

# I-405 / SR 167 Executive Advisory Group Summary of Meeting #2

Wednesday, Feb. 27  
10 a.m. – Noon  
Kirkland City Hall

## **Executive Advisory Group members in attendance:**

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|--|---|
| <input checked="" type="checkbox"/> Fred Butler, Sound Transit                           | <input checked="" type="checkbox"/> Rick Krochalis, FTA   |
| <input checked="" type="checkbox"/> Mayor Suzette Cooke, City of Kent                    | <input checked="" type="checkbox"/> Dan Mathis, FHWA  |
| <input checked="" type="checkbox"/> Councilmember Dave Gossett, Snohomish County Council | <input checked="" type="checkbox"/> Commissioner Dan O'Neal, Washington State Transportation Commission |
| <input checked="" type="checkbox"/> Mayor Joan McBride, City of Kirkland                 | <input checked="" type="checkbox"/> Ron Posthuma, King County   |
| <input checked="" type="checkbox"/> Doug Jacobson, City of Renton                        | <input checked="" type="checkbox"/> Councilmember Kevin Wallace, City of Bellevue                       |

## **I-405/SR 167 Tolling Project Team and Staff**

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|--|--|
| <input checked="" type="checkbox"/> Craig Stone, Assistant Secretary, Toll Division, WSDOT | <input checked="" type="checkbox"/> Karl Westby, I-405 Project Team    |
| <input checked="" type="checkbox"/> Kim Henry, I-405/SR 167 Program Director               | <input checked="" type="checkbox"/> Colleen Gants, WSDOT Toll Division |
| <input checked="" type="checkbox"/> Denise Cieri, I-405/SR 167 Deputy Program Director     | <input checked="" type="checkbox"/> Amy Danberg, I-405 Communications  |
| <input checked="" type="checkbox"/> Brent Baker, Parsons Brinckerhoff                      | <input checked="" type="checkbox"/> Anne Broache, I-405 Communications |

## **Office of the State Treasurer**

- Wolfgang Opitz

*Note: These meeting notes are intended to capture the discussion at the meeting including questions and comments from the group. This is not intended to be a formal testimony or complete transcript of the meeting. Meeting materials including the PowerPoint presentation are available on the Web at: <http://wsdot.wa.gov/tolling/eastsidecorridor>*

## **I. Welcome and Opening Remarks**

Craig Stone, Assistant Secretary for the WSDOT Toll Division, called the meeting to order and invited everyone to introduce themselves. He reviewed the group's charge and the meeting agenda. He emphasized that the focus for the second meeting is to consider carpool policy for the I-405/SR 167 express toll lanes and, in particular, a transition from 2+ to 3+ carpools.

### **Discussion**

- Bellevue Councilmember Kevin Wallace asked about the recent transportation funding package proposed by the legislature and said it would be helpful to get a more complete funding picture in the near future. Craig Stone clarified that the package proposed \$675 million for I-405 and commented that it remains to be seen how the legislature works through this process.

## **II. MAP 21**

Dan Mathis, Division Administrator for the Washington Division of the Federal Highway Administration, gave an overview of the federal MAP 21 legislation and its relationship to HOV and express toll lanes. He noted that MAP 21, passed last summer, covers a period through the federal fiscal year 2014.

Mathis gave a brief history of HOV policy at the federal level. He noted that HOV facilities were pioneered in the early 1970s and have proven to be very effective, while express toll lanes began in the 1990s and are growing in popularity across the United States. He showed a map of 14 express toll lanes facilities in operation nationwide and others under construction. He highlighted seven current facilities that allow some sort of federal discounted access for 3+ carpools.

Mathis gave a summary of federal tolling policy, including MAP 21, which makes it more mainstream to toll new capacity on highways. He also noted that MAP 21 includes the possibility of federal sanctions if HOV facilities do not meet their performance requirements of 45 miles per hour, 90 percent of the time. He noted that it is not clear what these sanctions will be yet.

