Washington State Department of Transportation

I-90 Bellevue to North Bend Corridor Study
Corridor Working Group Meeting #5
Monday, January 12, 2009
Issaquah City Hall NW

# Meeting Summary

## In Attendance

### CWG Members

Jennifer Lindwall, King County Department of Transportation
Jim Arrowsmith, King County METRO
Bob Brock, City of Issaquah
Gary Costa, City of Issaquah
Kirk Holmes, City of Snoqualmie
Philip Harris, City of Bellevue
Ingrid Allen, FHWA
Matthew Rohrbach, PSRC

### WSDOT Staff

Carol Hunter, WSDOT Urban Planning Office
Stephanie Weber, WSDOT Urban Planning Office
Richard Warren, WSDOT Urban Planning Office
Rick Roberts, WSDOT King County Traffic Engineer
Dale Tabat, WSDOT Freight Office
Zak Griffith, WSDOT
Craig Helman, WSDOT

### Consultant Team

Don Sims, HDR
Torsten Lienau, CH2M Hill
Kirsten Hauge, PRR

## Not in Attendance

### CWG Members

Robin Mayhew, PSRC
Andrea Tull, Sound Transit
Jeff Brauns, City of Sammamish
Kirk Holmes, City of Snoqualmie
Ron Garrow, City of North Bend
Barbara Briggs, WSDOT
Elizabeth Stratton, WSDOT

## Meeting Agenda

### I. WELCOME – *Carol Hunter, WSDOT*

Carol Hunter opened the fifth meeting of the Corridor Working Group (CWG) and led introductions. Since the last CWG meeting was held approximately one year ago, today's meeting would provide an update on the project status and include an overview of near-term forecasts for the corridor. The CWG would then have the opportunity to discuss other improvements. The CWG would also hear about the tolling analysis for I-90 and SR 520 bridges.

**Meeting Objectives:**

- Update CWG on project status
- Present 2015 Forecasts
- Discuss low-cost improvement options

### II. I-90 "Big Picture" Overview – *Carol Hunter*

Carol discussed some of the relevant project and policy considerations for the I-90 Corridor Study and provided a brief update on work over past year. She said the project team had been in an interesting position with a number of factors that could influence the corridor analysis, such as the potential tolling of SR 520 and I-90. The team wanted to ensure the recent tolling study didn't have impacts on the I-90 analysis since the original assumptions for the corridor did not include tolling.

The team was also interested in the outcome of Proposition 1, the measure to expand light rail. The measure passed in November 2009 and includes $3 million to study a High Capacity Transit to Issaquah. WSDOT has provided right-of-way plans to Sound Transit and has made a general agreement that any future improvements will not preclude Sound Transit from using the right-of-way for light rail. WSDOT has similar agreements in other corridors, and Sound Transit is currently using right-of-way along I-5. Carol noted that Andrea Tull with Sound Transit could provide the group with an update on Sound Transit 2 activities at the next meeting.

Chris Picard asked when the funding would be in effect for the Sound Transit 2 Plan. The group believed funding would become available as of July 1.

Carol then discussed the corridor study schedule. Currently, the team is analyzing near-term, lower cost options and will wrap up that process within the next month. Then they will begin preparation of the corridor study report.

## III. Tolling & HOT Lanes Analysis Overview– *Craig Helman, WSDOT*

Craig Helman provided an overview of the tolling implementation committee and presented the results of the committee's findings, with a particular focus on any findings and impacts related to I-90 (see PowerPoint presentation). He said the committee was formed by the Legislature last year to consider the impacts of tolls as well as potential route diversions created by tolling. The Legislature asked the committee to determine whether toll revenue could generate $1.5 to $2 billion to replace the funding shortfall for the SR 520 Bridge. The largest part of the committee's work was to engage citizens about tolling. As part of their efforts, they gathered input by conducting nine public open houses over the course of six months.

The committee considered 10 tolling scenarios. Five of the scenarios included tolling on just the SR 520 Bridge. Four options included tolling on both bridges. Scenario 10 included High Occupancy Toll (HOT) lanes on I-90 from Eastgate to I-5. It included two HOT lanes and two general purpose lanes running each direction all day. The committee found that the highest revenue generators were the scenarios that tolled both bridges.

