

Oregon Department of Transportation Congestion Pricing Pilot Program Report November 30, 2010

Background

Section 3 of the Jobs and Transportation Act (JTA, chapter 865, 2009 Oregon Laws (see Attachment 1)) requires the Department of Transportation (ODOT) to report each year by December 1 on its efforts to develop and implement one or more congestion pricing pilot programs in the Portland metropolitan area. This document constitutes that report.

The Oregon Legislature has provided ODOT with broad authority over the use of highway tolling, including congestion pricing. In response, the Oregon Transportation Commission (OTC) adopted a variety of strategies in the 2006 *Oregon Transportation Plan (OTP)* to support consideration of tolling or pricing as a means of improving the capacity and operational efficiency of the state transportation system.

Pursuant to those strategies, the OTC has been developing a more comprehensive set of tolling policies intended to define where tolling or pricing applications may be best suited to Oregon and to establish analytical procedures intended to demonstrate the effects, positive and negative, of any particular proposal. This work reflects worldwide experience in developing and implementing congestion pricing proposals. Some of the knowledge obtained from these activities is being applied to the implementation of Section 3.

Following the enactment of the JTA in July 2009, ODOT formed the Congestion Pricing Advisory Committee (CPAC) (see Attachment 2 for membership list) to solicit, evaluate and recommend one or more congestion pricing pilot proposals in the Portland area. CPAC membership includes those government entities identified by Section 3 as key stakeholders: the City of Portland, Multnomah County, Clackamas County and Metro. CPAC met for the first time in October 2009.

Since that time, CPAC has held several meetings and performed the following tasks:

- Held a work session with an international expert on congestion pricing.
- Adopted a work plan and decision making process for solicitation, evaluation and selection pilot programs.
- Formed a Technical Advisory Committee (TAC).
- Approved TAC recommendation to analyze three potential pilot programs.
- Received a briefing from the consultant team that conducted the analysis of the potential pilots, discussed the results, and directed the consultants to complete remaining analysis and issue a final report by early 2011.
- Agreed to meet in February 2011 to review the final report and make a decision about which projects should go out for public comment and proceed to implementation.

2010 Actions

1. Development of pilot project proposals

Project proposals were screened by their ability to meet the following minimum selection criteria:

- One or more local jurisdictions must sponsor the proposal for further study and be willing to take an active role in responding to media inquiries about the proposal.
- The other local jurisdictions affected by the proposal must support its advancement for further study.
- The proposal should be feasible to begin implementation as a pilot by September 2012.
- The proposal should reflect CPAC direction at the December 2009 meeting that the Technical Advisory Committee (TAC) pursues proposals with a high likelihood of success.

Project proposals must also comply with state and federal requirements, including: a) the Jobs and Transportation Act, b) federal requirements for tolling federal-aid highways, c) National Environmental Policy Act of 1969 (NEPA) regulations and d) federal Executive Orders on Environmental Justice (EJ).

Three congestion pricing pilot proposals, from an initial list of ten, are under consideration:

- Cornelius Pass Road Single Point, Time of Day Toll
- OR 217 On-ramp Tolls
- City of Portland Parking Management Proposals

The analysis of the proposals focuses on six components, which in combination, are expected to determine their relative performance and public acceptance. These are:

- Degree of public support for stated policy objectives
- Proposal effectiveness at achieving policy objectives
- Identification of affected areas and stakeholders
- Quantification of direct highway user effects
- Quantification of overall social benefits/costs
- Degree of public support for proposals

2. Cornelius Pass Road – Proposal and Preliminary Analytical Findings

Cornelius Pass Road is a county owned facility that connects US 30 with US 26 and Washington County. The pricing proposal put forth by Multnomah County is to apply a single point toll near US 30. The proposal assumes all electronic collection and enforcement. Tolls would vary by time of day according to peak and off-peak hours. The sponsors were Multnomah and Washington counties.

The purpose for the proposal was: a) using toll revenues to help fund identified safety improvements along the corridor and b) increasing travel reliability.

The portion of Cornelius Pass Road considered for the pilot (the road goes south beyond US 26 in Washington County) is a two-lane rural highway. Traffic volumes over the 25 year analysis

period (2010 -2035) range from 10,000 to 16,000 vehicles per day. 15% of these are trucks, reflective of the fact that Cornelius Pass Road is a designated hazardous material route for commodities not permitted through the Vista Ridge Tunnel on US 26.

Analyzing the effects of tolls on use of the facility was performed using Metro's transportation demand model which has the capacity to alter the cost of using a facility as well as changes in travel time. The analysis indicated that introducing tolls would dramatically reduce use of Cornelius Pass Road. Even a \$1 one-way toll (the lowest considered) would reduce auto traffic by 50%; a \$4 toll would result in a six fold reduction in use. By not being required to pay a toll, as per Section 3, truck traffic would increase slightly.