### **Discussion**

- Ron Posthuma from King County asked whether the HOV provisions are specific to toll facilities or apply to all HOV facilities. Mathis replied that yes, the provisions apply to all HOV facilities. Posthuma wondered about the implications for I-5.
- Carol Thompson from Community Transit asked whether there was a timeframe associated with the sanctions. Mathis replied that there is no timeframe at the moment but that the agency will need to have discussions about this topic.
- Fred Butler from Sound Transit asked how "new capacity" is defined as it relates to tolling agreements. Mathis replied that any new lanes are considered new capacity, so newly added lanes could be tolled without a special agreement as long as existing through lane capacity is not tolled. Craig Stone clarified under MAP 21, that converting HOV lanes to express toll lanes would also be possible without a special agreement.
- Councilmember Kevin Wallace of Bellevue asked about the federal sanctions and FHWA's role in issuing them. Mathis said the agency has not discussed potential sanctions but noted that in the past, sanctions for other violations have resulted in cuts to a state's federal highway funds. He said in the past there has been federal funding offered for HOV lane conversions but that currently, and in the immediate future, there is no such funding.

### **III. HOV System Performance Overview**

Kim Henry and Karl Westby gave an overview of the regional carpool system today and projections for the future. Kim Henry explained that the carpool system in the Central Puget Sound region faces challenges today, including multiple areas that do not meet their performance standard of 45 miles per hour, 90 percent of the time at peak travel periods. He said the whole region is considering express toll lanes as a potential solution to traffic congestion, as well as revenue generation for future corridor improvements. Kim highlighted the effects of this congestion on transit trips in the corridor.

Karl Westby presented a series of graphs about system reliability and traffic performance on portions of I-405 and SR 167 today and in the future. As an example, he showed that the southbound I-405 carpool lane south of SR 527 does not meet the performance standards more than 200 workdays per year, with particular problems during the morning commute. He showed that the SR 167 express toll lanes currently are working well, as they are below their capacity limit of 350 vehicles per 15 minutes, allowing some space for single-occupancy vehicles to buy into the lanes. But by 2020, this situation is projected to worsen, with 2+ carpool vehicle volumes expected to exceed the available capacity when the 40-mile express toll lanes corridor opens, thus offering no opportunity for buy-in to the lanes.

#### **Discussion**

- Commissioner Dan O’Neal of the Washington State Transportation Commission asked about pricing on SR 167 and whether continuing to increase the price would help to improve congestion in the express toll lanes. Craig Stone said that if the price hits \$9 and performance targets aren’t being met, the SR 167 express toll lane is open to carpool vehicles only.
- Mayor Suzette Cooke of Kent asked whether extending the SR 167 express toll lanes would result in higher demand for the lanes and “squeeze out” carpool riders. Karl Westby clarified that carpools are the first priority and that if the express toll lanes become too full, the price for non-carpools to buy into the lanes increases, with the goal of making the lanes less attractive to non-carpools. If the lanes do become too full, the lane will be closed to single-occupancy vehicles and open to carpool vehicles only.
- Dan O’Neal asked whether it is a federal requirement that 2+ carpools ride for free. Craig Stone said carpool exemptions can be for 2+ or 3+ vehicles. He noted that changing the definition locally has been a political landmine because of the large percentage of 2+ carpools.
- Mayor Joan McBride asked to see system performance graphs for 3+ carpools. Kim Henry said those graphs could be prepared and shown in the future if there is interest.

Henry reminded the group of the legislature’s direction—that the express toll lanes must operate at 45 miles per hour at least 90 percent of the time and generate sufficient revenue to cover their costs within two years of opening. He presented a snapshot of what other facilities around the nation have done with their carpool policy for express toll lanes (I-495 in Northern Virginia, I-85 in Atlanta, I-95 in Miami, I-10 in Los Angeles, and SR 91 in Orange County) and showed a brief news clip about the recently opened I-10 express toll lanes in Los Angeles.

Henry gave a brief overview of the policies that affect the carpool study scenarios that proceeding for additional analysis. He explained that WSDOT’s decision to adopt photo tolling on I-405 express toll lanes—similar to on SR 520—affects the scenarios in that it allows people without transponders to use the express toll lanes. He also explained that because of photo tolling, everyone will either need to

register their carpool or have a transponder in order to be able to tell the system when they are traveling as a carpool and not be charged.

