

## C4 Toll Strategy Subcommittee

Wednesday, September 20, 2023 12:00 PM – 1:30 PM Meeting Link: https://clackamascounty.zoom.us/j/88354971846?pwd=bFVIY0MzMIBLT3dJYTBDM3M2NX IjZz09

## Agenda

- <u>**RTAC Meeting Reactions and Updates (15m)</u>** RTAC Members</u>
- **RMPP Toll Options (15m)** Introducing: Jamie Stasny, ClackCo Transportation and Land Use
- Managed Lanes Discussion (10m) Introducing: Jamie Stasny, ClackCo Transportation and Land Use
- OTC Briefing (10m) Introducing: Jamie Stasny, ClackCo Transportation and Land Use OTC Meeting Materials (9/14)
- Special Subcommittee on Transportation Planning (10m) Introducing: Trent Wilson, ClackCo Government Affairs
- Schedule Moving Forward (10m) Introducing: Trent Wilson, ClackCo Government Affairs

## Attachments:

- RTAC Packet
- RTAC Managed Lane Presentation



# **Regional Toll Advisory Committee Meeting 10**

Meeting Materials: September 11, 2023

# **Table of Contents**

- 1. Meeting Agenda
- 2. Revised RTAC Work Plan
- 3. RMPP Managed Lanes Evaluation
- 4. RMPP Options: Modeled Findings and Tradeoffs Evaluation
- 5. Revised Definition and Selection Criteria for Nexus Projects
- Meeting 8 Summary and Public Comments (Received between May 18, 2023 and June 22, 2023)



# Meeting Agenda: Regional Toll Advisory Committee

Subject	RTAC Meeting #10
Meeting Date:	Monday, September 18, 2023
Setting:	In-Person, Virtual Option (Zoom and YouTube livestream)
Location:	Billy Frank Jr. Conference Center at Ecotrust (721 NW 9th Avenue in Portland)
Meeting Time:	9:00 am – 11:30 am

## OBJECTIVES

- Review and discuss Regional Mobility Pricing Project options and evaluation findings
- Share updates on process for Public Transportation Strategy and Nexus Projects

## AGENDA

Time	Торіс	Speaker
9:00 am (20 minutes)	Welcome and Workplan update	David Kim, Facilitator
		Brendan Finn, ODOT
	<ul> <li>Regional Mobility Pricing Project Options (Discussion)</li> <li>Express lane evaluation</li> </ul>	David Ungemah, Project Team
9:20 am (60 minutes)	<ul> <li>Review RMPP options</li> <li>Share evaluation findings and discuss trade offs</li> <li>Next steps for the Environmental Assessment</li> </ul>	Zoie Wesenberg, ODOT
		Mandy Putney, ODOT
10:20 am (30 minutes)	<ul> <li>Projects that Complement the Toll System (Information)         <ul> <li>Public Transportation Strategy (Tom Mills, TriMet)                 <ul> <li>Project list development process</li> <li>Organization of draft project list</li> <li>Nexus Projects Criteria                      <ul></ul></li></ul></li></ul></li></ul>	Mandy Putney, ODOT
10:50 am (10 minutes)	<b>Public comment</b> Meeting observers are welcome to provide comment to members of the RTAC. Comments or questions will not be responded to by RTAC members. Up to 2 minutes are allotted per person. If there are more people who want to speak, then the amount of time per person may be reduced.	David Kim, Facilitator



## RTAC Meeting #10, Monday, September 18, 2023

Time	Торіс	Speaker
	Oregon Toll Program Updates     Low Income Toll Program update	Garet Prior, ODOT
11:00 am	<ul><li>EMAC report-out</li><li>STRAC report-out</li></ul>	James Paulson
(25 minutes)	Toll Project updates	Commissioner Nafisa Fai
		Mandy Putney ODOT
11:25 am (5 minutes)	Reflection and next steps	Brendan Finn, ODOT
· · ·		David Kim, Facilitator
11:30 am	Adjourn	

## **MEETING MATERIALS**

- Agenda
- Revised RTAC Work Plan
- RMPP Managed Lanes Evaluation
- RMPP Options: Modeled Findings and Tradeoffs Evaluation
- Revised definition and selection criteria for nexus projects
- Meeting 8 Summary
- Presentation (available at the meeting)
- Public comments (available at the meeting)



# Regional Toll Advisory Committee (RTAC) 2023 – 2024 Work Plan

Note: The table reflects the discussion topics directly related to the questions in the charter. For all meetings, project updates and informational items will also be on the agenda. Discussion topic timing is subject to change as project schedules are refined.

## Charter Questions:

The Committee's work will center on providing feedback and recommendations to the ODOT Director on an ongoing basis consistent with the project development schedule. Feedback and recommendations will, at a minimum, address the following questions:

- What opportunities exist to accelerate the schedule for delivery of the Regional Mobility Pricing Project to reduce the implementation gap between RMPP and the I-205 Toll Project?
- What partnerships should ODOT and local jurisdictions pursue for short-term and longterm monitoring of mitigation strategies to address negative impacts from diversion to low-income workers, small businesses, neighborhoods, local roads and the broader transportation system?
- What partnerships and resources should ODOT and local public transportation providers pursue to make public transportation and multimodal travel a viable alternative to driving on I-5 and I-205?
- Does the committee agree that the proposed action for the Regional Mobility Pricing Project aligns with state goals detailed in the Oregon Highway Plan and regional goals in the 2023 Regional Transportation Plan?
- What criteria should OTC consider when allocating toll revenue within corridors, consistent with the Oregon Highway Plan and other policies?

EA: Environmental Assessment	EMAC: Equity and Mobility Advisory Committee	
FHWA: Federal Highway Administration	I-205: I-205 Toll Project	
MTIP: Metropolitan Transportation Improvem	ent Plan	
NEPA: National Environmental Policy Act	OHP: Oregon Highway Plan Toll Amendment	
OTC: Oregon Transportation Commission	PTS: Public Transportation Strategy	
RMPP: Regional Mobility Pricing Project RTP: Regional Transportation Plan		
STRAC: Statewide Toll Rulemaking Advisory Committee		

## **Revised RTAC Work Plan**

# Meeting	Topics	Oregon Toll Program Activities
10 Sept. 18, 2023	<ul> <li>RMPP options: Review options and evaluation findings and discuss tradeoffs</li> <li>Nexus projects: Review project development process</li> <li>Public Transportation Strategy: Process, list, and next steps*1</li> </ul>	<ul> <li>Public input on RMPP options</li> <li>STRAC rule development on low income toll program</li> </ul>
October 2023	No meeting	<ul> <li>STRAC rule development for rate framework and exemptions</li> <li>Begin regional modeling for RMPP Proposed Action</li> </ul>
11 Nov. 13, 2023	<ul> <li>Nexus projects: Discuss draft list and next steps</li> <li>Public Transportation Strategy: Review refined list*</li> <li>Discussion on Abernethy Bridge toll scenario trade offs</li> <li>Presentation on Implementation Plan outline</li> </ul>	<ul> <li>Inclusion of RMPP in 2023 RTP Update (adopted by end of 2023) and 2024-27 MTIP</li> <li>Publish final draft administrative rules for tolling</li> </ul>
Dec. 2023	No meeting	<ul> <li>Implementation Plan submitted to Governor</li> <li>Public comment period on draft rules</li> </ul>
January 2024	<ul> <li>Information on RMPP Proposed Action*</li> <li>Introduction to RTP and OHP goals*</li> <li>Review draft monitoring framework (drafted in April 2023)*</li> <li>Overview of final implementation plan</li> </ul>	<ul> <li>RMPP: Corridors within Area of Potential Impact</li> <li>I-205 Toll Project Supplemental EA development</li> </ul>
February 2024	No meeting	
March 2024	<ul> <li>Discussion on draft monitoring plan*</li> <li>Information on modeled traffic effects of RMPP*</li> </ul>	
April 2024	No meeting	<ul> <li>I-205 Level 2 Traffic &amp; Revenue analysis complete</li> </ul>
May 2024	<ul> <li>Information on needed mitigation for RMPP</li> <li>Recommendation on long-term monitoring plan*</li> </ul>	
June 2024	No meeting	

## Future 2024 Meeting Topics

- Discussion on toll rate scenarios for RMPP
- Information on Level 2 Traffic and Revenue analysis for RMPP
- Introduction to toll revenue allocation
- Discussion on alignment of RMPP with OHP and RTP goals
- **Recommendation** on partnerships and resources ODOT and local public transportation providers should pursue to make public transportation and multimodal travel a viable alternative to driving on I-5 and I-205
- Recommendation on alignment of RMPP with OHP and RTP goals
- Discussion on criteria for toll revenue allocation considering nexus and PTS projects
- **Recommendation** on criteria for allocation of toll revenue

<sup>&</sup>lt;sup>1</sup> Topics with asterisks allow discussion on key questions of the RTAC.

## Previous RTAC Meeting Topics

1	Meeting	Topics	Oregon Toll Program Activities
1	August 24, 2022	<ul> <li>Committee charge and purpose, review charter</li> <li>Project history, overview, and status</li> <li>Review of Oregon Highway Plan (OHP) Toll Amendment policies</li> <li>Overview of Low Income Toll Report findings</li> </ul>	<ul> <li>OHP comment period</li> <li>Low Income Toll Report submittal to OTC for approval</li> </ul>
2	October 24, 2022	<ul> <li>Discuss charter comments</li> <li>Discuss RTAC work plan</li> <li>Review process for federal approval under Value Pricing Pilot Program</li> </ul>	<ul> <li>I-205 mitigation workshops</li> <li>PTS partner discussions</li> </ul>
3	December 5, 2022	<ul> <li>Charter discussion</li> <li>Introduction to schedule for toll projects, program, and PTS*</li> <li>Introduction of Regional Mobility Pricing Project (RMPP) concept*</li> </ul>	<ul> <li>EMAC meeting on 2022-2025 work plan</li> <li>RMPP Scoping public comment period</li> <li>I-205 Mitigation follow up workshops</li> <li>Initiate PTS Screening Indicators development</li> <li>I-205 Level 2 Traffic &amp; Revenue analysis</li> </ul>
4	January 23, 2023	<ul> <li>Charter discussion</li> <li>Rate setting rulemaking process overview, update, and discussion</li> <li>Update on USDOT &amp; ODOT cooperative agreement for RMPP</li> <li>Discuss opportunities on closing implementation schedule gap between 205 Toll Project and RMPP*</li> </ul>	<ul> <li>RMPP Scoping public comments ends</li> <li>OHP submittal to OTC for adoption</li> <li>I-205 proposed mitigation for EA release finalized</li> <li>STRAC meeting on 2023 work plan</li> </ul>
5	February 27, 2023	<ul> <li>Charter adoption</li> <li>Introduction to constitutional constraints and current law for toll revenue*</li> <li>Review findings of I-205 Toll Project environmental assessment</li> <li>Recommendation on closing implementation gap between 205 Toll Project and RMPP*</li> </ul>	<ul> <li>I-205 Toll Project draft EA published for public comment</li> <li>STRAC rule development on customer interaction</li> </ul>
	March 2023	No meeting	<ul> <li>I-205 draft EA comment period</li> <li>STRAC rule development on customer interaction</li> <li>PTS screening criteria developed</li> </ul>
6	April 24, 2023	<ul> <li>Information on modeled transportation effects of toll projects with focus on I-205*</li> <li>Discussion framework for diversion mitigation monitoring *</li> </ul>	<ul> <li>I-205 draft EA comment period ends</li> <li>STRAC rule development on customer interaction</li> <li>RMPP environmental analysis</li> <li>Initial screening criteria for PTS projects</li> </ul>
7	May 22, 2023	Listening session	<ul> <li>STRAC rule development on customer interaction</li> <li>Governor direction to begin toll implementation no earlier than Jan 1, 2026</li> </ul>
8	June 26, 2023	<ul> <li>Advancing an equitable toll program</li> <li>Selection criteria for nexus projects</li> </ul>	STRAC rule development on rate setting
	July 24, 2023	Meeting cancelled	<ul> <li>UMS Finance Plan submitted to Governor's Office</li> <li>STRAC rule development on rate setting, low income toll program; joint meeting with EMAC</li> <li>EMAC and ODOT accountability workshop</li> </ul>
10	August 2023	No meeting	Analysis of RMPP options

# **Regional Mobility Pricing Project**

# **RMPP Managed Lanes Evaluation**

September 7, 2023

# **1** Introduction

This report provides supplemental information and discussion related to managed lanes for the RMPP Options Comparison Report. Managed lanes, defined broadly, are any travel lanes where vehicle access to the lane requires meeting certain conditions of occupancy, price, vehicle type, or a combination of these. For purposes of this document, managed lanes are defined as pricing one or more lanes on I-5 and/or I-205, leaving other general-purpose lanes available as unpriced. This material includes a discussion of:

- Managed lane requirements, including the challenges of converting existing lanes.
- Managed lanes implementation costs, including the cost associated with converting existing lanes or adding new managed lanes.
- A managed lanes evaluation table using criteria to compare: constructing new managed lanes, converting existing general-purpose lanes, and all-lane tolling.