Chris Picard asked how much revenue the HOT lane scenario generated as compared to the other options. Craig said that it was tied with Scenario 6, since HOT lanes typically don't generate as much revenue and serve more as a Traffic Demand Management (TDM) measure.

Craig then reviewed the impacts to the rest of the system based on the different scenarios. At a maximum, the committee's findings showed a seven percent traffic increase on I-90. The net effect of tolling is distributed across the system.

Rick Roberts asked if the traffic volumes are fairly balanced on I-90 and SR 520. Craig said the volumes were not quite balanced. He reviewed a graphic that shows traffic volume changes. After looking at four types of diversion-mode shifts, they saw increases in carpool and transit use, as well as some shifts in the time of day of travel. Peak period travel may drop slightly or people may still drive but choose a different route. The fourth type is that people may change their trip by deciding not to cross the lake at all. This group accounts for about five percent. Most of the time when both bridges are tolled the volumes are more balanced. However, tolling just SR 520 showed little impact on volumes across I-90.

Craig said the committee then narrowed the tolling options to four and ran many toll scenarios. Results showed a significant amount of congestion going across the bridge in a.m., with HOT lanes functioning extremely well. He noted that a two lane HOT system has some design challenges to be resolved, such as geometric constraints, drainage issues and a rebuild of the I-5/I-90 interchange. While the HOT lanes could generate an additional $254 million, it would not fill the project funding gap. Tolling both bridges could finance the SR 520 project. Craig said in general they heard at the public meetings that people are fine with tolling the SR 520 Bridge; however, Bellevue and Mercer Island are not in support of tolling the I-90 Bridge.

Craig concluded by noting that the committee's charge is just to provide information and they will not make a specific recommendation. The next step is to prepare a mitigation plan for the Legislature.

## IV. Present 2015 Forecasts and Analysis & Low-Cost Improvement Options– *Torsten Lienau, CH2M Hill; Don Sims, HDR*

Torsten Lienau reviewed traffic forecasts and analysis for 2015 (see PowerPoint presentation). First, the team reviewed data from last year. During the a.m. peak hour congestion is similar to what drivers experience today. During non-peak hours, traffic congestion is not really a problem. Therefore, the near-term improvements that come out of the corridor study will focus on addressing the westbound a.m. peak and eastbound p.m. peak. Once the I-405 corridor improvements are completed it will also help to relieve congestion on I-90.

Torsten noted that at the last CWG meeting there were questions about the team's assumptions in regard to regional transportation improvements. Now, the near-term forecasts include more defined assumptions. Carol added that the team also made some assumptions about projects on I-405, since the timing to complete the improvements changed due to the current financial situation. Therefore, some adjustments were made to the modeling.

Chris Picard, WSDOT, asked what was meant by the "regional baseline". The Puget Sound Regional Council (PSRC) defined the baseline as improvements that are currently funded. Torsten responded that the team's baseline assumptions included projects that are currently in the transportation plan. The team also accounted for transit improvements and reviewed both planned and proposed investments. Carol said that WSDOT NW Region is also looking at modifications to the I-90/SR 18 interchange.

Torsten discussed the near term approach for the corridor study. The approach includes four basic grouping of options. Carol said what they will see on I-90 is a lower level investment in Active Traffic Management (ATM) between I-405 and Seattle. For instance, adding some black boxes with variable speed limits for all lanes. She noted that as HOV lanes are moved to the outside, the lanes will narrow. The Federal Highway Administration (FHWA) also requires variable speed limits across the bridge. A more complex application of ATM will occur on I-5 around Boeing Access Road. Carol said that implementing ATM strategies is proving to be more expensive than initially assumed.

Chris Picard asked how variable speed limits will be enforced. Carol responded that the State Patrol or photo enforcement will regulate the speed limits.

Torsten then spent some time focusing on how auxiliary lanes will function within the corridor. He heard a suggestion to construct an auxiliary lane between Eastgate and I-405, but after further study they found it didn't relieve congestion, so it was dropped from consideration.

Next, Don Sims reviewed near-term improvements. He highlighted that Option #3 helped to reduce the impact of incidents on corridor and that incidents create a lot of congestion on I-90. To reduce the rate of incidents, ATM has been used for some time in Europe with marked benefits.

