

**Expert Review Panel**  
**Meeting Summary**  
**January 4 and 5, 2007 (corrected)**  
**Alexis Hotel, Seattle, WA**

**Panel Members:** Darlene Cimino-DeRose, Alan Kiepper, William Lorenz, Steve Lundin, Mike Meyer (Chairperson), Thomas Schmitt, Siim Sööt; Alonzo Wertz; John Howell (Panel Administrator)

**Speakers:**

*Sound Transit staff* – David Beal, Don Billen, Sheila Dezarn, Joni Earl, Jim Hammond, Ric Ilgenfritz, Ron Lewis, Brian McCartan, Geoff Patrick, Matt Shelden, Doug Wentworth

*WSDOT staff* – Ron Sheck

*RTID staff* – Kjris Lund

*Sound Transit Consultants* – Robert Harbuck, Joe O’Carroll, Roger Koester (Parsons Brinckerhoff Quade and Douglas);

*Panel Consultant* – Mike Morrison (Value Management Consulting, Inc.)

**Thursday, January 4**

Panel Chairperson Mike Meyer called the meeting to order at 8:40 AM, welcomed all participants and reviewed the agenda.

***Revision to Prior Meeting Summary***

Steve Lundin had given to John Howell some clarifications regarding the discussion about Motor Vehicle Excise Taxes (MVET) that was in the meeting summary from the July 20-21 Panel meeting. Steve’s comments will be incorporated in the July meeting summary.

***Introductory Comments***

**Joni Earl (Sound Transit)**

Sound Move celebrated its 10-year anniversary in November. In the third quarter of 2006, Sound Transit served 9.1 million riders on trains and buses, with 43,000 riders per day. Since July the agency has broken ground on three new projects, opened the Eastgate access ramps on I-90, received two of the light rail vehicles, and received final design authority from the Federal Transit Administration (FTA) on University Link. In the next two months, the agency will break ground on two more commuter stations and add two Sounder trips on the south route and one on the north route. The Central Link light rail project is on schedule to open in 2009, with the Airport Link scheduled to open in early 2010. The agency also has undergone a staff reorganization.

The Sound Transit Board met on December 14, 2006, and started to hone in on the ST2 package that will go to the public for comment. They are expected to authorize a draft ST2 package at their January 11, 2007, meeting. Between then and April when the Board will adopt a final package, there will be many opportunities for public review and comment.

In the last legislative session, the legislature had passed a requirement for ST2 to go to the ballot in November 2007, along with the Regional Transportation Investment District (RTID) roads package. The legislature tied the two packages together, with the requirement that for either measure to pass, both must pass. Sound Transit has asked the legislature to revise the ballot mechanism so that voters have just one box to check to approve/disapprove both measures. Meanwhile, coordination with the RTID is going well. A number of key issues for the RTID—particularly decisions on SR-520 and the Alaskan Way Viaduct—are still being developed.

In addition the Regional Transportation Commission's final report is due out in a few weeks. A major recommendation is that there be some level of merger among Puget Sound Regional Council (PSRC) transportation work, Sound Transit and regional road planning. There may be an option for a directly elected board, instead of the confederated boards that Sound Transit and PSRC have now. Sound Transit believes any changes should be deferred until after the November 2007 election.

### **Questions from the Panel**

Q. What is the status of the rail connection in Tacoma?

A. There has been discussion with the entities involved. At this point the Lakewood Station is moving forward.

Q. Has there been any movement to split the RTID and Sound Transit measures apart?

A. Some legislators have been interested in combining the two measures into a single measure, but Sound Transit has not been involved in this discussion. The agency's concern has been to achieve good coordination with RTID.

### ***Major Events Since the Last Panel Meeting***

#### **Ric Ilgenfritz (Sound Transit)**

**Sound Transit Board and Staff:** Since the last Panel meeting, the Sound Transit Board has taken the interim step of removing from further consideration the three-tenths (0.3%) sales tax scenario, identified the Maximum Rail option as the preferred package, and held one workshop on policy issues. The staff work on ST2 in the second half of 2006 included: further refinement of project scope and cost estimates; project-level risk assessment; adjusting costs to 2006 dollars; adjusting inflation forecasts; East corridor project-level work; coordinating with RTID, PSRC and Washington State Department of Transportation (WSDOT); and extensive public outreach.

**State and Federal Elected Officials:** There have also been a number of significant external events in this time period. There was an election in which two transportation measures were approved by voters: one for roads and bridges in Seattle, and one proposed by King County Metro for a one-tenth percent (0.1%) sales tax for transit. These votes indicated that transportation issues are still a priority for voters, despite some controversies. The legislature has a new chair for the House Transportation Committee—Judy Clibborn, whose district includes Mercer Island, Bellevue and other Eastside communities. The former chair, Ed Murray, is now in the Senate and is Vice Chair of the Senate Transportation Committee. On the national level, Washington's Senator Patty Murray now chairs the Senate Transportation Committee; and Norm Dicks (Washington's 6<sup>th</sup> Congressional District, on the coast) is Vice Chair of the House

Transportation Committee. These changes mean that transportation issues have friends among elected officials, though both the state and the federal governments have budget challenges.