# 2 Managed Lanes Requirements

## Number of Lanes Needed

On corridors with consistent, recurring congestion, managed lanes are a mechanism to provide an option to drivers for a less congested and more reliable trip. Drivers must meet the requirements for using the lane, which are usually a vehicle occupancy requirement, or a requirement to pay a toll. Managed lanes can only be implemented on facilities with <u>at least</u> 3 total lanes (one managed, two general purpose). A configuration with only one managed lane and one general-purpose lane would not function as an interstate (in terms of vehicle throughput and consistent speed of travel). Vehicles in the single general-purpose lane would be unable to maneuver around slower vehicles leading to slow and congested travel speeds as well as incursions from the general-purpose lane into the managed lane decreasing both the safety and the efficacy of the managed lane and the general-purpose lane. For these reasons, it is also highly unlikely that this type of configuration would be approved by FHWA, and there are no single managed lane/single general purpose lane facilities in the United States. In Portland, managed lane(s) would require newly constructed lanes on any facility or section of a facility with only two existing lanes of travel.



### **RMPP** Managed Lane Evaluation

Figure 1 illustrates the segments of I-5 and I-205 with only two general purpose lanes (or two general purpose lanes with an auxiliary lane). Any segments in the figure shaded red or yellow would require the construction of new capacity to accommodate a managed lane(s).

# Challenges of Converting Single Lanes

Even in areas where there is sufficient existing capacity, converting a generalpurpose lane to managed lanes operation is challenging. Tolling an existing single general-purpose lane in an area with recurring congestion would increase vehicle demand in the remaining general purpose lanes, thus increasing congestion, reducing travel speeds, and increasing greenhouse gas emissions.

With two unique exceptions discussed below, every managed lane facility in the United States is the result of a conversion of an existing HOV lane (not generalpurpose) or construction of new lanes, and not conversion of a general-purpose lane. Figure 2 summarizes current implementations of the managed lanes concept.

Managed lanes typically operate on the innermost lane of travel to minimize interactions with vehicles merging onto and exiting from the general-purpose facility. Without new direct access ramps, drivers accessing the managed lanes must weave across the general purpose

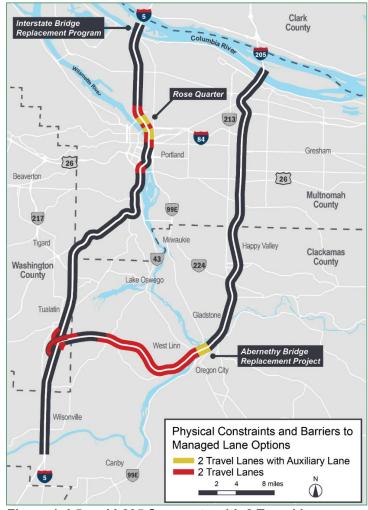
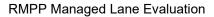


Figure 1: I-5 and I-205 Segments with 2 Travel Lanes

lanes. This degrades performance in the general-purpose lanes and increases risk of crashes. If the general-purpose lanes are congested, some of the advantage of using the managed lane is also lost as the managed lane drivers weave through congested conditions. At interchanges, construction or reconstruction is often required to maintain the managed lane's continuity and ingress and egress needs. As such, lane conversions generally require significant capital investments to reconfigure ramps and interchanges, particularly at major interchanges. In the RMPP area, this would include the I-5/I-205, I-5/I-84, I-5/OR 217 and I-5/I/405 interchanges. While auxiliary lanes might seem like a good candidate for conversion to a managed lane, auxiliary lanes serve a necessary specialized function that would need to be maintained. Since auxiliary lanes by their nature are not continuous lanes, they do not have the ability to deliver the benefits of a managed lane.





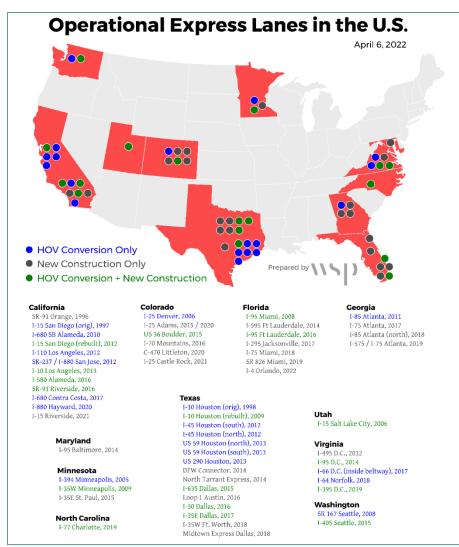


Figure 2: Managed Lanes in the US

There are no examples in the United States of successful conversions of general-purpose lanes to managed lanes of the type needed in Portland.1 Short sections of generalpurpose lanes have been converted to a pricemanaged lane in the US: I-694/I-35E in St. Paul. Minnesota and I-64 in Hampton Roads, Virginia. However, these are not applicable in the current context given that both are short "connector" links between other managed lane facilities.

In summary, conversion of any general-purpose lanes to a managed lane is not advised in the Oregon context. A managed lanes solution would require the construction of new travel lanes.

# **3 Managed Lanes Implementation Costs**

The initial capital costs for managed lanes implementation vary significantly depending on the implementation approach. Converting a lane may seem to be relatively inexpensive, considering costs associated with placement of tolling infrastructure, restriping, barrier placement, etc. However, as noted earlier, on I-5 and I-205 there are likely to be significant costs associated with reconfiguring on-ramps, off-ramps, interchanges, and accommodating ingress and egress movements between the general-purpose

<sup>&</sup>lt;sup>1</sup> <u>https://next10.org/sites/default/files/10%20High-Occupancy%20Vehicle%20Lanes.pdf</u>



**RMPP** Managed Lane Evaluation

and managed lanes. As such, converting a general-purpose lane to managed operations would require constructing infrastructure and covering the associated costs.

The major disadvantage of constructing a new priced manage lane is cost. For example, ODOT estimates that adding a third lane in each direction on I-205 between Stafford Road and OR213 (the second phase of the I-205 Toll Project) would cost about \$550 to \$600 million. The length of that project is 6.3 miles, which is approximately fifteen percent of the total centerline length of the entire RMPP study corridor. Adding a travel lane over all of I-5 and I-205 in the study area would be a multi-billion dollar undertaking, with no funding sources identified.

## 4 Managed Lanes Revenue Generation

In addition to managing congestion on I-5 and I-205, a desired outcome of the RMPP is to generate revenue for other transportation investments. While managed lanes have been shown to effectively generate revenue, few generate revenue for investment outside of maintenance and operations. Those that do, typically have at least two-managed lanes operating in each direction. Figure 3 summarizes gross revenue for managed lanes facilities of different lane configurations that were compiled by the RMPP technical team. As the figure shows, managed lanes with 2 managed lanes in each direction (2+2), or facilities with 3 managed lanes in each direction (3+3) generate significantly more revenue than facilities with only one managed lane in each direction (1+1).

Table 1 summarizes average revenues for 24 toll facilities in the US. Revenue is shown for facilities with a single priced lane in each direction (1+1), two priced lanes in each direction (2+2), segments with either two or three priced lanes in each direction (2+2/3+3) and two-lane reversible facilities (2R). As shown, a single managed lane is relatively weak at producing revenue compared to facilities with two lanes in each direction. Given existing capacity and right-of-way constraints along I-5 and I-205, only a single managed lane, not two managed lanes, could be accommodated in each direction of travel. If the intention of managed lanes is to generate revenue for transportation investment outside of paying for maintenance and operation of the managed lanes, then a single lane in each direction will not be suitable.



**RMPP** Managed Lane Evaluation

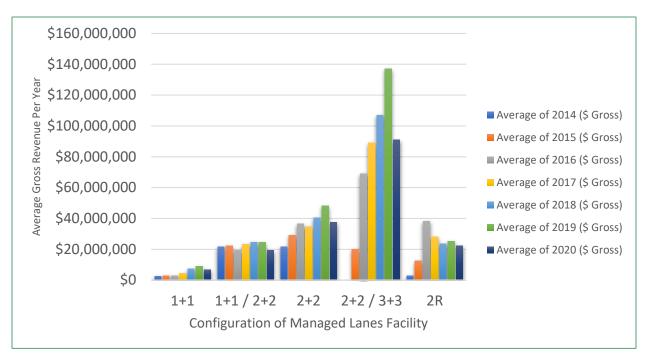


Figure 3: Average of Managed Lanes GROSS Revenue (2014 - 2020)

Facility Type	2019 Data Available for	2019 Average Revenue per Lane Mile	2020 Data Available for	2020 Average Revenue per Lane Mile
1+1	11 facilities	\$348,000	11 facilities	\$ 286,000
2+2	12 facilities	\$1,153,000	13 facilities	\$ 897,000

Table 1 - Average per lane mile annual revenue for priced lanes<sup>2</sup>

Finally, revenues from managed lanes are particularly volatile relative to traditional toll facilities that price all lanes, as usage is highly dependent on travel conditions in the general-purpose lanes. Managed lanes attract drivers when conditions on the general-purpose lanes are congested. In a sense, managed lane revenues are dependent on poor conditions in the adjacent general-purpose lanes. If improvements are made to travel conditions in the general-purpose lanes, there will be less demand for the uncongested, tolled alternative, thus lowering revenues. Nowhere is this more apparent than in the significant declines in managed lane revenues during the COVID-19 pandemic. Across the US, millions of commuters traveled less, thus reducing congestion. As a result, there was little need for drivers to choose a priced managed lane alternative, and revenue dropped significantly. Revenues from the I-405 Express Lanes in Seattle, for example, have still not recovered to their pre-COVID levels and are currently estimated at 45 percent relative to 2019. In short, the response of drivers to managed lanes during the reduced travel demand brought about by COVID-19 shows that when demand is reduced, managed lane volumes are the first to drop and the last to recover. As a result of overall managed lanes revenue volatility, they are

<sup>&</sup>lt;sup>2</sup> Source: WSP research



**RMPP** Managed Lane Evaluation

difficult to leverage into other funding sources such as bonds. Fully tolled facilities are more reliable in terms of revenue generation and frequently support large bonding packages.

Given their volatility and relatively low levels of revenue generation, managed lanes are not considered to be a reliable or sustainable source of revenue for transportation investment within the Portland region and therefore do not meet the project purpose and need.

# 4.1 Managed Lanes Evaluation

Table 2 summarizes evaluations of a newly constructed managed lane, a converted managed lane, and all lanes tolling within the considerations used to evaluate the RMPP options. For almost all considerations, tolling all lanes performed better than either converting an existing general-purpose lane or adding a new managed lane.