Most of the reduction in traffic volumes diverts to two parallel facilities – Logie Trail Road and Rocky Point Road. At \$1.50, 2600 cars per day divert to these roads. At \$2.00, 4800 cars divert, 4000 of which would travel on Logie Trail Road, a narrow, windy road with an estimated carrying capacity between 3000 – 5000 vehicles per day.

The high diversion rates would negatively affect the revenue generating capacity of the proposal. The optimum revenue generating toll (\$2.00) would be applied against the remaining 2400 autos and generate \$730,000 in annual toll revenue. The estimated 2000 trucks would pay no toll.

Preliminary estimates place a \$2.3 million capital cost to install the equipment needed to record transactions and to photograph vehicles lacking the required transponder. Annual operating expenses were also assumed. These vary with traffic volume For the optimum \$2.00 toll, the resulting net payback (without borrowing costs) by 2035 was \$6.3 million; this is the amount that would be available for capital improvements to Cornelius Pass Road. It essentially takes 5 years to break even after absorbing the capital expense and incurring \$155,000/year in operating cost with an overall revenue/cost ratio of 3.8 over the 25-year life of the pilot project. It must be noted that these are preliminary estimates which may suffer from a lack of comparable electronic tolling operations nationwide with such low traffic volumes.

A key result of the proposal is the amount of traffic diversion. First, overall vehicle-miles traveled (VMT) and vehicle-hours traveled (VHT) can be expected to increase due to out-of-direction travel, as would emissions. Second, the heavy traffic diversion to more narrow and winding alternative routes could result in an overall increase in traffic safety problems, even if improvements are made to Cornelius Pass Road. Further analysis on these issues is on-going.

A public opinion poll was conducted in the area most affected by the proposal, including a portion of Washington State near the Lewis and Clark Bridge at Longview/Kelso. Several findings seem relevant to gauging public acceptance of the proposal. One, the majority (57%) of users of Cornelius Pass Road considers it to be safe and, as a result, may not find the purpose for the proposal particularly compelling. Two, low percentages of motorists would support the application of tolls – even at low toll levels. 27% would support a \$1.00 toll and 18% would support a \$3.00 toll with 66% and 74% opposed respectively. Those supporting a toll do so to: a) maintain and improve the roadway (44%), b) improve safety and reduce accidents (38%) and c) avoid a general tax – the toll is viewed as a user fee (19%). Opponents a) do not believe it would help (29%), b) are already paying road taxes and fees (24%), c) are disgruntled over government

waste (20%), and d) think introducing tolls in the midst of a recession to be a bad idea (18%). Three, motorists generally oppose trucks not paying any toll (62% “strongly” and 12% “somewhat”) compared to only 11% and 7% “strongly” and “somewhat” in support.

3. OR 217 On-ramp Tolling – Proposal and Preliminary Findings

OR 217 is a limited access freeway connecting US 26 to I-5 in Tigard. When initially constructed, OR 217 was four lanes with at-grade intersections. These were gradually replaced with interchanges. However, the lower spacing standards at the time has resulted in some interchanges being too close together for efficient merging. As a result undue congestion and safety problems exist on portions of the facility.

The proposal would initially apply electronically collected tolls, varied by time-of-day, at three freeway interchanges (Wilshire, Walker and Denny) with two more added later (OR 99W and 72nd avenue). The proposal is intended to improve traffic safety and freeway reliability by reducing weaving conflicts as fewer motorists use these ramps. Additionally, shorter trips more appropriate to parallel arterials would be reduced on OR 217. The sponsors are Washington County and Metro.

Analyzing the effects of applying tolls to the ramps was conducted through use of Metro’s travel demand model. Toll levels are shown to have a dramatic effect on use of the ramps; a \$2.00 toll reduces ramp volumes by 90%. This results in diversion to parallel roads though out the corridor with Walker Road and OR 99W receiving the most new traffic. Reduced use of the ramps also reduces mainline traffic volumes on OR 217 (10% at the “high” \$2.00 toll).

In spite of these effects, overall increases in traffic volumes on OR 217 over time result in failing levels of service at key weaving areas between Walker Road and Allen Boulevard, even in the early years of the pilot. Low toll levels (\$ 0.25 and 0.50) produce minimal travel benefit as opposed to as much as a 10% early year reduction in through volumes at high toll levels.

Initial modeling suggests the local street system is capable of handling diverted traffic, although this needs to be tested further. Truck traffic increases rather significantly on tolled routes as auto volumes are reduced and ramp meters are not employed in order that motorists paying the toll can enter the freeway without delay. Overall, tolling would marginally improve system efficiency by reducing VMT by 2-3% for autos and 6-8% for trucks.