**RTID Coordination:** Sound Transit and RTID have developed a joint executive committee, meeting monthly, which has reviewed financial assumptions and discussed the ballot format. There is also an interagency steering committee, which meets twice a month.

**MVET:** The Washington Supreme Court ruling on I-776 upheld Sound Transit's ability to collect MVET until its Sound Move bonds are paid off in 2028. All the ST2 financial projections assume that the MVET is in place.

**Next Steps:** The Sound Transit Board will meet the week after this Panel meeting to decide on the draft package to send out for public comment. There will then be public comment from February through April 2007, and intensive planning work. RTID will be putting its plan before all three County Councils. The deadline to put the ST2 and RTID packages on the November ballot is August 11, 2007.

### **Questions from the Panel**

Q. How is the Sound Transit Board getting the information they need to make an informed decision on the package?

A. There will be six Board meetings between January and April to review and discuss the plans. The Finance Committee, which will vet the financial plan, meets twice a month. The Executive Committee meets weekly.

Q. Who staffs the RTID?

A. The RTID's policy staff are consultants, headed by Kjris Lund as the RTID executive director. For technical staffing, RTID relies on a team within WSDOT headed by David Hopkins.

Q. What impact is the Alaskan Way Viaduct issue likely to have? When is the vote on the viaduct? Is there a financial impact on ST2?

A. The viaduct is a controversial issue that has become somewhat polarized. Because of the controversy, it has attracted much of the media and public attention around transportation. There is currently discussion between the City of Seattle and the state about having an advisory vote on the viaduct within the city in March. On the finances, there is a firewall between RTID and ST2.

### **Sound Move: Central Link Update**

#### **Ron Lewis (Sound Transit)**

The initial segment of Central Link will open in the summer of 2009. (See Tab 4 in the meeting notebook and handout, "Central Link Project Update.") Construction of the initial segment is approximately 60 percent complete. Work in the downtown transit tunnel is somewhat behind schedule but approximately 85 percent complete. The tunnel will reopen to bus traffic in the fall of 2007. Sound Transit has acquired 35 light rail vehicles for initial use. The maintenance facility can handle up to 100 vehicles.

While the downtown and Beacon Hill light rail routes involve tunnels, Rainier Valley is at-grade, and Tukwila is primarily aerial. The Rainier Valley work has required relocating all utilities in the Martin Luther King Way corridor away from the track bed. Sound Transit partnered with the City of Seattle to underground the electric utilities. Planning these moves and keeping the utilities operating requires working closely with the local community. There have been some delays in this work.

Central Link has five major construction contracts and three systems contracts. The systems contracts are linear for the full system. Sound Transit is now amending them to include Airport Link.

### **Questions from the Panel**

#### **Maintenance Facility**

Q. Does the excess capacity in the maintenance facility anticipate needs for ST2?

A. The facility was designed for Central Link, University Link and Northgate. Any light rail for the East side would require an additional maintenance facility in that area.

#### **Alignment Work**

Q. What percent of the construction cost does the tunnel represent?

A. It is part of the \$300 million cost, which includes the tunnel, aerial guideway and Beacon Hill station.

Q. Were there any surprises in the work underground that slowed progress?

A. Most underground work involves some unknowns. For the Beacon Hill tunnel, the investigation used a test shaft. Sound Transit learned a good deal about the geology of the area and ways to mitigate risks. Dewatering will be a big task with any underground work. For the Beacon Hill tunnel, slurry wall technology was used for the shaft and jet grouting was used to help stabilize some soils.

Q. Are there ongoing water problems underground?

A. The seal is working.

Q. What is the status of Sound Transit's \$50 million commitment to the Rainier Valley community?

A. The funds went to an independent, nonprofit, community development fund in Rainier Valley that is managing the distribution of the funds. The funds are being used for two purposes: 1) to help existing businesses that are affected by the construction, and 2) for the development of new businesses and housing in the area.

Q. How will ST span I-5 with the light rail line?

A. There is a pier table, with a balanced cantilever approach, and building out from each pier. Some freeway lanes are closed at night for this work.

#### **Vehicles**

Q. What other cities are using the same cars ST will use? Have you talked with them about any challenges they have had with the cars?

A. The cars are used in San Jose, California, in New Jersey, and possibly in Baltimore, Maryland. Sound Transit staff talked with staff in these locations before purchasing the cars. The technology of the cars is in wide use. Any unique aspects of the cars will be on the aesthetic side.