## Regional Mobility Pricing Project

### RMPP Managed Lane Evaluation

## Table 2: Evaluation of Managed Lane Options (with two general-purpose lanes) relative to all-lane tolling

Consideration	Construct a New Managed Lanes	Convert a General-purpose Lane	Tolling All Lanes
<b>Congestion &amp; Demand Mana</b>	gement on I-5 and I-205		
Vehicle Speed on I-5 and I- 205	Improved travel speeds on I-5 and I- 205	Reduced travel speeds on I-5 and I-205	Significantly improved travel speeds on I-5 and I-205
Through Trip Time Savings on I-5 and I-205	Improved through trip time savings on I-5 and I-205	Reduced through trip time savings on I-5 and I-205	Significantly improved through trip time savings on I-5 and I-205
<b>Regional System Performanc</b>	e	•	
Regional VMT	Likely higher regional VMT	Potentially lower regional VMT	Likely lower regional VMT
Regional VMT per Capita	Likely higher regional VMT per capita	Potentially lower regional VMT per capita	Likely lower regional VMT per capita
Regional Vehicle Time Savings (VHT)	Likely lower regional VHT	Likely higher regional VHT	Likely lower regional VHT
Diversion			
Diversion to Non-Tolled Facilities	Limited diversion due to added capacity.	Potentially significant diversion due to new tolls, reduction in general-purpose capacity and worsening congestion on the remaining lanes.	Potentially some net diversion to non-tolled facilities
Freight Diversion to Non-Tolled Facilities	Limited freight diversion due to added capacity.	Potentially significant freight diversion due to new tolls, reduction in general-purpose capacity and worsening congestion on the remaining lanes.	Potentially some net freight diversion to non-tolled facilities
I-5 and I-205 Trip Characteris	tics		
Comparison of costs for several representative trips on I-5 and I-205	Lower cost to managed lanes users relative to using a converted general-purpose lane. Higher travel costs in manage lane than with all lane tolling.	Likely the highest cost to users of the managed lanes	Lower cost to I-5 and I-205 users relative to using a converted general-purpose lane.
Travel times for several representative trips on I-5 and I-205	Improved travel times	Degraded travel times	Improved travel times
Share of I-5/I-205 trips paying RMPP tolls	Lowest volume of tolled trips of options	Higher volume of tolled trips relative to constructing a new managed lane	Highest volume of tolled trips of the options



Regional	Mobility	Pricing	Project
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	RMPP Managed Lane Evaluation			
Consideration	Construct a New Managed Lanes	Convert a General-purpose Lane	Tolling All Lanes	
Multimodal Travel				
Mode Share Shift (HOV, SOV, Transit, Bike/Walk)	Lowest potential for mode shift due to presence of higher performing general purpose lanes.	Some potential for mode shift.	Some potential for mode shift.	
Equity				
Location and number of non- tolled trips on I-5 and I-205	Highest number of non-tolled trips.	Fewer non-tolled trips relative to constructing a new managed lane	Lowest number of non-tolled trips	
Revenue Potential				
Indexed comparison of gross revenue	Lowest gross revenue potential due to improved conditions	Higher gross toll revenue potential relative to constructing a new lane	Highest gross revenue potential	
Indexed comparison of net revenue	Lowest net revenue potential due to improved conditions and high cost of building new lanes	Higher net toll revenue potential relative to constructing a new lane	Highest net revenue potential	
Customer Experience				
Communication of toll rates	May use more complex dynamic pricing to maintain free flow travel conditions instead of scheduled fees	Will likely use more complex dynamic pricing, instead of scheduled fees, to maintain free flow speeds in managed lanes.	Will use scheduled fees that are easier for the public to understand and use to plan trips.	
Understandability of trip costs	More difficult for users to plan trips. Toll rates can change while the driver is travelling.	More difficult for users to plan trips. Toll rates can change while the driver is travelling.	Drivers can know rates in advance, based on scheduled fees for each toll zone or congested area.	
Ability to integrate with I-205 and IBR	Dynamic pricing is a different rate setting approach to I-5 and I-205. Would require educating the public on the differences and the reasons for those differences.	Dynamic pricing is a different rate setting approach to I-5 and I-205. Would require educating the public on the differences and the reasons for those differences.	Rate setting would be consistent with the approaches used for the IBR and I-205 Toll Project.	
<b>Construction Feasibility and C</b>	apital Costs	-		
Availability and experience of tolling service providers and vendors	Numerous experienced vendors available for managed lanes applications.	Numerous experienced vendors available for managed lanes applications.	Depending on the approach, there may be limited vendors with experience in full facility congestion pricing.	
System Integration	Vendors available for system integration.	Vendors available for system integration.	Vendors available for system integration.	



RMPP Managed Lane Evaluation			
Consideration	Construct a New Managed Lanes	Convert a General-purpose Lane	Tolling All Lanes
Constructability and capital cost of toll system	Highest Cost Option: Significant construction costs associated with managed lane development. Additional costs associated with general purpose lanes due to need to reconfigure interchanges, ramps, etc. to accommodate managed operations.	Capital costs incurred for restriping, barrier placement, signage, and merging/access points between the managed and general- purpose lanes. Potentially high costs for reconfiguring ramps and interchanges.	Lowest cost option in terms of construction.

## Regional Mobility Pricing Project



# Urban Mobility

# **Regional Mobility Pricing Project**

Date	September 11, 2023
Subject	Regional Mobility Pricing Project Options: Modeled Findings and Trade Offs Evaluation

Options for the Regional Mobility Pricing Project were recently compared against one another in a screening-level analysis. One option would toll the full system and two options would toll only within toll zones. High level findings and differences between options are summarized below. The results will be considered by ODOT, agency partners and the public before one refined option is selected in fall 2023 for a comprehensive analysis. The options being evaluated are below.

	Option 1: Full System		Option 2a: Toll Zones		Option 2b: Toll Zones with Interchange Zone
•	Base toll during daytime hours (5 AM to 9 PM) plus Congestion Area tolls during peak hours All trips using I-5 or I-205 pay a toll during daytime hours (5 AM to 9 PM)	•	No base toll Tolls applied when needed to manage congestion (\$0 tolls applied during some daytime hours)	•	No base toll Tolls applied when needed to manage congestion (\$0 tolls applied during some daytime hours)
•	More than 60 toll points on entrance ramps to charge base toll Five Congestion Area toll points on I-5 and three Congestion Area toll points on I-205	•	55% - 60% of trips that use I-5 and I-205 pay a toll Four toll zones on I-5 and three toll zones on I-205 One toll paid per zone, regardless of number of toll points passed		60% - 65% of trips that use I-5 and I-205 pay a toll Three toll zones on I-5, three toll zones on I-205, and one I-5/I-205 interchange zone One toll paid per zone, regardless of number of toll points passed

## Key Takeaways from RMPP Options Evaluation Process

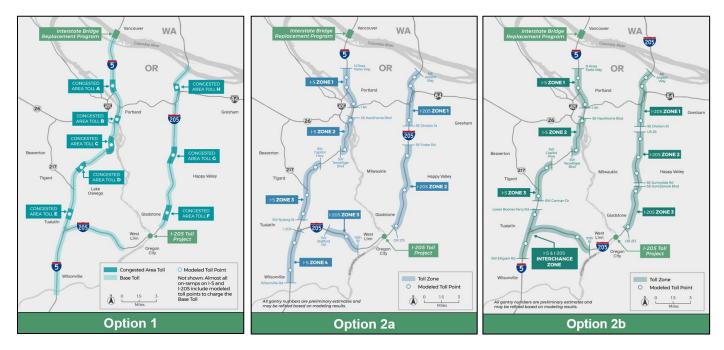
All options are shown to meet the project objectives with similar outcomes for I-5 and I-205 performance and net revenue. Option 1 would toll all trips with more infrastructure and higher costs, while options 2a and 2b would charge trips in high-traffic areas of I-5 and I-205 with less infrastructure and lower costs. Key takeaways from this stage of the evaluation are:

- All options result in average speeds near 45 mph and through-trip travel time savings with comparable trip costs.
- All options show reductions in vehicle miles traveled (VMT) and vehicle hours traveled (VHT) and mode shifts at the regional level, but option 1 shows the greatest mode shift.
- All options show limited diversion on a regional scale to non-tolled highways and arterials/collectors. Option 2a shows the least amount of total VMT increase on arterials and collectors.
- All options result in decreased freight traffic on local roads (tolling improves present-day freight diversion onto arterials).



Regional Mobility Pricing Project Options: Modeled Findings and Trade Offs Evaluation / September 11, 2023

- All options are likely to generate net revenue. Option 2b may generate slightly more net revenue than other options. This is due to the larger I-5/I-205 interchange zone.
- Option 1 has the highest capital cost due to more infrastructure. Option 1 also has the greatest potential range of capital costs due to more cost variables and vendor uncertainty.
- Option 1 is likely to take longer to implement than options 2a or 2b.



## **RMPP** Options

## **Evaluation Matrix**

A detailed matrix comparing the project options is attached.



Consideration	Objective	Criteria for Comparison	Option 1: Full System	Option 2a: Toll Zones	Option 2b: Toll Zones with interchange zone	
Modeled Considerations						
Congestion and Demand	Improve efficient use of roadway	Vehicle Speed	Average speeds near 45 MPH			
Management on I-5 and I-205*	infrastructure and improve travel reliability.	Through Trip Travel Time Savings	5-10 minutes on I-5 and 3-5 minutes on I-205			
Regional System Performance	Reduce vehicle miles traveled and	Daily Regional VMT	1% - 2% decrease			
	vehicle hours traveled.	Daily Regional VHT	2% - 3% decrease	1% - 2% decrease	1% - 2% decrease	
		Daily VMT change on Arterials and Collectors (Total)	2%-3% increase	1%-2% increase	2%-3% increase	
Diversion and VMT Change	Limit rerouting of trips away from I-5 and	Daily VMT change on Other State Highways (Total)	3% - 4% decrease	2% -3% decrease	2% -3% decrease	
Diversion and vivir onlarge	I-205.	Daily VMT change on Arterials and Collectors (Freight only)	10% - 15% total decrease	5% - 10% total decrease	5% - 10% total decrease	
		Daily VMT change on Other State Highways (Freight only)		0% - 5% increase		
Multimodal Travel	Support shifts to higher occupancy vehicles (including carpooling). Support increased transit ridership.	Mode shift to transit, active transportation, and carpool	40,000 fewer vehicles on regional roads	30,000 fewer vehicles on regional roads	30,000 fewer vehicles on regional roads	
Equity Analysis of Equity Focus	Support equitable and reliable access to job centers and other important community places.	Share of trips on I-5 and I-205 that start in EFAs	30% - 35%			
Areas	Identify potential project effects to identified historically and currently excluded and underserved communities	Diversion within EFAs	Average volume-to-capacity ratio (v/c) on non-tolled roadways similar to No Action scenario			
Generate sufficient revenue from congestion pricing for local transportation system investments that support congestion relief and travel demand management.		Net revenue	Net revenue positive.	Net revenue positive.	Revenue positive. Could have highest revenue potential.	
Non-Modeled Considerations						
	Design a congestion pricing project that can be expanded in scale, integrated with road pricing on other regional roadways, or adapted to future road pricing system applications.	Availability and experience of tolling service providers and vendors	Limited vendors with experience	Greater availability	Greater availability	
Constructability and Capital		System integration	More complex	Less complex	Less complex	
Costs		Constructability and capital cost of the toll system	\$175 - \$250 M (Least cost certainty)	\$140 - \$200 M (Most cost certainty)	\$150 - \$200 M (Most cost certainty)	
		Schedule to implement	2-4 years longer to implement	Shorter implementation timeline	Shorter implementation timeline	

\*Note: Rate assumptions for this analysis were refined to achieve similar performance in this category. All options achieved objectives for Congestion and Demand Management on I-5 and I-205.

Legend	
	Similar results between options
	Meets project objectives and performs better than other options
	Meets project objectives but does not perform as well as other options
	Challenging to meet project objectives



# Memorandum

Date	Revised August 25, 2023
То	Regional Toll Advisory Committee (RTAC)
From	RTAC Project Team
Subject	RTAC Nexus Project List Development and Selection Criteria

## 1. Introduction

Over the past year, ODOT has heard from partners that there is a desire for more mitigation than will be identified through the National Environmental Policy Act (NEPA) process. Partners are seeking investments that will complement pricing and further encourage mode shift and reduce vehicle miles traveled. Partners have shared they know the system well and know the types of projects that will be needed to address impacts. After receiving this input, ODOT convened regional public transportation providers to develop a Public Transportation Strategy (PTS); and requested that partners develop a list of projects that have a clear nexus to toll-related impacts.

