to project #15484 now in PE. Increase scope to include replacing entire roof area.
		(Roof Repair & Replacement)		Target bid date: Fall 2009.