Q. What will be the size of the light rail trains?

A. Initially there will be two-car trains, but ST can operate up to a four-car train. Each car can also operate independently.

### **Stations**

Q. For the airport station, is there an option for design/build/operate/maintain?

A. No. The station design is done. The station contracts are for construction of the station, pedestrian bridges and at-grade approaches. Sound Transit has an interlocal agreement with the Port of Seattle on operation of the station.

Q. Did you look at opportunities to privatize?

A. Early on we looked at property around the stations and transit-oriented development opportunities. There are some discussions ongoing and some interest around the Capital Hill station. The City of Seattle has done some rezoning around stations. Sound Transit has mostly focused on the core transit services.

Q. How long is the walk from the airport station to the airline ticket counters?

A. It's 1,000 feet, using a pedestrian bridge on the 4<sup>th</sup> floor of the parking garage. The Port will create a pedestrian corridor in the garage that will be level into the terminal.

### **Costs and Schedule**

Q. From a financial perspective, did this work require tapping any of the contingency funds?

A. Yes, there was a need for a more extensive jet grouting program with the tunnel work to stabilize the earth during drilling. Also, investigation in the Beacon Hill tunnel revealed a need to shift the location of the platform to move away from silty soil to more of a clay composition.

Q. In what way or by how much is the project behind schedule?

A. Sound Transit has a baseline schedule that the construction management team monitors daily. The initial segment is on track in terms of costs but behind on schedule. However, since the overall schedule has approximately three months of float, the project as a whole is still on schedule.

### **Contracts**

Q. Is it common to amend contracts to extend the distance, as you're doing for the airport segment?

A. In the initial civil contracts for Airport Link, Sound Transit specified that the agency would have the option to add to the existing contracts. The portion of Airport Link that is under the Port of Seattle is bid out separately, however.

Q. Are there similar extension options for the Beacon Hill to Capital Hill segment?

A. No, this is a separate project and grant.

## **Sound Move: North/University Link Update**

### **Ron Lewis (Sound Transit)**

See the meeting handout. This segment includes the Capitol Hill Station and the University of Washington Station by Husky Stadium. There is projected to be a high ridership on this corridor. The Capitol Hill station is approximately 80 feet deep, with two or three street-level entrances. The University station is approximately 100 feet deep, with two or three entrances and a crossover structure. Preliminary engineering is complete. Property acquisitions should be complete by the summer of 2008. Construction will begin in late 2008 and will continue over five to six years.

Sound Transit is seeking a full federal funding grant for University Link. The project received the highest New Starts rating. The FTA gave final design authority on December 11, 2006.

### **Questions from the Panel**

Q. Since the First Hill station has been eliminated, what is Sound Transit doing to improve access for riders from/to that area?

A. The staff developed design options for streetcar and bus improvements in the Madison Street corridor, and connections from the International District Station. The Board has included the First Hill streetcar connection to the International District Station, First Hill and Capital Hill Station as one of the candidate projects for ST2.

Q. What is the status of WSDOT's work on the Pacific Street Interchange near Husky Stadium?

A. SR-520 is just south of Husky Stadium and the Sound Transit University Station. One option WSDOT is considering to increase capacity on 520 would involve the adjacent Pacific Street Interchange. Sound Transit is working with WSDOT staff on the pedestrian access, and is co-lead for the environmental work. If there is a new interchange, it would need to be built after the Sound Transit station goes in.

Q. Will the station have connections both on the northwest to the campus and on the southwest to the medical center?

A. There will be several entrances, which will use the current at-grade crossing on Montlake Boulevard and a new underground crossing to the station's north entrance. However, this planning is still in progress.

Q. What is the flexibility to get part or all the way to Northgate?

A. Sound Transit will launch the tunnel boring from the Roosevelt Station south so as to have the time needed to build the station under the agreement with the University of Washington. The contracts allow negotiating for work to the north if funds are available. However, it is unlikely that there will be enough cost savings to build a significant portion of the segment from the stadium to Northgate.

## **Summary of Major ST2 Activities Since the Last Panel Meeting**

### **Sheila Dezarn (Sound Transit)**

For the technical work, the staff has continued to refine project scopes, work with local jurisdictions on scope scenarios, and update the cost estimates. Full scoping was also done for

East Link. The financial work has included revising the inflation forecasts, and rolling technical updates into the financial packages. In terms of policy work, the staff has worked with the Board to clarify the assumptions in the three scenarios. The Board also has discussed how to handle allocation of system costs.

The Board has indicated a strong interest in expanding the Central Link system to the south and east as far as possible in order to link major centers of population and employment. At the November workshop, the Board decided not to pursue the three-tenths (0.3%) sales tax option since it would not maximize Central Link. The Board favored the five-tenths percent (0.5%) sales tax option.