This memorandum documents the proposed approach and revised selection criteria to develop the Regional Toll Advisory Committee (RTAC) list of pedestrian, bicycle, and other roadway projects that have a nexus to improving mobility in concert with a congestion pricing system on I-5 and I-205. This process will be coordinated with the ongoing effort lead by public transportation agencies to develop a PTS that best complements regional congestion pricing.

This document summarizes the conversation that began at the June 20, 2023, RTAC meeting, and addresses feedback from members and staff.

## 2. Nexus List Proposed Development Process

ODOT staff will work with senior staff from jurisdictions in the region to draft a list of nexus pedestrian, bicycle, roadway, and other mobility projects for RTAC consideration. The proposed approach to developing the draft nexus project list includes:

- 1. Develop definition and selection criteria for projects with a nexus to the proposed toll system on I-5 and I-205. RTAC reviews and provides input to the definition and criteria (June-July 2023).
- 2. ODOT will request jurisdictions/partner agencies to identify potential nexus projects using the definition, criteria, and a simple intake form. Any jurisdiction may submit a project, including jurisdictions not directly represented at the RTAC table (Request initiated in early August 2023).
- 3. Partner agencies/jurisdictions submit initial nexus projects using the intake form (By September 5, 2023).
- 4. The ODOT Toll Project team will work with senior partner agency staff to review, discuss, and identify the nexus projects that meet the criteria for discussion of by RTAC (September 2023). Once a draft list has been developed, projects may be sorted or grouped in categories to facilitate review and discussion.



- 5. RTAC members may choose to submit additional potential projects by October 12, 2023.
- 6. RTAC will discuss and refine the list of nexus projects as well as next steps based on the outcomes of staff discussions (September and November 2023).
- 7. The refined nexus project list and next steps will be considered in the development of ODOT's Implementation Plan due to Governor Kotek on December 15, 2023.
- 8. The list will be considered a working draft as the toll projects continue to develop. RTAC staff will revisit the nexus and PTS project lists as additional traffic modeling data is available and to discuss funding options once revenue projections are known.

Nexus and PTS lists may be revised and/or prioritized as the following information is available:

- NEPA analysis
  - Benefits/impacts/mitigation for RMPP (2024)
  - Benefits/impacts for I-205 Toll at Abernethy (2024)
- Low-income toll program parameters (2024)
- Revenue analysis
  - Level 2 Traffic and Revenue Analysis for I-205 (2024)
  - Level 2 Traffic and Revenue Analysis for RMPP (2024)
- Identification of Nexus, and refinement of PTS, project costs, implementation timeframes, and identification of matching funds or additional funding sources that could support delivery (2025)

## 3. **RTAC Input**

The following elements of the draft nexus project definition and selection criteria changed as a result of input from several RTAC members and staff:

Many respondents indicated that the definition of nexus either needed no further editing or was headed in the right direction. Minor text edits were made to the definition previously presented to enhance clarity. Several requested more information about the purpose of the nexus project list – this section has been added to this memo.

Many respondents indicated that the selection criteria are generally those that should be considered for nexus project list development. There was eagerness for more information about how selection criteria would be used, and the level of detail required from local jurisdictions. The project team reorganized the selection criteria into three categories, including: relationship to congestion pricing, equity, and project readiness. Additionally, individual selection criteria (project location, readiness) are more clearly defined based on member feedback. This includes broadening the definition for project location and project



readiness. Some suggested criteria, such as project funding, were removed to simplify and focus the list. Project funding and cost will now be considered at a later stage.

Input received is available upon request.

## 4. Purpose of the Nexus Project List

RTAC, and by association all regional ODOT Toll Project partners and jurisdictions, are asked to engage in an effort to identify pedestrian, bicycle, roadway, and other mobility projects<sup>1</sup> that have a nexus to congestion pricing when it is implemented on I-5 and I-205 in the Portland metropolitan area. The nexus projects are key projects that advance multimodal accessibility, are critical to achieving congestion relief in our region, and provide access to opportunity or address transportation-related disparities and barriers experienced by the Toll Projects' Equity Framework<sup>2</sup> communities.

The nexus project list (as well as the final Public Transportation Strategy project and supportive services list) is intended to aid ODOT and regional partners as the Toll Program advances, funding opportunities become available, and strategic partnerships and investments are aligned. Nexus projects are, in many cases, ambitious and essential infrastructure investments that are needed to provide mobility options in the region within the context of a priced system. Paired together, regional pricing and investments in the pedestrian, bicycle, roadway, and transit systems can support regional and state goals related to equity, mobility and climate. The nexus project list may change and expand as funding and regional priorities and needs change.

## 5. Nexus Project Revised Definition

Nexus projects are pedestrian, bicycle, roadway, or other mobility projects that would complement a tolling system on I-5 and I-205 in the Portland metropolitan area by:

- Supporting congestion relief on a corridor that may become more congested with the implementation of tolling, OR improving access to public transportation, OR improving mobility options on a toll highway traffic diversion corridor, AND
- Providing access to opportunity OR addressing transportation-related disparities and barriers experienced by the Toll Projects' Equity Framework<sup>3</sup> communities.

https://www.oregon.gov/odot/tolling/Documents/Toll Projects Equity Framework with AppendixA.pdf



<sup>&</sup>lt;sup>1</sup> Note, the Public Transportation Strategy is a separate effort underway to identify specific public transportation projects and supportive services that are complementary to a congestion pricing system on I-5 and I-205.

<sup>&</sup>lt;sup>2</sup> Toll Projects Equity Framework.

https://www.oregon.gov/odot/tolling/Documents/Toll\_Projects\_Equity\_Framework\_with\_AppendixA.pdf <sup>3</sup> Toll Projects Equity Framework.

Category	Selection Criteria
Congestion Pricing Nexus	<ul> <li>Project Location – Project is within a corridor that may become more congested due to tolling diversion.</li> <li>Safety – Project is focused on addressing a safety concern at an identified high injury location for vehicle drivers, pedestrians, or bicyclists.</li> <li>Network Connectivity – Project provides additional connections to the street network.</li> <li>Transit – Connects to/expands access to public transportation or complements a Public Transportation Strategy project or supportive service.</li> </ul>
Equity⁴	<ul> <li>Project Location – Project serves Equity Framework communities.</li> <li>Equitable Engagement – Equity Framework communities have had or will have the opportunity to engage in project development.</li> <li>Benefits – Project reduces travel times and/or increases modal options for Equity Framework communities.</li> <li>Access to job centers – Project increases accessibility to job centers for Equity Framework communities.</li> <li>Climate – Provides opportunities for reduced greenhouse gas emissions (or could contribute to improved air quality) or encourages multimodal transportation use.</li> </ul>
Project Readiness	<ul> <li>Planning stage, implementation phase, public engagement –</li> <li>Project is included in regional transportation plan or a local plan.</li> <li>Project will be ready for implementation within 5 years.</li> <li>Project will be ready for implementation in 5 to 10 years.</li> <li>Project has had some early planning conducted and/or completeness of project design.</li> <li>Project is supported by facility owner and nearby communities.</li> </ul>

#### **Nexus Project Revised Selection Criteria** 6.

<sup>&</sup>lt;sup>4</sup> EMAC review may result in adjustments to these screening criteria.



# **Meeting Summary**

Subject	Regional Toll Advisory Committee Meeting #8
Date and Time	June 26, 2023 / 9:00-11:30 a.m.
Location	Hybrid: Billy Frank Jr. Conference Center at Ecotrust and online via Zoom

Attendee	Organization / Role	Attendance
	Committee Members	
Rory Bialostosky	City of West Linn	In person
Frank Bubenik	City of Tualatin	In person
Shannon Carney (alternate for Mingus Mapps)	City of Portland	In person
Shawn Donaghy	C-TRAN (Washington business)	Virtual
Denise Harvey	Confederated Tribes of Grand Ronde	Virtual
Nafisa Fai	Washington County	In person
Adam Fiss (alternate for Matt Ransom)	SW Washington Regional Transportation Council	In person
Carley Francis	Washington State Dept. of Transportation	In person
Sarah lannarone	The Street Trust	In person
Jana Jarvis	Oregon Trucking Association	In person
Anne McEnerny-Ogle	City of Vancouver	In person
Willy Myers	Columbia Pacific Building Trades Council	In person
James Paulson	EMAC Liaison	In person
Lynn Peterson	Metro	In person
Dean Reynolds	Cowlitz Indian Tribe	Virtual
Curtis Robinhold	Port of Portland	In person
Sara Ryan (alternate for Susheela Jayapal)	Multnomah County	In person
Paul Savas	Clackamas County	In person
JC Vannatta	TriMet	In person
Kasi Woidyla	Virginia Garcia Memorial Health Center	In person
Keith Lynch	FHWA (ex officio)	In person
Kris Strickler	ODOT Director, Chair	In person
Brendan Finn	ODOT, Urban Mobility Office (ex officio)	In person
Della Mosier	ODOT, Urban Mobility Office (ex officio)	In person
	Project Team	
Mandy Putney	ODOT, Presenter	In person
David Kim	Facilitator	In person
Kirsten Beale	Committee coordinator	In person
Anne Pressentin	Facilitation support	In person
Jodi Mescher	Notetaker	In person
Nick Fazio	Zoom host	Virtual
Logan Cullums	Zoom support	In person



Attendee	Organization / Role	Attendance
Committee member regrets: Mingus Mapps, Sus	sheela Jayapal, Jon Isaacs, Matt Ransom	

# **1 Welcome and Opening Remarks**

David Kim, facilitator, welcomed the meeting attendees and talked through meeting logistics. David reminded the audience that this is a public meeting and a hybrid meeting.

Director Strickler reviewed key themes that ODOT heard from the RTAC listening session meeting in May, including:

- Equity must be a priority
- It is time to put hard work on the table and focus on the tangible projects
- ODOT should listen and respond directly and clarify decision processes
- ODOT should discuss what toll revenue is available and how it can be used

Director Strickler noted that a portion of the agenda was reconfigured in response to requests from RTAC members to address specific questions and the themes from the last meeting. In reviewing the added agenda items, Director Strickler acknowledged that there is tension between the needs in the region and the revenue available to address those needs.

**Timeline for RTAC:** RTAC's workplan will need to change for the region to be successful and to meet the Governor's direction to delay toll collection until 2026. Director Strickler stated that the RTAC workplan will be extended beyond 2023 to a logical milestone.

**Connections to OTC and Legislature**: Director Strickler discussed the connection between RTAC, the Oregon Transportation Commission (OTC), and the Special Subcommittee on Transportation Planning. Director Strickler advised that if RTAC members wish to submit comments to the OTC they can. This group is not meant to be a barrier. If this group wants to designate one or two members to represent the views of the committee during an OTC meeting, he said that he is willing to set that up. He reminded RTAC members that ODOT does not set the agenda for the Legislature.

**Finance Plan**: Director Strickler reminded RTAC members that the Governor requested a finance plan by to be submitted by July 1. ODOT has been working to reflect the Urban Mobility Strategy (UMS) in the finance plan. Delaying tolling until 2026, cost increases associated with the projects, and scope changes to improve transportation access will have financial impacts. As a result, the project needs to be conservative with toll revenue projections because those financial changes will impact the short-term borrowing capacity. The OTC will be considering the <u>finance plan</u> on June 28 before it is delivered to the Governor. The projected total cost of UMS projects is between \$3.7 and \$4.3 billion. Funding sources allocated to UMS come from federal and state resources that were invested in early design phases, \$30 million that were allocated under HB 2017, and future toll revenue. With the delay in toll collection, the project projects \$385 million in available revenue from tolling the Abernethy Bridge and \$300 million from tolling the Tualatin River Bridge. Director Strickler encouraged RTAC members to review the finance plan and make a comment at the OTC meeting on June 28th.



**Toll Scenarios**: Director Strickler stated that ODOT plans to run different tolling scenarios in recognition that a single scenario has created a polarizing conversation. There is an ongoing tension between keeping the toll rates low enough to limit the burden on users and having it create the congestion management, revenue generation, and greenhouse gas reductions intended for the project. Director Strickler asked the senior leadership teams to discuss and analyze what those different tolling scenarios can be.