Rick Roberts asked if Europe has a similar driver profile. Carol responded affirmatively and added that ATM is well enforced and citizens receive drivers' education that helps to ingrain the system and instill trust. However, there is certainly a learning curve.

Chris Picard asked how the capacity increase was calculated. Don said it was through the use of hard shoulders.

Don presented Option #4 and noted that the City of Bellevue had big concerns about p.m. peak congestion at Eastgate and back-ups on local streets. The team found that using a combination of ramp metering as well as opening up capacity on the mainline would result in big benefits to local streets.

Chris Picard wondered whether the shoulders would have to be reconstructed. Don said they don't know for sure yet. However, if they don't need to be rebuilt, converting to hard shoulders is pretty inexpensive with just a restripe.

Torsten then reviewed the 2015 no action analysis results. Torsten said the results focus on the capacity end of the solution. The team did six screenlines along the corridor to address sections of interest for each jurisdiction.

Next he reviewed the 2015 action alternatives. Alternative 1 in the westbound direction would be the easier option and shows an overall increase in traffic speeds, however it would just move congestion down the I-90 corridor. The team tweaked the option by altering the way drivers merge and diverge onto I-90 and created Alternative 2. Alternative 2 improved operations better Alternative 1, but could not be done with hard shoulders.

In terms of a long-term approach for 2030, there are two types of improvements. The first are to the mainline and the other type are to various interchanges. The team considered just about every interchange, and then focused on the ones that have the biggest issues. Don noted that the improvements address how WSDOT can better manage the HOV system and that an additional objective was to preserve right-of-way for future light rail.

Many of the interchange options were derived from a brainstorming exercise with agency partners to consider 2030 deficiencies and solutions. The options haven't been tested yet from a traffic operations perspective, but the concepts shown could move forward for further study.

Don called out that the direct access option at SR 900 would feed well into a HOT lane and the ramps would be dedicated for HOV/Transit-Only vehicles. The team would work closely with Issaquah and transit agencies to see if the option could work. The Snoqualmie loop ramp also addresses some geometric deficiencies. Carol added that the Tribe is thinking about making some modifications to the interchange area near the new Snoqualmie Casino and is beginning to coordinate with WSDOT.

Chris Picard commented that he liked the options presented; especially ones like ATM. WSDOT encountered some issues with the SR 167 Route Development Plan, primarily because there were not enough low-cost investments given the economic climate. Options that are considered low-cost are somewhat variable and dependent on the type of route, but in general were within the $5-10 million range.

Carol said that given WSDOT's financial situation and the growing demand on all facilities, there is a need to balance all demands and incorporate some lower cost options that show some benefit. Chris added that he was not suggesting WSDOT ignore any long-term need, but just give more flexibility in terms of the timeframe to implement the improvements.

Don stated that the team met with WSDOT as well as the City of Bellevue to discuss low-cost ideas, and is happy to continue to meet with other jurisdictions. The corridor study may potentially recommend ITS infrastructure to help manage congestion, potentially from Issaquah to SR 18. For instance, Variable Message Signs (VMS) could help ramps that back-up and interchanges that don't meet WSDOT standards for elimination. Another concept could include widening one of the westbound off-ramps from I-90 to SR 18 and putting in a right-hand turn lane. The City of Bellevue also talked about ideas to address arterial congestion at Eastgate. As a next step, the team would like to schedule time to meet with Issaquah.

## V. Roundtable Discussion – *All*

Carol asked if CWG members wished to discuss any other relevant issues. Chris Picard wondered whether the team planned to conduct a cost effectiveness assessment. Carol said that the assessment would be completed in-house.

Jim Arrowsmith rose the issue that Snoqualmie was interested in looking further at a park-and-ride at SR 18. He is aware of a property to the north that may be considered.

## VI. Next Steps – *Carol Hunter, WSDOT*

Carol reviewed next steps for the corridor study. First, she asked CWG members to review the improvements and sections that are most important to them and to review them within their respective agencies. She asked that CWG members identify a good time for the project team to visit with their agency staff and discuss the proposed improvements further. The team is also interested in any public outreach opportunities.

Carol said the next CWG meeting will occur once cost-estimating results and refined options are available. The meeting was then adjourned.