The staff followed up with local jurisdictions to get their comments on the options. Sound Transit has now received comment letters from all but a few of the jurisdictions (Tab 7 in the meeting notebook).

### **Questions from the Panel**

Q. Has Pierce County provided a letter of comment?

A. Pierce County has not formally responded, but most of the projects are within cities, so the County's formal response is not as important as responses from the cities.

Q. The letters from Burien and Kent do not seem especially supportive of ST2, or, at least, they want additions to the package.

A. The Board has now added the Burien project to the list of potential ST2 projects. The Board Chair has encouraged the Board to narrow down the list, however.

Q. How much clarity is there on subarea allocation with respect to finances? Have there been presentations to the Board on this topic?

A. The staff has developed different scenarios for funding the draft package. There are some circumstances where subareas might pool resources to maximize an extension of service. The Board reviewed subarea allocation at the November workshop.

### ***ST2 Public Outreach Since the Last Panel Meeting***

#### **Jim Hammond and Geoff Patrick (Sound Transit)**

Public outreach on the draft scenarios included: five open houses, attended by between 80 and 120 people each; a household mailing; a variety of types of information on the ST2 Web site; information booths at fairs, festivals and sports games; and an active speakers' bureau. The public interest and number of comments have been greater than expected. (See meeting handout, "Public input on Sound Transit 2.")

#### **Comments**

Sound Transit has received more than 5,000 comments, including comments in person, by e-mail, from comment forms and online questionnaires, and other written comments. The staff provided an extensive report and summary of the comments to the Board.

Themes in the comments include: a desire for better transit to help ease the area's transportation problems; requests to consider the transit solutions in other cities; a desire for an expanded light

rail system, with some favoring buses. While people who commented stated their desire to get transit operating as soon as possible, there was a strong response favoring the option of building more even if it takes longer.

Less than 10 percent of those who commented opposed light rail. These commenters stated that buses would serve the region better and more flexibly. Some raised questions about Sound Transit's ability to deliver on long-term projects.

The areas of top importance to those who commented were the Eastside connection across I-90, expansion north of the University of Washington, and expanded ST Express and Sounder system. Of the people commenting, 42 percent lived in North King County and 22 percent in East King County. Of the scenarios, 64 percent would choose the maximum rail extension, 23 percent the medium extension, and 4 percent the smallest extension. Three percent wanted all, and six percent none. In terms of the focus for transit investments, by far the top three in importance to respondents were: connections to the places people go, reliability, and travel time. The comments focused more on the system and what it can deliver, than on the taxes.

### **Telephone Poll**

Sound Transit also hired a research firm to conduct a telephone survey of a sample of 800 registered voters in October. The results, with a margin of error of approximately 3.5 percentage points, were that 41 percent of respondents said things were generally on the right track with Sound Transit, and 65 percent had a favorable view of the agency. When asked an open-ended question about what regional issues people are worried about, the largest percentages mentioned roads, transportation and traffic.

The survey found that 71 percent of respondents were favorable toward an integrated approach to roads and transit. On the ST2 scenarios, 67 percent of respondents said they would support a bus/rail (low) option, 71 percent would support a medium rail option, and 77 percent would support a maximum rail option. Viewing the responses on a subarea basis, there was strong support for the maximum rail option from all subareas.

Regarding building south, 46 percent favored building south as far as feasible, 30 percent favored building between Tacoma and Federal Way first, and 24 percent were undecided. When asked about building all the way to Tacoma if dollars become available, 70 percent would favor that choice. In terms of building east, 62 percent favored light rail, 29 percent favored express bus in high-occupancy (HOV) lanes, and 8 percent were undecided.

These poll results were presented to the Sound Transit Board in November and are also available on the Web site.

### **Questions from the Panel**

#### **Outreach Comments**

Q. Was it clear that the difference in projected ridership between the medium and maximum system is only 2 percent?

A. Sound Transit provided this information in its outreach materials and some people commented on it. Others said that even if the improvement seems marginal, they wanted the system built as far as possible.

Q. Was the “farther or sooner” question asked in relation to going as far as Northgate?

A. The question was asked generally. The written comments showed that some people did wrestle with specific issues.

Q. How do the responses compare with the area’s population, and to responses received from other outreach efforts?

A. There were 5,000 responses over three months, compared to the area’s 2.6 million population. According to staff at other area agencies doing outreach on public works issues, similar outreach efforts have not elicited this much response.

### **Telephone Poll**

Q. Did you ask people in the poll about their support for ways to pay for the transportation/transit packages, such as this would cost you \$X in increased taxes? Adding this question usually gets a different and lower level of support than does describing the increased service level.