Henry presented the two “bookend” carpool scenarios that the I-405 team is considering:

- 2+ carpool free
- 3+ carpool free

Henry then presented the two transition scenarios:

- 3+ carpool free at peak periods, 2+ carpool free at off-peak periods
- All carpool discount

For the transition scenarios, he showed examples of signage that drivers might see at various times of day.

Westby presented diagrams showing operational differences between today’s single HOV lane and a 2020 dual express toll lane system, using the Bellevue to Bothell area as an example. He showed that in 2012, speeds in both the carpool and general purpose lanes are slower than 45 miles per hour.

In 2020, with the addition of express toll lanes, those speeds are expected to increase to 55 miles per hour in the express toll lanes and 40 miles per hour in the general purpose lanes. The hours of delay experienced by travelers are also expected to drop. The speeds would increase and delays would decrease regardless of whether the lanes were priced so that 3+ carpools rode free at peak times or whether all carpools received a discount. There would be a slightly different occupancy mix for the vehicles in the express toll lanes, with more single-occupancy vehicles expected to travel in the express toll lanes under the 3+ carpool free scenario.

## **Discussion**

- Councilmember Dave Gossett of Snohomish County asked how much of the speed increases is related to adding another lane and how much is a function of managing traffic through the express toll lanes. Karl Westby responded that the changes result from a combination of both factors.
- Ron Posthuma asked what the assumed lane capacity per hour is. Westby responded that the model assumed 1600-1700 vehicles per hour in the express toll lanes.
- Councilmember Kevin Wallace of Bellevue asked how far a person gets to drive for a particular price. He voiced concern that the cost of traveling short distances is too high and asked for attention to the pricing structure. Westby explained that the price is distance related but also dynamic based on traffic levels in order to optimize movement in the lanes. For example, between Lynnwood and Bothell, there will only be one express toll lane, so prices may be relatively higher for the distance traveled because of higher congestion levels. These prices may be relatively lower, however, in the dual lane section between Bothell and Bellevue because of more capacity. Craig Stone noted that some other metropolitan areas have done their pricing by the mile but that WSDOT decided to do destination pricing for usability reasons. Wallace also asked whether technology exists to make carpool definition variable based on when congestion exists rather than using fixed hours. Craig Stone said such technology exists, but enforcement of a variable time definition would be difficult, and changing times may be more confusing for the public.
- Dan O’Neal said his sister-in-law was concerned about being able to read the information on the signs while driving past at high speeds. Kim Henry said WSDOT shares this concern and noted that focus groups were formed to test the signage. He said the goal is to make sure the signs are understandable even for people who do not use I-405 every day.



- Kevin Wallace asked if the team is considering mobile or in-car applications to allow people to get the sign information in other ways. Kim Henry said he expects technology will improve over time to allow real-time apps to be available.

#### **IV. Net Revenue Comparison**

Brent Baker of Parsons Brinckerhoff provided the group a preliminary overview of the revenue differences between the carpool scenarios under study. He started by reminding the group of the legislative direction from EHB 1382: that the express toll lanes between Bellevue and Lynnwood must generate sufficient revenue or the project will be terminated.

He outlined the six scenarios that have been evaluated financially and have been labeled with letters. Four of the scenarios were discussed earlier in the presentation (A) 2+ free, B) 3+ free, C) 2+ free off-peak, 3+ free peak, and D) carpool discount), and the analysis also carried forward two 3+ free scenarios, E and F, that did not account for photo tolling. One of these scenarios was modeled by WSDOT's consultant, and the other was modeled by the Washington State Transportation Commission's independent consultant. The team kept these two scenarios in addition to the four others in order to make an apples-to-apples comparison of revenue for a 3+ free carpool situation without photo tolling.