- Commissioner Savas and Jana Jarvis asked if the \$385 million for the Abernethy Bridge was an annual projection or over the lifetime of the project. Commissioner Savas also asked for clarification on which portion of the project \$385 million would be generated from.
  - Director Strickler responded that \$385 million is the amount of available project proceeds (cash value) over 30 years. If the project tolls the Abernethy Bridge, there will be \$385 million available in project funds. If the project tolls the Tualatin River bridges, there will be an additional \$300 million in project funds. Director Strickler said that ODOT's financial plan indicates the third lane on I-205 will be delayed due to lack of funding.
- Mayor Bialostosky asked how the project calculated the amount of available revenue without rate assumptions being determined for the I-205 Toll Project.
  - Director Strickler responded that the revenue estimate uses the base rate from the draft Environmental Assessment (EA); the actual toll rates have not been set yet.
- President Peterson asked if the region could rely on [RMPP] congestion pricing and not have a toll [at the I-205 bridges]. She suggested the following alternative scenarios:
  - Implement the I-205 Toll Project and the Regional Mobility Pricing Project (RMPP)
  - Implement RMPP on all lanes without the I-205 toll
  - Implement RMPP on two lanes without the I-205 toll
  - Implement RMPP on one lane and no I-205 toll
- President Peterson said that Metro Council is open to considering other options to move the project and the region forward.
- Jana Jarvis asked if the greenhouse gas (GHG) reductions consider the volume or the flow of traffic. She also asked if an improved traffic flow would contribute to lower GHGs.
  - Director Strickler responded that the GHG reduction calculations consider both the volume and the flow of traffic. There needs to be a balance between improving flow and volume of traffic because if the transportation system flows better but it serves a higher amount of traffic, it wouldn't necessarily contribute to GHG reductions.
- Commissioner Savas commented that the scenarios are looking at two interstates and leaves out Hwy 217, Hwy 26, and I-84. If those systems were included in the analysis, it would change the revenue. He also said that the project should consider an express lane system.



 Director Strickler asked senior staff to work with agencies around the table to talk about different tolling scenarios brought forth by President Peterson. However, if the team finds that alternative scenario would not extend the third lane on I-205, that will impact the scenarios the project can consider. Director Strickler stated that there may be some impacts if projects aren't implemented at the same time.

# 2 Advancing Equity for the Oregon Toll Program

Mandy Putney, ODOT, discussed ODOT's progress on advancing equity for the Oregon Toll Program. Mandy reminded RTAC that the process of applying an equity framework to the Toll Program began in 2019 to build on recommendations from the Value Pricing Feasibility Analysis (VPFA). The VPFA concluded that toll system success was dependent on attending to issues of inequity, diversion, and lack of travel options.

Mandy reviewed the process that the I-205 Toll Project used in the equity analysis to determine whether Equity Framework Communities (EFCs) would experience a chance in accessibility or travel time to social resources. The analysis found that the alternative with tolling would result in the same or greater accessibility to social resources for households in the area of potential impact when compared to the alternative without tolling. The team analyzed 16 representative scenarios to estimate potential travel time impacts to both EFCs and the general population and found that trips using the I-205 corridor had shorter travel times with tolling compared to the alternative without tolling. The work done with the Equity and Mobiliy Advisory Committee (EMAC) and EFCs has directly shaped the environmental assessment and allowed the project to evaluate impacts to communities through a more wholistic and equitable lens. By engaging with these communities early on and on a continuous basis, their input has directly shaped the planning process and environmental review. Continued engagement will ensure the equitable distribution of benefits which are shared across all demographics. Mandy also said the planned equity methodology for RMPP will be based on the I-205 methods.

Mandy discussed the multi-step process used to create the Low Income Toll Report and shared that EMAC and Statewide Toll Rulemaking Advisory Committee (STRAC) will consider options for the Low Income Toll Report in July 2023. The low income toll program will be available on the first day of tolling and there will be multiple payment options.

ODOT is seeking partnerships with CBOs to reduce barriers to access benefits and information. ODOT adopted a policy in 2021 that provides ODOT staff with tools to incentivize participation and reduce barriers.

Key themes heard from EFCs from 2020-2023 across multiple comment periods include that EFCs rely on the interstate system, the concerns of EFCs are not significantly different from the general population and remain consistent over time, and that EFCs are more likely to prioritize "minimizing impact of tolls to people with low incomes" and "provide alternative non-tolled driving routes" compared to all commenters. In addition, there is a desire from EFCs to keep tolls as low as possible, the statement that transit is not



currently viewed as a viable alternative to driving, skepticism that tolling could reduce congestion, and concern that EFC voices won't matter in decision-making.

Mandy reviewed EMAC's recommended actions to the OTC. ODOT and EMAC will be holding a joint accountability workshop on July 10. ODOT will be looking for opportunities to collaborate meaningfully with EMAC to ensure that equity remains central to Toll Program implementation and beyond.

Brendan Finn, ODOT, shared a feedback form for RTAC members to fill out to provide input on ODOT's work to advance equity and the possible nexus projects. The form will also be made available electronically via Google Docs to provide additional feedback.

# Discussion question: What additional ideas do you have to achieve process equity in toll program development? Based on your experience in making choices that center equity, what are lessons learned that can be brought to this process?

- Commissioner Savas said that actual impacts to EFCs will be greater than what ODOT estimated because the draft EA does not adequately focus on impacts to the off-facility systems.
- President Peterson commented that an equity lens needs to be applied to multiple areas of the project and the toll is one of them. As it stands today, the transportation system isn't working to provide access to opportunity because there is only one way across the Willamette River.
   President Peterson noted that equity is not a part of the selection criteria for the nexus projects. She suggested a further conversation about how to include equity in the selection criteria, as well as how to determine which projects should be included in the conversation because there are projects not included in the RTP that may need further consideration. President Peterson said that programmatically it is easy to see equity being considered, but she was not confident that systematically we would achieve equity because some projects are not even in current plans.
  - Mandy responded that the analysis needs to rely on what has already been documented and planned. She added that even if a project isn't included in NEPA, it can still move forward at a regional level.
  - Director Strickler reiterated that NEPA has constraints related to how the analysis is performed based on the RTP. He acknowledged that there are toll-related impacts and there are existing access-related gaps in the system that need to be discussed and how we fund them.
  - President Peterson said that the analysis needs to look at how to reduce the toll to provide better accessibility but there might be projects that improve accessibility even more.
  - Director Strickler responded that there is tension because there might be a project that provides an opportunity for someone to never get on the highway, but there is a question of how to pay for that project. He agreed that ODOT has been focused on the policy and programmatic framework of establishing an equity-based toll project, but there are other project improvements throughout the region that could also provide some benefit.



- Shannon Carney commented that the finding that transit isn't viewed as a viable option for EFCs displays a need for a coordinated investment beyond the main line transportation system. She added that a key concern is recognizing the cost burden for residents across the region. Shannon commented that it was interesting that the concerns heard from EFCs are consistent with other communities in the region and asked if there are areas where EFCs had different concerns than the rest of the population.
  - James Paulson, EMAC liaison, responded that EFC concerns are more personal. They
    are typically concerned that they can't afford additional costs, so a key concern is
    keeping the toll rates low. James shared that communities in Gresham have expressed a
    challenge of getting people to viable jobs because there isn't viable access to transit.
    James summarized that EFCs are more focused on real individual challenges than
    looking at the overall regional project.
- Jana Jarvis said that the concept of tolling introduced in HB 2017 was a straight-forward recognition of the need to generate revenue to off-set project costs. However, it seems that the project has lost focus on decisions made in 2017 that have not yet been completed. Jana said that with more users paying into the system, the overall cost for each user will be lower, and as more exemptions and discounts are available, the costs will rise for all users. She expressed frustration because Oregon has always had a transportation system based on user-fees but now discussions are creating a system dependent on income-levels.
- Commissioner Fai shared that she appreciates that ODOT recognized the connection to public health in applying an equity framework. Commissioner Fai commented that the existing conditions of the transportation system have barriers to equity and suggested creating an adaptation plan for EFCs to adjust to a new system because there are some barriers in the existing systems that can't be addressed.
- Mayor Bialostosky commented that the project also needs to consider location equity for communities surrounding the location of tolls.
- Commissioner Savas shared that the tolling system in Atlanta, Georgia does not have diversion because it uses an express lane model; he suggested Oregon consider an express lane scenario. He said that Oregon's tolling program is creating problems they don't need to create.

# 3 Nexus Projects

Brendan Finn, ODOT, acknowledged that ODOT has heard requests to start the conversation about the nexus projects. He reviewed the working definition for nexus projects as well as the possible selection criteria to screen nexus projects. Brendan highlighted the process to develop and implement the nexus project list in relation to developing PTS projects. The PTS and nexus project processes will likely converge at the October RTAC meeting to review both project lists and determine next steps.



Discussion questions: What feedback do you have on the "nexus" definition? What should we consider to advance the draft selection criteria? What does it mean to center equity in RTAC's nexus project conversation? What feedback do you have on the proposed process?

- JC Vannatta noted that there are now three "buckets" of projects: mitigation projects, PTS projects, and nexus projects. He asked if there will even be enough money to fund the mitigation projects before funding PTS and nexus projects.
  - Brendan responded that the NEPA process will identify mitigation projects to satisfy regulatory requirements. ODOT recognizes that is not enough and is looking at other efforts. Mitigation projects will be included in the project costs, but funding for projects beyond mitigation will require a future conversation with the legislature.
- Commissioner Savas said he had no quarrel with the draft nexus definition. He said that
  jurisdictional TSPs do not recognize tolling and therefore the draft RTP is already outdated
  because it doesn't consider the impacts from tolling. He said that the tolling scenario needs to be
  defined first because that data will be needed to determine what projects are needed.
  Commissioner Savas said that the project list needs to be paused and re-set to allow time to
  complete it comprehensively.
- Shawn Donaghy commented that some of the projects will be funded through revenue generated from tolling, but other projects will fall on the local jurisdictions or the County to resolve those issues. He agreed that the nexus project list needs to be paused to assess what the potential outcomes of the toll projects are and identify where additional revenue will be needed for mitigation.
- President Peterson said the definition is a good start. She said that the financial plan needs to be married with the project list. There are three types of projects, and they need to be distinguished as they are put on the table: (1) projects based on the existing problems, (2) projects needed on opening day of tolling to address impacts, and (3) projects needed as long-term impacts and congestion increases over time. President Peterson said that projects for the existing needs should be a priority. She added that there needs to be a project list of the existing and opening day impacts. Tolling and RMPP are paying for I-205 lane expansion over 30 years. In the meantime, there is MTIP money, a transportation package, and future RMPP revenue. President Peterson suggested that long-term impacts and future RMPP revenue should be married for future needs that we could not have foreseen. President Peterson is committed to helping. She said the project should create a framework that helps to make decisions as quickly as possible without leaving anybody out.
- Mayor Bialostosky commented that the NEPA process is supposed to mitigate all impacts, but the
  nexus project list admits that the project does not mitigate all impacts. He said that the projects
  included in jurisdictional TSPs that could be nexus projects may cost \$500 to \$700 million, but
  there won't be that level of funding available. Mayor Bialostosky added that he would appreciate a
  pause and a discussion about revenue sharing. He also said that there is not enough data
  available for decision-making and the EA shows that the modeling does not match up to revenue
  projections.