A. The survey did have a question that gave a cost for each of the three options in terms of the annual cost per household. There was not a meaningful difference in support for the three options. Also, at the end of the survey there was a recap question, and the number who strongly support and strongly oppose both increased.

Q. Is it possible people thought questions about “rail” meant heavy rail instead of light rail?

A. The first time a question was asked about rail it was described as “light rail.” There is limited time to do education in a phone survey.

Q. How was the question asked about the costs of the options (slide 17)? Specifically, how was the revenue source described?

A. There was a series of three questions asking for the person’s level of support for each of the expansion options. The revenues were described three ways: as a percentage of sales tax increase, as cents per retail purchase of \$10, and as an annual cost to the average household.

Q. Were there any questions indicating that the dollars a person pays in taxes might go to transit expansion in other areas?

A. No.

Q. Was there a reason you didn’t ask how willing the respondents were to pay for improvements?

A. The focus was to get opinions and preferences on the three draft options the Board sent out for public comment. Sound Transit, as a public agency, cannot ask how people might vote. If there is an independent campaign committee for the ballot measure, that group might ask direct questions about voters’ support. This survey indicated that Sound Transit and RTID are well positioned to start the conversation with voters about addressing transportation issues. What the survey does not say is what people are willing to pay for it.

Q. Did the Board take any action based on the public comments?

A. The Board was very interested, and used the information as significant data to make the decision to eliminate the three-tenths of a percent (0.3%) tax option, and to emphasize the five-tenths (0.5%) option.

Q. Is RTID doing similar outreach and surveys?

A. Yes, RTID conducted a similar survey in the summer. Sound Transit and RTID coordinated the surveys to make the parts on the potential transportation package the same in both surveys.

Q. Has anyone else done surveys on tax levels for transportation?

A. A survey was done by a nonprofit group about the fuel tax.

Q. What was the percentage of vote in favor of Sound Move?

A. Fifty-six (56) percent.

### **Request and Comment from the Panel**

A Panel member requested the wording of the series of questions in the telephone poll about the revenue sources for the expansion options, summarized in slide 17 of the presentation.

Panel members commented that care is needed both in asking questions in a survey and in interpreting the results. It appears that the wording of the question on comparing high-capacity transit and bus rapid transit might have pointed to the high-capacity option.

### ***Sound Transit's Response to the Panel's October 2006 Letter***

#### **David Beal (Sound Transit)**

See the letter in Tab 6 of the meeting notebook. A number of the points in the letter were discussed later in this Panel meeting. Regarding the Panel's suggestion to include in ST2 a list of provisional projects that could be added if funds are available, the Board is expected to include such a list in its final plan. Additionally, some of the projects in the ST2 package, such as right-of-way preservation, will position the system for the future, looking toward ST3.

#### **Questions from the Panel**

Q. Which areas are in the planning for future extensions?

A. The Board is committed to building out within the three main corridors—east to Redmond, south to Tacoma, and north to Everett.

Q. Is right-of-way preservation through purchases? Who does the environmental work for these?

A. Some are purchased, some acquired through liens. In every corridor with right-of-way acquisition, Sound Transit does the environmental work.

Q. How is Sound Transit following up on the Panel's suggestion on developing term sheets with the jurisdictions?

A. The staff has made a concerted effort to get responses from the jurisdictions on projects' scope. Currently Sound Transit is expecting to secure term sheets at the 30 percent design stage. The staff does not believe it likely to get agreement on term sheets before the vote on the ST2 package this fall.

Q. How are you responding to the jurisdiction that wanted double or triple the amount of parking? And how are you documenting any understanding you have with them?

A. The staff went back to look at the projected demand at the station. Any change that revises the cost estimate is documented in the project template.

## **Scenario Evaluation and Decision-Making**

### **Sheila Dezarn (Sound Transit)**

In July 2006, the Board set aside the do-nothing option and the low option, and went forward in seeking public comment on three tax options: the three-tenths percent (0.3%) tax (medium) Bus/Rail option, the four-tenths (0.4%) tax (medium/high) Medium Rail option, and the five-tenths (0.5%) tax (high) Maximum Rail option. The medium option would include substantial investment in enhanced express bus service and light rail from Seattle to Bellevue. The medium/high option would place priority on expanding the light rail system and would include extension of light rail to Montlake Terrace in the north, to Bellevue/Overlake Hospital in the east, and to Federal Way in the south. The high option would extend light rail service to Lynnwood in the north, Redmond's Overlake Transit Center in the east, and the Port of Tacoma in the south. (See the materials in Tab 7 of the meeting notebook.) Each option included an express bus service enhancement fund, although it would be larger (1 percent per year) for the 0.3% Bus/Rail option than it would be for the other two options (0.5 percent per year).