Baker explained how net revenue is calculated through subtracting various costs (toll collection, operations and maintenance, etc.) from gross toll receipts. He then provided a snapshot of the 40-year preliminary revenue projections for each scenario. He noted that the 2+ free carpool scenario was expected to generate the least revenue, and he pointed out that the all carpool discount scenario has strong revenue projections for 40 years but faced challenges in the critical first two years of operation.

Baker then presented tables showing preliminary revenue projections only for the first eight years. The scenarios not projected to meet the EHB 1382 requirement of covering costs by the first two years were:

- 2+ free
- Carpool discount

Baker noted that the revenue modeling results for the carpool discount scenario could change based on different assumptions, such as a different level of discount.

The scenarios that would meet the EHB 1382 requirement under the preliminary revenue estimates were:

- 3+ free
- 2+ free off-peak, 3+ free peak

#### **V. Carpool Policy**

Kim Henry and Denise Cieri presented a list of carpool policy issues that the I-405 project team has reviewed in comparing the four carpool scenarios.

These issues are system reliability/operations, toll rates, net revenue, public acceptance, usability, enforcement, and regional operations/future decisions.

The table on the next page summarizes this comparison.



Factor	2+ Carpool Free	All Carpool Discount	3+ Carpool Free Peak; 2+ Carpool Free Off-Peak	3+ Carpool Free
<b>System reliability/ Operations</b>	ETL overcrowded; Doesn't meet MAP 21 or EHB 1382 requirements	ETL managed to allow maximum throughput; Meets MAP 21 and EHB 1382	ETL managed to allow maximum throughput; Meets MAP 21 and EHB 1382	ETL managed to allow maximum throughput; Meets MAP 21 and EHB 1382
<b>Toll Rates/Pricing</b>	Less buy-in opportunity, so toll rates are higher; 200 days/year HOV only	Rates are low with more buy-in opportunity, more people at lower rates	Rates are low with more buy-in opportunity, more people at lower rates	Rates are low with more buy-in opportunity, more people at lower rates
<b>Net Revenue</b>	Doesn't meet two-year revenue requirements; low revenue	May not meet two-year revenue requirements; depends on discount; long-term high revenue	May meet two-year revenue requirements; similar to 3+ carpool; long-term high revenue	Should meet two-year revenue requirements; long-term high revenue
<b>Public acceptance</b>	Easy – Early acceptance but decreasing benefits in future	Hard – all carpools pay (3+ and 2+); no free rides during congested times; prices will increase over time	Somewhat easy – Requires education as to benefit during peak, but 2+ can still get free ride during off-peak hours	Hard – initial acceptance hard but benefits better understood over time
<b>Usability</b>	Easy to understand – Consistent throughout the day	Somewhat easy to understand – Consistent throughout the day	Somewhat easy to understand	Easy to understand – Consistent throughout the day
<b>Enforcement</b>	Somewhat easy – Large number of carpools to monitor but easier to detect	Somewhat easy – Large number of carpools to monitor but easier to detect	Somewhat hard - Harder to detect during peak but smaller number to check; transition period issues	Somewhat hard – Harder to detect but smaller number to check
<b>Regional operations/Future decision</b>	Not effective regional solution; does not address performance	Regional solution; potentially no future decision needed	Harder to apply consistently on a regional basis; may require future change in peak period definitions	Regional solution; no future decisions needed

## Discussion

- Mayor Suzette Cooke asked about the reality of enforcement of carpools in the express toll lanes. Kim Henry said WSDOT has met with counterparts throughout the country and Washington State Patrol about enforcement and that perception of good enforcement is very important. WSDOT will continue to have conversations with Washington State Patrol about the best way to do enforcement. Denise Cieri noted that the I-405 team has involved WSP early in discussions about designing the facility, including appropriate shoulder widths at locations close to toll gantries, in order to ensure they have appropriate visibility. Brent Baker said the net revenue modeling includes specific costs for enforcement.
- Fred Butler of Sound Transit asked if there is specific data on toll evasion rates. Kim Henry said this is a topic of continuing discussion and that different facilities around the country manage toll evasion differently.
- Commissioner Dan O'Neal suggested adding another scenario for consideration: requiring all vehicles to pay to enter the express toll lanes at all times, rather than exempting carpools, vanpools, or transit. He suggested this option would save on administrative costs and reduce enforcement challenges. Ron Posthuma of King County said that if that were an option, it made sense simply to toll the entire road, not just a portion of it. Craig Stone spoke of an example in Austin, Texas, where express toll lanes are new and free only to registered vanpools and transit. He also noted that speed and reliable travel for transit is the chief goal of the HOV system. Carol Thompson of Community Transit noted that the existing legislation requires that registered vanpools and transit travel for free in the I-405 express toll lanes, and Kim Henry confirmed that statement.