- Denise Harvey expressed concern that Tribes have been discussed along with other equity concerns. She said that as sovereign nations and Tribes should be treated separately and not considered in the EFC category. Denise added that the toll roads will be in the homeland of the Grand Ronde Tribe, so that needs to be considered. She shared that she has experience with toll roads in California and doesn't believe that they are effective for providing congestion relief.
  - Brendan responded that Denise's point was well taken. ODOT engages with Tribes through government-to-government consultation, which is a separate process.
- Mayor McEnery-Ogle commented that there are limitations to funding capital project mitigations in Clark County.
  - Brendan responded that will be a topic to consider and have more discussion about.
- Keith Lynch, FHWA, commented that NEPA has a limited scope. There are communities in the toll corridor that are Environmental Justice communities, which includes low income and minority communities, and that is a focus of equity for NEPA. FHWA is working with ODOT to establish strategies to mitigate adverse impacts and meet federal requirements. However, if there is diversion, NEPA does not demand that all impacts be mitigated; it will be up to ODOT to address diversion. Once mitigation projects are in the NEPA document, they become requirements of the project and must be considered in the project costs.
- Commissioner Savas commented that jurisdictions are not ready to put together a sophisticated list of nexus projects and projects would be based on assumptions rather than calculations due to time constraints. He said that it is alarming that there is not enough funding to expand the third lane on I-205 because that indicates there will also not be funding available to implement mitigation projects for the opening day of toll implementation.
  - Director Strickler responded that he understands the anxiety and the frustration. He added that the project shouldn't speculate because previous speculation has caused anxiety around the table. He clarified that ODOT staff conversations have been databased. Director Strickler said that the project list is necessary to determine in order to understand what the target is and frame the conversation.
- Shannon Carney said that she appreciates the definition of nexus projects is broad enough to
  include many projects. She also commented that there is a need to have more discussion about
  finances and revenue sharing. She said the City of Portland would like to move forward together
  to work on the project list.
- Sara Ryan commented that there is a lack of clarity around how to prioritize funding for projects. She added that there should be more focus on seeing local jurisdictions as partners and expressed a desire to discuss revenue sharing.
- President Peterson said that the most important thing is to identify projects that create a better transportation system. The second important thing is to use those projects as case studies to understand what is attributable to tolling and what is attributable to the existing system. President



Peterson noted that there are a lot of staff working on these projects and they should be empowered as a team for implementation. She said that it is time to start with the list of nexus projects and case studies and move the project forward.

- JC Vannatta asked when the project will know the mitigation projects and overall costs.
  - Brendan said mitigation for the I-205 Toll Project are included in the EA; mitigation projects have not been determined for RMPP and will likely be shared in Fall 2023.
- Sarah lannarone said that there are a lot of people that have been doing this work and there are already working definitions and frameworks the project can modify and use (e.g. EMAC's equity framework). She commented that timing is important to adapt, and she noted that the project can pivot quickly if needed. There needs to be intensified coordination across decision-making bodies because shared decisions will move the project forward quicker. The project needs to have feedback and adapt along the way with real-time evaluations to ensure it is implemented equitably. Sarah said we need to treat this opportunity as a modest emergency and move ahead.

# 4 **Public Comment**

Two people provided public comment online:

- John McCabe, a resident in the Stafford area, noted that there has been a lot of discussion about equity, but the project also needs to consider that West Linn residents will be paying 256% more than the rest of Oregon residents. John also brought this up with FHWA to tell the agency that West Linn residents are being burdened more than anyone else. John said that there is a fear that tolling will go ahead because OTC shared a gantry will be installed in 2025. He also said he heard that electric cars are the need for revenue in the state, but electric vehicles are less than 2% of all cars in Oregon so that can't be the problem. John said that people are more willing to vote for a gas tax increase and they want to see something done. He commented that diversion [mitigation] is not working in the area and expressed concern that OTC's claim that this would be paid for by grants would not be enough.
- John Ley emphasized a point by Commissioner Savas that the project is creating problems that don't need to be created. Additionally, President Peterson said that the project needs to know what problems are attributable to tolling and what are attributable to other issues. John said that 100% of the traffic diversion will be caused by tolling, not any other aspect of the Abernethy project. If the project eliminates tolling on all lanes, diversion will be eliminated. John shared that in 2018, the Value Pricing Committee was given eight tolling alternatives to consider, and only one option created the most favorable result to build a new lane in each direction and only toll that lane. He said that the project needs to pivot back and reconsider that option. He asked what would happen if IP4 is adopted by the citizens and the projects do not receive \$1.1 billion in revenue.



# **5 Project Updates**

James Paulson shared how EMAC is using the extended timeline to get more feedback and understanding. There will be a joint ODOT-EMAC accountability workshop in July to discuss a framework for an ongoing accountability structure. James shared that EMAC has been working to quantify the progress on activities and actions that have been implemented.

Commissioner Fai shared an update on the STRAC. The committee has finished discussions on enrollment, payment, enforcement, and data privacy. They will be moving to part two discussions that will include low-income program operations, process for rate setting and adjustments, discounts, exemptions, and rates by vehicle type. Commissioner Fai suggested that the draft rules be shared with RTAC members to review.

Mandy Putney shared an update on RMPP and next steps. The project team is developing options that build on the Proposed Action shared during the winter 2022-23 public comment period. In July 2023, options and draft performance criteria will be shared with partner agency staff and RTAC. In September 2023, information about toll rate assumptions and performance based on modeling will be shared. The next step will be to identify options for the NEPA process.

- Commissioner Savas asked why the price of gas in Oregon has gone up so much compared to the rest of the county. He expressed concern that safety and climate issues will not be achieved without transit, and yet transit is not seen as a viable alternative. Commissioner Savas asked if any of the gas tax is available, and commented there is a need to address the transit funding gap.
  - Director Strickler agreed that there is a transit funding issue. There is limited funding and a lot of need, which is becoming more pronounced in the transportation space. He noted that the funding issue is not unique to ODOT, and other jurisdictions also have funding gaps. Director Strickler said that ODOT wants to be part of the solution. The transportation needs spread across the entire state; it needs to be more than one mode, more than one option, and needs to be focused on making a better transportation system. Director Strickler said that he welcomes the conversation and acknowledges the tension between revenue and project needs.
- Mayor McEnerny-Ogle recognized and celebrated the approval of funding for the interstate bridge.

# 6 Next Steps and Close Out

David recognized that this is a new format for RTAC meetings to focus on conversation over presentation and said that format will continue for future meetings. He reminded RTAC members to fill out the meeting evaluations to provide input on how to improve future meetings.

The next RTAC meeting will be on Monday, July 24th.



# 7 Action Items

The project team heard requests for additional information during the meeting. Action items for the team are:

- Senior staff will discuss and analyze additional tolling scenarios, per Director Strickler's direction.
- Distribute draft Toll Rules from STRAC to RTAC members.

# 8 Written Public Comment

For public comments sent before the meeting, see attached.

# 9 Meeting Evaluation

Two members submitted a paper meeting evaluation. One member submitted an online meeting evaluation.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Question 1: I clearly understood the agenda, the meeting objectives, and knew what the group was trying to accomplish during this meeting.	0	0	0	2	1
Question 2: Members had a chance to speak and contribute to items under consideration.	0	0	0	1	2
Question 3: The meeting was well facilitated.	0	0	0	2	1
Question 4: There were adequate options for public comment.	0	0	0	1	2

#### Comments received from members:

- **Commenter 1:** Great meeting! David is a strong facilitator!
- **Commenter 2:** Thank you for addressing Commissioner Mapps' concerns so directly and clearly during the June RTAC meeting. We appreciated the time the agency took to demonstrate that it is listening to regional stakeholders.



# Regional Toll Advisory Committee Meeting 8 Public Comments

Below are the comments received via the Oregon Tolling email and the toll program web comment form directed to the RTAC before the June 22, 2023, 11:00 a.m. deadline. A total of six comments are included in this packet.

Date received	6/7/2023
Source	Email
From	Jaslyn Cincotta
Subject	RTAC Public Comment

I am strongly against tolling in Oregon.

Tolling disproportionately impacts the working class, and not the businesses who profit from and rely upon our roads. Please see research from the University of Washington on the topic: https://depts.washington.edu/trac/bulkdisk/pdf/721.1.pdf

Oregon needs a progressive option that correctly assigns the costs to those profiting from the system.

Sincerely,

Oregon voter

Date received	6/8/2023
Source	Email
From	Jacob Lama
Subject	RTAC Public Comment

#### Hello,

I hope this email finds you well. As a resident of Clackamas County for the past 8 years, current resident of Washington County, and worker in Multnomah County; I am writing to express my concerns regarding the proposed tolling on sections of interstate I-205 and I-5. While I understand the need for bridge improvements and lane expansions, I believe tolling to be a regressive measure with negative implications for our community.

Firstly, tolling disproportionately affects those with lower-income who rely on these highways for their daily commute. Such tolls place an additional tax burden on already strained household budgets, particularly with the high inflation we're experiencing. Furthermore, tolling can contribute to increased traffic congestion on local roads, impacting residents and businesses reliant on efficient transportation routes.

Rather than burdening the public with tolls, I urge the Oregon Department of Transportation to explore alternative funding mechanisms for these much-needed infrastructure improvements. Consideration



### RTAC Public Comment / January 17 - April 20, 2022

should be given to exploring a mix of state and federal funding options, as well as innovative financing methods that distribute the costs more equitably across the community. Additionally, I encourage ODOT to prioritize efficiency and explore more sustainable solutions that promote mass transit, ridesharing, and other forms of transportation that reduce congestion and carbon emissions. By investing in these alternative modes of transportation, we can alleviate traffic issues while simultaneously addressing environmental concerns.

I appreciate your attention to this matter and the opportunity for public comment. I hope that you will carefully consider the concerns raised by myself and others who share similar perspectives. Together, we can strive for a transportation system that is equitable, sustainable, and beneficial for all members of our community.

Thank you for your time and consideration.

Date received	6/20/2023
Source	Voicemail
From	Scott Burke
Subject	

Hello, my name is []. I'm calling on behalf of myself and my wife. We're residents of West Linn, and this is a comment for the I-205 tolling proposal, and I think that it would also maybe fall under RTAC public comment as well. We believe that any kind of toll on I-205 will make additional traffic going through the neighborhoods of the West Linn area for those that are potentially trying to either avoid the tool or avoiding any kind of backup that the tolling lanes create on the freeway. We already experienced people trying to avoid just the backup on the freeway now, and think it will get much worse should there be any kind of toll plaza on I-205. Thank you for hearing our comments. Bye.

Date received	6/20/2022
Source	Email
From	Kyle Nickels
Subject	Waste of time/money

All this meeting and discussion is wasting taxpayer money and time. You've already decided. You will toll no matter the cost to the taxpayer and business.

The fact that you haven't looked to ways of funding without tolling is the telling tale

Date received	6/20/2023
Source	Email
From	Kerri Fiero
Subject	Public comment Total abuse of power we dont want it either do our elec ted Reps

To Whom it may concern,

Tolling on 205 not fair to oregon city residents at all. Streets are already Bogged down clogged up and there are a few thousand Apartments and low income apartments being built on those bogged down roads. it takes 5 consecutive traffic lights to get through the one light at 213 to get across it during traffic