Between July and December 2006, Sound Transit staff refined the project scopes with the local jurisdictions, refined the cost estimates, revised the inflation rate, updated the unit costs and the right-of-way costs, updated costs to 2006 dollars, and conducted public outreach. By November of 2006 the Sound Transit staff had focused its staff time and attention on the Medium and Maximum Rail Extension options (0.4% and 0.5% sales tax increase options).

### **Planning and Policy Assumptions**

There are several important planning assumptions for the options:

- **Service enhancement fund** – As the light rail system expands, the ST bus service will be restructured. For each change, Sound Transit will consider the impact on riders in travel time, reliability and fares, along with the impact on the system.
- **Maintenance facilities** – The medium/high option includes one new maintenance facility; while the high option includes two. The North King subarea will fund 80 percent of the cost of the Forest Street maintenance facility, although this facility will support projects in other subareas. Staff is recommending that the North King subarea be given credit in ST2 for system investments made in ST1.
- **Agency costs** – The cost estimates increase administrative costs by 10 percent for the high option.
- **Inter-subarea borrowing** – This was not assumed in Sound Move, but has become a common practice.

### **Cost Estimating Update**

Cost estimate updates were summarized at the November Board meeting. The staff tested the “affordability” of each of the options, based on the cost estimate updates. This analysis resulted in a conclusions that without substantial changes to the proposed investment package the three-

tenths (0.3%) option was no longer affordable because it did not meet the minimum debt service coverage ratios established by the Board for the agency as a whole or for the North King and South King sub areas. In the four-tenths (0.4%) option, the agency-wide debt service coverage ratio was met, but the debt service coverage ratio for the East King and North King sub areas fell below the minimum. As a result some projects would need to be constructed later (i.e. after 2020). For the five-tenths (0.5%) option, the agency-wide debt service coverage ratio was achieved, but not for the South King, North King and East King sub areas. This would require some projects to be constructed later, and there would be additional pooling of revenues between the Pierce County and South King sub areas.

### **Sequencing**

The sequencing for project construction was presented to the Board in November. The criteria for sequencing include: (1) projects that are ready to go; (2) ridership; (3) logical extensions of Sound Move; and (4) the fiscal capacity of the subarea. The staff ran several tests of sequencing for each of the options.

### **Preferred Option**

The Board agreed on a goal of maximizing light rail and chose the five-tenths (0.5%) option as their preferred package. They expressed a desire to move forward with planning to extend light rail to the Tacoma Dome and to Redmond in the future, and generally agreed that it is important to get the segment built to Northgate as soon as possible. It had been hoped that there would be sufficient excess revenues in the Sound Move package to extend light rail to Northgate. Since that will not happen as part of Sound Move, a number of Board members believe it is a priority for the next phase. The Board also agreed that there needed to be more discussion of sub area equity.

The staff presented a draft package to the Board on December 14, 2006, using the five-tenths (0.5%) sales tax increase. The staff estimates this tax represents a cost per household of \$125 per year. The Board prioritized further light rail extensions (if sufficient revenues are available) from the Overlake Transit Center to downtown Redmond and from the Tacoma Dome to downtown Tacoma, and approved a list of other key transit investments, including the First Hill streetcar. The Board added to the list the Burien transit center that the City of Burien requested.

One of the next steps is for PSRC to certify that the work is consistent with PSRC's transportation planning.

### **Questions from the Panel**

Q. Which option includes the trolley to First Hill?

A. The trolley is in all of the options.

Q. What does "pooling resources" mean in this context?

A. An example would be if a sub area couldn't afford to extend a segment but its constituents would benefit by being able to get on the system to go to other areas. For example, Pierce County sub area revenues may be used in the South King County sub area to extend the light rail line into Pierce County.

Q. Is this a matter of redefinition, or would there be repayment?

A. There might be some of both. The Board will have to work the arrangements out on an individual basis.

Q. Is the five-tenths (0.5%) sales tax the maximum?

A. Yes.

Q. Are there any points of concern from PSRC?

A. No. Sound Transit staff has been meeting with PSRC monthly. PSRC staff concurs with Sound Transit's work. The next step to be taken is to document this process.

### **Capital Cost Updates**

#### **Cost Estimate Update – Robert Harbuck (Parsons Brinckerhoff)**

ST2's cost estimates were prepared in 2005 dollars. The data used included historical costs for discrete items and costs by general groupings. To update the project costs to fourth quarter 2006 dollars, the consultants looked at a number of cost indices. (See the report in Tab 8 of the meeting notebook.) For construction costs there is no index that tracks exactly the types of costs Sound Transit will have, but there were five that track similar commodities. These indices ranged from an escalation rate of 3.2 percent to 15.3 percent.