- Mayor Suzette Cooke asked whether motorcycles will ride free in the express toll lanes. Craig Stone said a decision has not yet been made by the Washington State Transportation Commission, which decides exemptions.
- Councilmember Dave Gossett asked whether the group considered a discount at peak times for 2+ carpools. Kim Henry said the group did consider this option but was limited by technology. This change would require a 3-position switch on transponders, but the transponder system selected by WSDOT cannot accommodate more than a 2-position switch. Craig Stone said it would be too late in the process to change the technology and that enforcement would also be a challenge.
- Mayor Suzette Cooke asked whether using a smartphone app to declare a carpool would be considered “texting” while driving. Kim Henry noted that the expectation is for people to do a little advance planning when using such apps.
- Mayor Suzette Cooke and Councilmember Kevin Wallace both expressed concerns about the impacts to local streets from tolls on highways.
- Councilmember Kevin Wallace said the analysis of the carpool scenarios does not include a number of factors that he feels are important to consider, including the impact on the general purpose lanes. Kim Henry agreed that carpool policy is complex, with many factors to consider. Karl Westby noted that the models created for express toll lane usage are robust and include elements such as intersections, ramp meters, grades, and mix of vehicles.
- Fred Butler of Sound Transit said he was concerned that tolling policy for the region is being set in a piecemeal way. Craig Stone noted that there is a guiding vision, Transportation 2040, for the region that discusses tolling as a way of improving regional traffic flow. He noted that regional consistency in tolling is very important to WSDOT and that the EAG is on the leading edge of helping to set this policy.

## **VI. Office of the State Treasurer**

Wolfgang Opitz from the Office of the State Treasurer provided an overview of the state’s system for borrowing and financing projects. He showed a breakdown of the borrowing methods that Washington uses to pay for capital and transportation projects, including GARVEEs, which were specific to financing the SR 520 bridge, and GO bonds. He said that Washington will soon issue toll-only backed bonds for the first time in recent memory to pay for part of the SR 520 bridge costs. He also pointed out that the state’s debt limit was 9 percent until November 2012 but was recently lowered to 8 percent.

Opitz explained that the Treasurer’s Office will be working to “impersonate” investors reviewing the express toll lanes project and will advise the group on the best ways to keep the costs of borrowed money as low and contained as possible.

Opitz noted that investors will not care about the policy details of a given express toll lanes project. Rather, investors will consider whether debts will be paid back in a timely manner, whether there will be revenues throughout the life of the project and reserves committed, and whether toll rates are set by a non-political entity. He emphasized that investors want to see familiar proposals. He said the Treasurer’s Office will be arguing for level debt, akin to a fixed-rate mortgage, for money that is borrowed.

## **VII. Public Comment**

- Will Knedlik, a board member of the Eastside Transportation Association, said the public needs reasonable, good data and transparency in order to support tolling. He said the ETA has been meeting with the I-405 project team for years and said the projected toll price numbers being shown at the day’s meeting conflicted with previous numbers he had seen about the project.



- Sonny Putter, a former Newcastle councilmember, said the group must move as quickly as possible to adopt a 3+ carpool policy in the entire system and find a constructive way to do a transition away from 2+ carpools. He said the public will accept tolling over time, just as they have with the SR 520 bridge.

### **VIII. Wrap up and Adjourn**

Craig Stone thanked the group for attending the meeting and announced that the next meeting will take place at Kent Commons on the afternoon of Wednesday, April 3.