#### RTAC Public Comment / January 17 – April 20, 2022

hours. There have been NO no road improvements already and more apartments and homes being built other places also. Now you want to add all the traffic getting off highway to avoid toll area. Also it will cause problems with Police, Fire, ambulance, first responders, County and state workers, PGE will have problems getting to places and doing there work with so much more traffic and traffic problems. So you will be risking lives and needed services in all of our area and if you think thats ok you need to think again. There are 2 rivers we cant get across to go anywhere you have us boxed in we don't have shopping other than fred meyers and groceries but other shopping none that we will be able to get to Oregon city is NOT equipped to handle this at all, and we wont be able to get to even Clackamas in timely manner. It already takes 30-45 Min's one way, and you want us to pay the toll also if we get on Highway which is one of 2 options to cross rivers and Both would be tolled. The only ways across the river except the bridge down town Oregon city that gets hugely all blocked up already and is just 2 lanes it blocks up down town and parts of west linn but you want to add to that. The road to avoid 205 S. is also very backed up This could cost us hours. The area you picked is not appropriate with the rivers there and such small roads in Oregon city. It will cause a bottlenecks, accidents, road rage, hassles for Police fire and all needed services and first responders, It will also cause increased prices for everything as trucks will charge more to stores and we will get that expense also and so much frustration you will be trapping those of us who live in oregon city. I have lived here over 30 years. You also are not considering all the apartments going in that are going to cause a huge amount of more traffic already and the fact that Oregon City has no real shopping or a motel we are not as a town equipped to handle this our roads are already filled some dont have hours to spend to go elsewhere to shop and Some cant sit that long due to disabilities. Just so very wrong Toll roads dont work anywhere else why do you think they will work here you are wasting more money on doing this using our tax dollars for something we dont want at all, nobody does in this area, especially in Oregon city.. Lets us vote on it and let those it effects the most as we live near by have the say. You also did not make necessary road enhancements and you did not take our livability into consideration. I would move if if could but I'm disabled and Can not physically do what it takes to move nor can I afford to hire people to do it for me. and just going to doctor will cost me \$8 to go one exit and back really 1/2 to 3/4 mile and about 1 hour of time this would double that time I have no way to avoid the toll as I have to cross both rivers and i cant sit for over 45 mins or it damages my spine So what am I to do let you cause me harm. That is just so very wrong. I dont even leave Oregon city but would have to pay a toll twice to Doctor or to get my prescriptions. The small bridge is always backed up already. It will cause people their jobs and lively-hoods by being late due to huge traffic issues in our town and being unable to get to work besides the cost of tolls So Many do not have an extra \$180 a month and more due to trucks and services having to pay tolls and economy thats already to high going up more. The added costs and problems will cause more homelessness. More crime when we have little police or law and order, and cause more anger outrage and frustration. The State is causing more problems to their people than good. Its just greed by our Government and leaders that does not use tax money efficiently as it is and does not care about the people who pay the taxes. You will be causing harm to the people of this area. I am so against 205 being a toll road and really believe you did not take the residents Of Oregon City being trapped and highly burdened into consideration. at least give us free tolls, but would prefer this whole idea being stopped its a waste of time money and causes more problems than its worth as your toll road will cause us so many problems and heartache just with the traffic coming in our town to avoid the toll, as well as added time loss in our schedules less services and problems for buses first responders and more. You Will be ruining lives already having to work 2 jobs to make it and cutting out any real family time by just adding even more travel time. Just so very wrong. Obviously the People in this area do not matter to Our Leaders or Our Government The Oregon city Government officials are all against this but you wont listen to reason. Cause a worse economy cause delays in first responders and needed care Cost people their homes Jobs and just ruin lives that is not right. So very wrong to Use a trap to get more tolls and Harm the residents that live near by. Just so very WRONG and would harm many of The people who pay taxes that pay your salary. We are your boss not the other way around. ITS A Total abuse of power to be doing this tolling Nobody wants it except greedy Government what you have already spent on this would have made some of the modifications there is so much Goy, waste the top leaders of City, County, and State Reps dont want this to happen Nor do the People of this State quit wating OUr money on something we dont want could hurt us and cause huge problems for us. Stop this



#### RTAC Public Comment / January 17 – April 20, 2022

stupid WRONG expensive project now and quit wasting our Money Remember we are your boss We elected you to do right by us and you are NOT. Why would you think this is OK at all WE THE PEOPLE do not want this at all Stop The toll on 205 Please......Kerri

Date received	6/21/2023
Source	Email
From	Grant Braun
Subject	RTAC Public Comment

NO TOLL.

And keep adding lanes. We all wanted California style housing growth. Build the roads!

NO TOLL.



# Discussion on Other Pricing Scenarios

David Ungemah, National Pricing Expert





## What we've heard:

- Interest from some RTAC members in exploring concepts that would apply congestion pricing on one or two lanes of I-5 and/or I-205.
  - RMPP with I-205 Toll Project (*includes a toll for Abernethy bridge only*)
  - RMPP without the third lane on 205 (Now a base assumption)
  - Potential express lane concepts?
  - Any others?
- We will be discussing express/managed lanes today and want to hear input on work done to date and if there are still outstanding questions



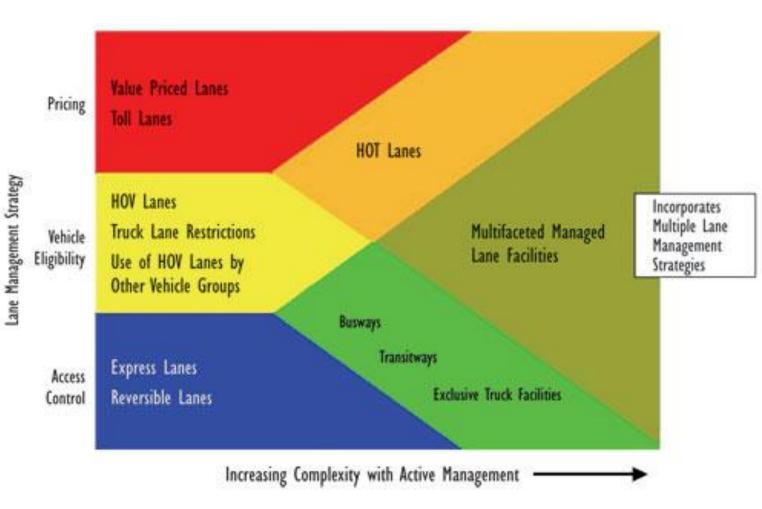


# Terminology

 Managed Lanes (ML) - A lane or set of lanes within a freeway, separated from the general-purpose lanes, that incorporate a high degree of operational flexibility through pricing, vehicle eligibility requirements, and access control.

### Also known as...

- High Occupancy Vehicle (HOV) Lanes (no toll to use, but must be a carpool)
- High Occupancy Toll (HOT) Lane (HOV toll-free, SOV pays toll)
- Express Toll Lane (all users pay toll)







### Managed Lanes: One Type of Road Pricing

### Managed Lanes



Only Managed Lanes Users Pay Option to Use Priced Managed Lanes or Non-Priced Generalpurpose Lanes

It's a <u>Lane-Based</u> Choice Common in the U.S.

### Priced Roadways



All Users of Facility Pay Option to Use Priced Facility or Use a Different Non-Priced Road

#### It's a <u>Route-Based</u> Choice

Common on legacy toll roads using static toll rates Very limited use of variable pricing

### Cordon Zones



All Entering / Within Zone Pay Option to Use Transit / Active Modes or Change Location of Trip

#### It's a <u>Destination- and Mode-</u> Based Choice

Common in Europe and Asia Untested in North America but will be implemented in New York





### Urban Mobility

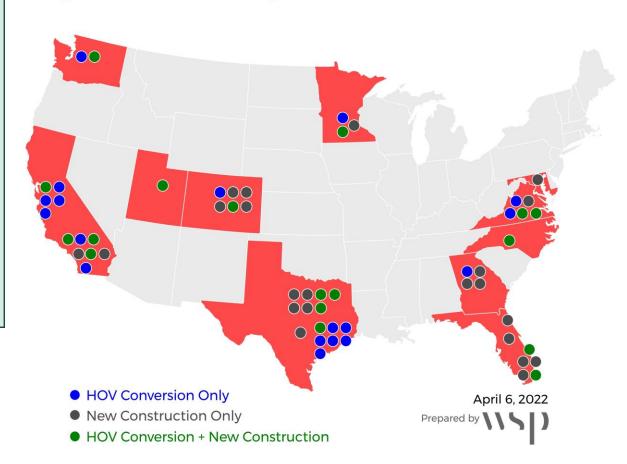
### How to build a Managed Lane Solution?

- HOV Lane Conversion
- New Lane Construction
- Both

(Options allowed under Federal Law)

Urban Mobility

### **Operational Express Lanes in the U.S.**



#### California

SR-91 Orange, 1996 I-15 San Diego (orig), 1997 I-680 SB Alameda, 2010 I-15 San Diego (rebuilt), 2012 I-110 Los Angeles, 2012 SR-237 / I-880 San Jose, 2012 I-10 Los Angeles, 2013 I-580 Alameda, 2016 SR-91 Riverside, 2016 I-680 Contra Costa, 2017 I-880 Hayward, 2020

I-15 Riverside, 2021

I-25 Denver, 2006

I-25 Adams, 2015 / 2020

US 36 Boulder, 2015

I-70 Mountains, 2016

C-470 Littleton, 2020

I-25 Castle Rock, 2021

Colorado

Texas I-10 Houston (orig), 1998 I-10 Houston (rebuilt), 2009 I-45 Houston (south), 2012 I-45 Houston (north), 2012 US 59 Houston (north), 2013 US 59 Houston (south), 2013 US 290 Houston, 2013 DFW Connector, 2014 North Tarrant Express, 2014 I-635 Dallas, 2015 Loop 1 Austin, 2016 I-30 Dallas, 2016 I-35E Dallas, 2017 I-35W Ft. Worth, 2018 Midtown Express Dallas, 2018

Minnesota

I-394 Minneapolis, 2005

I-35W Minneapolis, 2009

I-35E St. Paul, 2015

North Carolina

I-77 Charlotte, 2019

#### Florida

I-95 Miami, 2008 I-595 Ft Lauderdale, 2014 I-95 Ft Lauderdale, 2016 I-295 Jacksonville, 2017 I-75 Miami, 2018 SR 826 Miami, 2019

Virginia I-495 D.C., 2012 I-95 D.C., 2014 I-66 D.C. (inside beltway), 2017 I-64 Norfolk, 2018

I-15 Salt Lake City, 2006

#### Georgia

I-4 Orlando, 2022

I-85 Atlanta, 2011 I-75 Atlanta, 2017 I-85 Atlanta (north), 2018 I-575 / I-75 Atlanta, 2019

Maryland I-95 Baltimore, 2014

#### I-395 D.C., 2019 Washington

SR 167 Seattle, 2008 I-405 Seattle, 2015

Utah

#### Oregon Department of Transportation

### Policy Options for Agencies

- Price, Access, and Eligibility
- Dynamic vs Time of Day Pricing
- **Discounts and Exemptions**
- Active Hours of the Day

### Minimum Requirements

- Regular, Recurring, Severe Congestion
- At Least 3 Lanes
  - (2 General Purpose + 1 Managed Lane)
- Continuous travel lane on interior







### **Example**: Washington I-405 Express Toll Lanes

- 17 mile north-south corridor in Seattle, WA
- 1 to 2 managed lanes in each direction
- HOV lane conversion + new lane construction
- All electronic tolling using transponder
- Tolls vary based on real time traffic conditions
  - Tolls: \$0.75 to \$10 per trip
  - HOV 3+: No toll

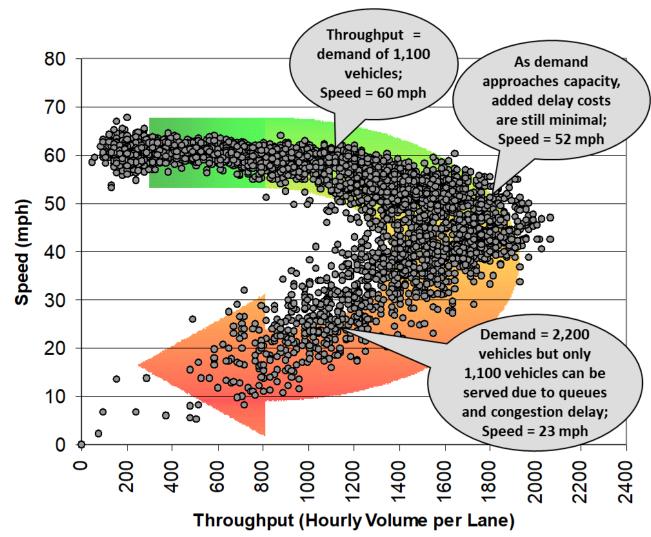




### Urban Mobility

## Why do agencies implement managed lanes?

- Manage demand
  - Provides reliable travel times <u>for</u> priced managed lane users
- Generate revenue
  - Funds some costs of construction
  - Ongoing maintenance and operations