One of the construction cost indices reviewed is WSDOT's cost index, with a 2005 to 2006 escalation rate of 12.3 percent. This rate is on the high side partly because of the increasing cost of asphalt, which is a major part of road construction but is less significant for transit project construction. After looking in detail at the items in the WSDOT index, the consultants decided that a reasonable escalation range for Sound Transit would be 6 to 10 percent. Sound Transit has chosen to use 10 percent.

#### **Risk Assessment – Joe O'Carroll (Parsons Brinckerhoff)**

There were two objectives of the recent risk assessment work: (1) determine a risk-based assessment of potential costs; and (2) determine confidence levels for existing planning estimates. (See materials in Tab 8 of the meeting notebook.) The strategy for the risk assessment was to leave the base costs as they are, but to replace the contingency with a risk-based contingency. The risk contingency focuses on hazards identified in the corridor and for the project as a whole.

Based on the quantitative risk analysis, it is possible to determine a confidence level for the cost estimates. The team concluded that there is a level of confidence for cost estimates in the South corridor of 81 percent, for the North corridor at 72 percent, for the East corridor at 96 percent, for the maintenance bases at 88 percent, and for all ST2 projects combined, and 86 percent level of confidence in the planning estimates.

#### **Scope and Cost Adjustments – David Beal (Sound Transit)**

The table entitled "ST2 Level 3 Core Projects" (included in the meeting handout) provides a summary of the changes in costs between the estimates in 2005 and in 2006 dollars for ten core projects. The overall effect is to *lower* costs by 11 percent. This is a result of changes in project scopes for a number of the projects. The change in the total project cost is less than a half a

percent. Because of this slight lowering of the overall estimate, it was possible to add the Burien transit center that had been on the list of projects to be funded if money were available.

### **Maintenance Base Costs – Bob Harbuck (Parsons Brinckerhoff) and Matt Sheldon (Sound Transit)**

The work to estimate maintenance base costs is consistent with planning for other ST2 projects. The total fleet requirements are based on projected 2030 demand with a downtown tunnel headway of three minutes, and the car manufacturer's recommended load maximum of two per the number of seats in a car. The total fleet requirement is 225 to 250 cars. Seventy-five of these will be in service on the Sound Move segments. So the maximum for ST2 is an additional 175 cars.

The maintenance base for Sound Move has capacity for 105 cars parked. So for ST2, Sound Transit will need to add maintenance capacity for 150 to 175 cars. Planning on the system level, Sound Transit will need three bases: Forest Street (105 cars), an Eastside base (30 to 40 cars) and a south base (105 cars).

### **Questions from the Panel**

#### **Cost Estimates**

Q. Were the indices you reviewed regional or national?

A. All provided regional costs.

Q. Is the overall trend in the construction cost indices now going down or up or stable?

A. The indices are beginning to show declines in construction costs, but there are spikes from time to time. Engineering News Record published an article at year end saying that costs in 2007 will not be as extreme as in 2006. But for this work we were using the indices to update the costs to 2006 dollars, not for financial forecasting.

#### **Risk Assessment**

Q. If the cost contingency for each corridor were lower than the risk contingency, why not say that the current contingencies are too low? Why not use 100 percent?

A. This would be true at the final design stage. But the project is still at the planning level. Now that we know what the risks are, the agency will develop the risk management program accordingly. The confidence level of 86 percent here means that the estimates account for 86 percent of the contingency, compared to 100 percent of the identified risk. Unless you believe that every risk will take place and will do so at maximum value, you don't need to go up to 100 percent. The real value of this exercise is to have everyone understand what the risks are in order to develop ways to mitigate the risks.

Q. In traditional planning the contingency is higher at the planning stage.

A. The allocated contingencies for all corridors are good. The challenge is for the unallocated contingencies.

A. *from Paul Matsuoka:* Part of the reason for conducting a risk assessment at this stage is to provide information for the vote. The Board needs to know how to present the project costs and risks to the public. If the number came out low, the Board might recommend fewer projects.

With a confidence number of 80 percent or more, the Board would feel comfortable recommending the full set of projects.

### **Maintenance Bases**

Q. Will three-minute headways work in the downtown tunnel?

A. The tunnel is built for a maximum of two-minute headways.

Q. Is the Board aware of the 225-250 fleet size?

A. Yes.

Q. How many maintenance bases will be needed for the ultimate system?

A. To add the segment to Lynnwood would call for one more base; and extending to the Tacoma Dome would probably require one more.

Q. Your maximum of 105 cars per maintenance base seems low. Keep in mind that the overhead costs that include personnel to staff each base is high.

A. The staff will look hard at how to expand the existing bases in the future. There will need to be an Eastside base in order to have trains available in the morning and not have to deadhead. The plan is to concentrate the heaviest maintenance at the Forest Street base.