Medium (\$0.50) and high (\$2.00) toll levels generate an estimated annual toll revenue of \$450,000. Given a one-time capital expense of \$4.6 million to install toll collection equipment and annual operating expenses of \$126,000/year, only the high toll scenario fully recovers all costs over the 25 year assumed life of the project. This scenario would generate a net payback of \$2.8 million.

In spite of slightly positive results in achieving stated objectives, polling did not show strong support for the proposal. Only 39% supported the idea at a \$ 0.50 toll and 36% at \$2.00. In both cases 38% “strongly” opposed the proposal with 58% and 61% overall opposed respectively. For

people opposed to tolling, 66% remained opposed even if tolling was “the only way to fund improvements on OR 217”.

Supporters cited the user fee nature of the proposal (51%), the need to maintain and improve roads (33%) and reducing traffic congestion (27%) as reasons. Opponents thought it would not help (32%), the recession made it a bad time to levy tolls (22%), were already paying taxes for roads (19%) and did not trust government (19%). Focus group participants living in the area echoed these concerns but also had concerns about added traffic on adjacent streets and the fairness of only tolling select ramps. Focus group participants tended to be more supportive if they were assured revenue would be used to improve local streets parallel to OR 217.

4. Portland Parking Pricing Management Proposals

The City of Portland serves a trade-dependent local economy that is slowed by traffic congestion on the region’s roads and highways. Some of Portland’s worst traffic occurs during major sporting and entertainment events and in the city’s densest neighborhoods. Better parking management may be one way to reduce traffic congestion on local roads and state highways.

ODOT contractors are providing research to inform parking management in three areas in Portland: the Northwest District, PGE Park and the Rose Quarter. The research will be shared with stakeholders in each of the areas to help determine whether changes to parking management policies could reduce congestion and improve mobility.

Next Steps

Staff and the consultant team will complete the analysis of the two roadway proposals over the next couple months. This primarily will consist of revising preliminary estimates, looking more closely at management and financing of enforcement procedures, ascertaining which improvements could be financed with toll receipts and conducting an overall benefit/cost analysis for each proposal.

CPAC is expected to reconvene in February, 2011. The committee will review the final findings for the highway projects, the work scopes and schedules for the Portland parking proposals, and reach a determination of which projects to advance to the public outreach and implementation phases.

A TAC public outreach subcommittee will develop and implement an outreach strategy for each advanced project, including an interactive web site, open houses and attitudinal research.

CPAC also expressed interest in the efforts of the Road User Fee Task Force (RUFTF) in considering the potential of a VMT tax which possibly could expand the use of road user fees beyond the capabilities of Section 3. A VMT tax potentially could provide the essential collection infrastructure for congestion pricing strategies within an urban area at lower administrative expense than congestion pricing applications elsewhere in the country.

Attachment 1

Note: Sections 3 and 4, chapter 865, Oregon Laws 2009, provide:

Sec. 3. Congestion pricing. (1) The Department of Transportation, in cooperation with Clackamas County, Multnomah County, Washington County, the City of Portland and a metropolitan service district organized under ORS chapter 268 shall develop one or more pilot programs and implement congestion pricing in the Portland metropolitan area and study the effect congestion pricing may have on reducing traffic congestion. Pilot programs may include, but need not be limited to, time-of-day pricing with variable tolls.

(2) At least one pilot program shall be implemented no later than 36 months after the effective date of this 2009 Act [September 28, 2009].

(3) A pilot program implemented under this section may not apply to motor vehicles with a gross vehicle weight rating of 10,001 pounds or more.

(4) The department shall expend all of the funds generated by a pilot program in excess of the costs of the program in the Portland metropolitan area, to be used as allowed by section 3a, Article IX of the Oregon Constitution.

(5) No later than December 1 of each year, the department shall report to the appropriate House and Senate interim committees related to transportation and revenue on the work of the department in designing and implementing the pilot programs. [2009 c.865 §3]

Sec. 4. Section 3 of this 2009 Act is repealed on January 2, 2016. [2009 c.865 §4]

Attachment 2

CPAC members:

Jason Tell, ODOT Region 1 Manager

Lynn Peterson, Clackamas County Chair

Jeff Cogen, Multnomah County Chair*

Andy Duyck, Washington County Chair-Elect*

Sam Adams, Mayor of Portland

Kathryn Harrington, Metro Councilor for District 4*

* Indicates a CPAC member who joined the committee after the process was underway. Multnomah County was previously represented by former Chair Ted Wheeler, Washington County was previously represented by Chair Tom Brian, and Metro was previously represented by former Council President David Bragdon.