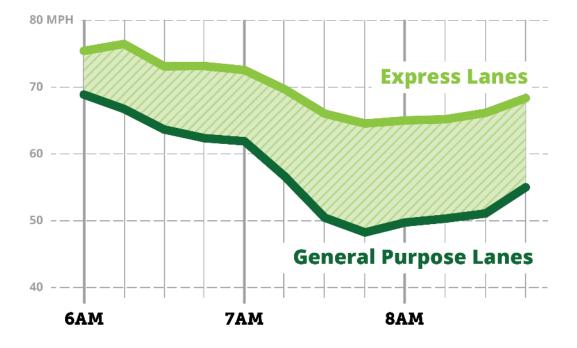


# **Example**: Colorado U.S. 36 Managed Lanes (build 1 ML in each direction)

### WESTBOUND Morning Peak

**Urban Mobility** 

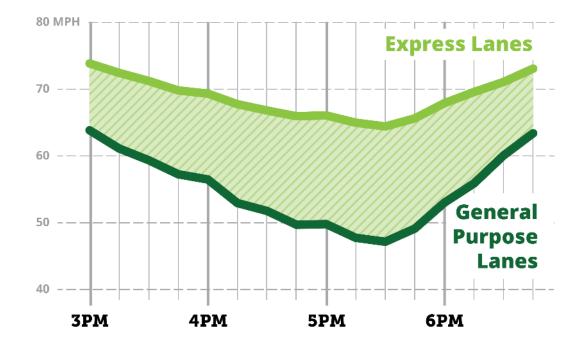
STRATEGY



**Peak Period Speed Differential** 

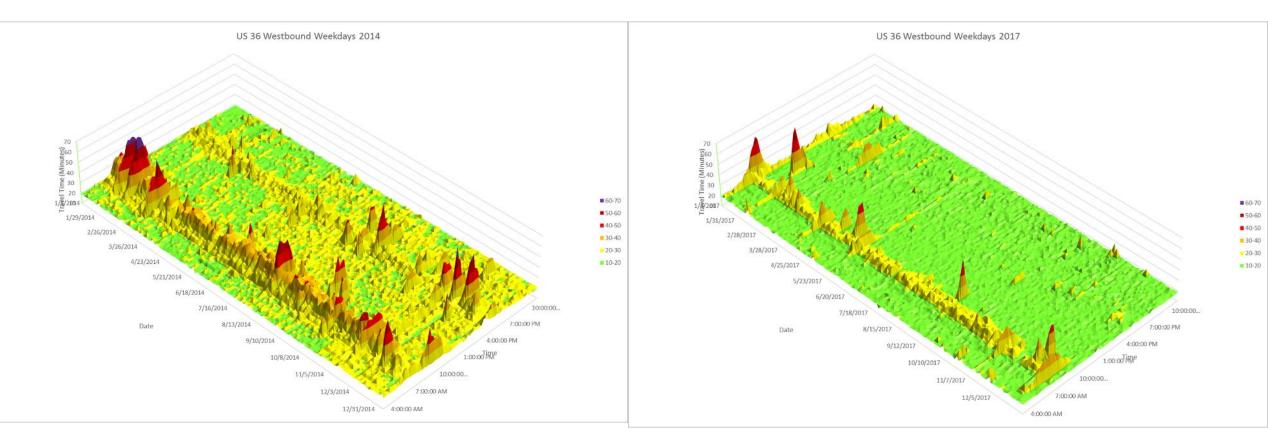
- AM Period 7 to 16 mph (Westbound)
- PM Period 10 to 17 mph (Eastbound)







# **Example**: Colorado U.S. 36 Managed Lanes (build 1 managed lane in each direction)







### **Opportunities for Managed Lanes Revenue**

- Ongoing operations, maintenance, and enforcement of toll system
- Repayment of loans / activity bonds
- Matching funds for federal grants
- Pledged revenue for concession agreements

### Challenges with Managed Lanes for Revenue

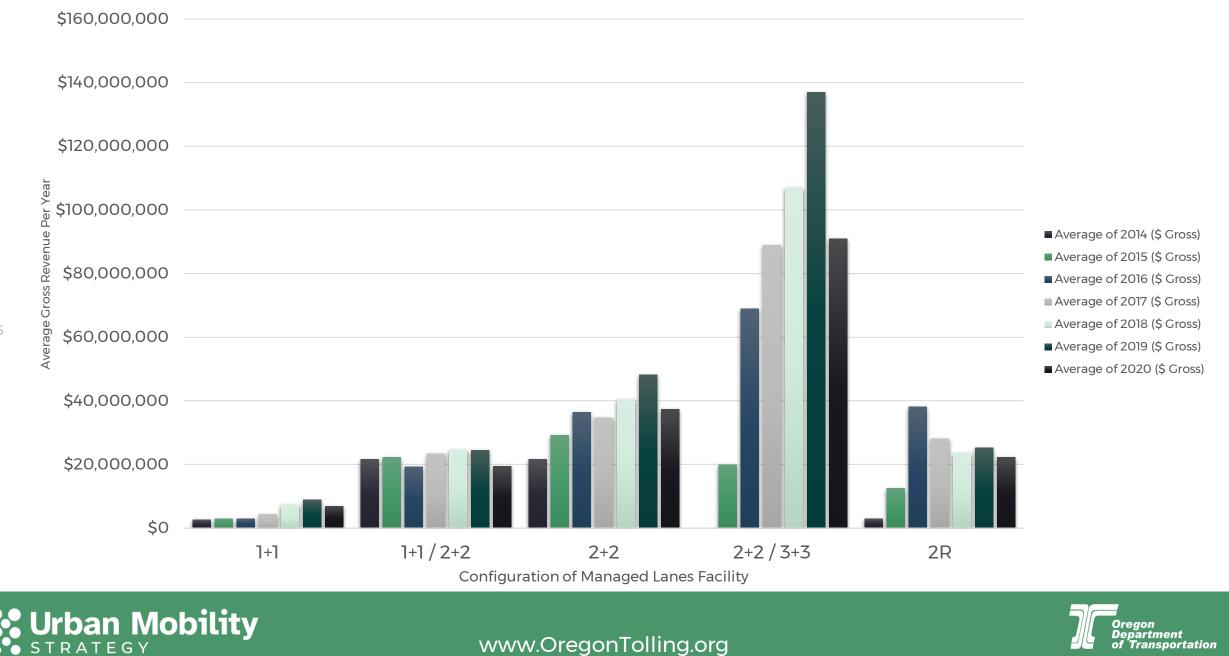
- Single lane facilities generate significantly less revenue than dual lane facilities
- Revenue is often highly variable, based upon traffic conditions
- In most cases, widening costs are only partially covered by revenue



44



Average of Managed Lanes <u>GROSS</u> Revenue (2014 - 2020)



45

www.OregonTolling.org

Department

of Transportation

### **Example**: Colorado Managed Lanes

I-25 (20th to US 36)

I-25 (US 36 to 120th)

US 36 (I-25 to Table Mesa Drive)

C-470 (I-25 to Wadsworth)

I-70 Mountain Express (Eastbound)

I-70 (Brighton Blvd to Chambers)

I-25 (Monument to Castle Rock)

I-70 Mountain Express (Westbound)

Santa Fe Dr / US 85 (Mississippi Ave to Bowles Ave)

Urban Mobility

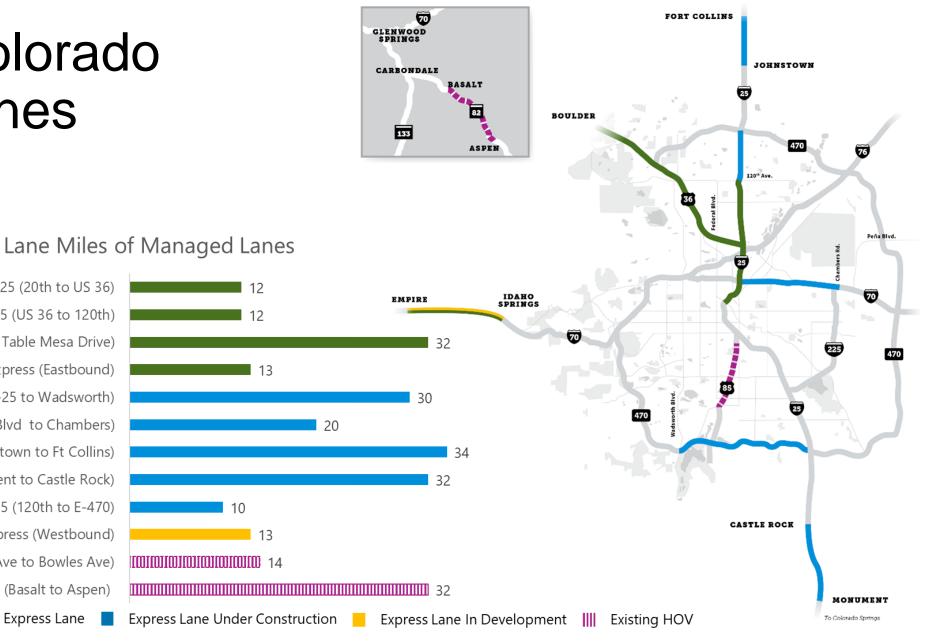
STRATEGY

I-25 (Johnstown to Ft Collins)

I-25 (120th to E-470)

CO 82 (Basalt to Aspen)

Operational Express Lane





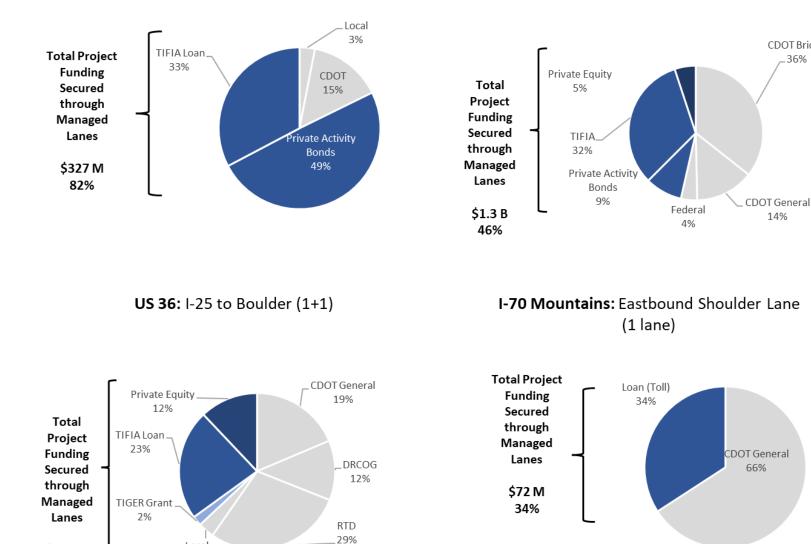
I-70 Denver: I-25 to I-225 (1+1, 2+2)

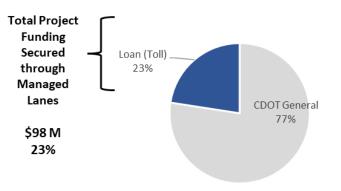
CDOT Bridge

\_36%

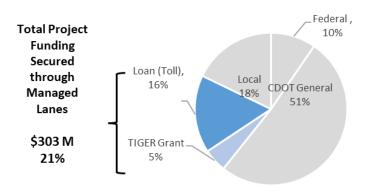
14%

#### I-25 North: 120th Ave. to E-470 (1+1)





I-25 North: Johnstown to Fort Collins (1+1)



### Urban Mobility

\$497 M

37%

Local

3%



## Building New Managed Lanes

### **Benefits**

- Permitted under Section 129
- New capacity + managing demand = congestion reduction
  - Much better trip reliability and speeds in the managed lane
  - Better trip reliability and speeds in general purpose lanes
- Attracts vehicles from congested arterials
- Increases vehicular throughput

### Disadvantages

- Very high cost to widen in region
- Substantial property impacts and displacement
- Toll revenue only comprises a portion of total funding necessary

   Commitment to fund from other tax revenue
- Increase in congestion at facility terminus and access points
- Increase in VMT / GHG (depending upon VHT change)





# **Converting General Purpose Lane** to a Managed Lane

### **Benefits**

- Better trip reliability and speeds in the managed lane
- Avoids cost of widening / reconstruction

### Disadvantages

- Not permitted under Section 129
- Much worse congestion, trip reliability, and speeds in general purpose lanes
  - Reduction in vehicular throughput
  - $\ensuremath{\circ}$  Increase in diversion to arterials
  - Increase in congestion upstream of managed lanes





### The Context for Managed Lanes in Portland on I-5 and I-205

- HOV Conversions
  - Permitted under Section 166
  - I-5 HOV lane northbound
- New Construction
  - Permitted under Section 129
  - Minimum widening to 3 total lanes (2 GP + 1 ML):
    - I-205 (Stafford to West Linn)
    - I-5 (Central Portland)
    - Reconstruct interchanges for I-5, I-405, and I-205
    - Bridges / bottleneck constraints
- General Purpose Lane Conversions
  - Not Permitted

**Urban Mobility** 

 Requires special approval by USDOT Secretary under Value Pricing Pilot Program





Do you have any clarifying questions for David?

# Is additional information needed?