### **Panel Comment**

The risk assessment work is state-of-the-art. However, use of the term “level of confidence” is not standard for the circumstances. Rather than being an 86 percent level of confidence, the number represents 86 percent of assessed risks.

### ***Independent Report on ST2 Cost Estimate Analysis***

#### **Mike Morrison (Value Management Consulting, Inc.)**

Mr. Morrison, the independent consultant the Panel retained to review sample ST2 cost estimates presented his draft final report (Tab 9 in the meeting notebook). He reviewed the estimates for three light rail projects: downtown Seattle to Bellevue, Bellevue to Overlake Transit Center, and Overlake Transit Center to Redmond. His conclusions are as follows:

- The standards set in the cost estimate methodology have been consistently applied.
- The unit costs are reasonable and used consistently.
- Development of composite unit costs is a good practice and shows sound planning.
- The method of developing quantities for prototype alignments is reasonable.
- The allocated contingencies are reasonable and appropriate for this stage of the project.
- Sound Transit has rolled up costs consistently to “low” and “high” values.
- One concern is that the column labeled “high” may look like the maximum value for the project, when it is actually the low estimate with a standard percentage added to get a “high.” The “high” values need to be carefully explained.
- The use of allowances needs a clear narrative explanation. The term “provisional unit costs” is not commonly used, so needs a definition.
- Further dialogue with Sound Transit is needed to understand how the unallocated contingency is calculated.
- Use of the term “low” in evaluation measures for risk avoidance was explained to the Board but needs more narrative.

- The development of cost estimates with spreadsheets adds twice the opportunity for human error—once in entering the cost numbers and a second time in entering formulas. There is proprietary software built around a database that will do this job more reliably.

### **Questions from the Panel**

Q. Are you comfortable with the cost estimating methods and their application?

A. Yes.

Q. Is this the end of your study?

A. Mr. Morrison has a meeting set with Sound Transit to clarify one item, then will finalize his report. That will complete the work the Panel asked him to do.

### **Summary of Issues/Requests**

John Howell summarized the Panel's requests, many of which can be taken care of in the next day's meeting. These were:

- Written narrative update on First Hill
- The wording for the public opinion survey questions about the tax sources
- How the \$125 per household per year tax impact figure was determined
- Use of the Building Cost Index in financial forecasts and whether other indices have been considered
- The new Sound Transit organization chart reflecting the recent reorganization

The meeting adjourned at 4:05 PM.

## **Friday, January 5**

Panel Chairperson Mike Meyer called the meeting to order at 8:35 AM.

### ***Briefing on I-90 East Corridor High-Capacity Transit***

#### **Scoping and Alignments – Don Billen (Sound Transit)**

The overall schedule for work in this corridor is: scoping was complete in September 2006; conceptual engineering will be done in 2007; the draft Environmental Impact Statement (EIS) will be published in 2008, and the final EIS in 2009. (See Tab 11 in the meeting notebook.) For environmental review, the state and federal review processes are taking place at the same time, with the FTA and Sound Transit as co-leads for the federal review process, and WSDOT and Sound Transit as co-leads for the state process. Approvals are needed to convert the I-90 center roadway for light-rail use, including a WSDOT air space lease and a Federal Highway Administration interchange justification report.

There are several alternatives for each segment of the corridor (see Tab 11 in the meeting notebook). The segments are: Seattle to south Bellevue along I-90; south Bellevue to downtown Bellevue; the alignment through downtown Bellevue; Bellevue to Overlake Transit Center; and Overlake Transit Center to Redmond.

There have been four public scoping meetings, which have gathered many comments. WSDOT would like Sound Transit to maximize ridership and total person throughput, and would like the

system to reach at least to Overlake Transit Center. The City of Mercer Island is very interested in access to the new outer roadway HOV lanes and in station design. Residents of west Bellevue neighborhoods are concerned about local impacts. The City of Bellevue prefers a tunnel through downtown because the downtown layout is in long blocks, and light rail at-grade would challenge the street capacity, especially for east-west streets leading to I-405. Both the cities of Bellevue and Redmond are concerned about land use impacts. Redmond would like certainty that light rail will reach downtown Redmond in ST2.

Development along one of the options for alignment in the Bel-Red corridor may move more quickly than expected, since a real estate development company has bought a large parcel in Bellevue and is planning a redevelopment there similar to Portland's Pearl District. The cities of Bellevue and Redmond are discussing the alternative alignments; Redmond is supportive of Bellevue's development plans. Most of the route from Overlake to Redmond would be in the right-of-way for SR 520. WSDOT had said that it looks feasible to use this right-of-way. The question is how to align the route from 520 to downtown Redmond.

### **I-90 Bridge – Roger Koester (Parsons Brinckerhoff)**

The electrical system for light rail on the I-90 bridge must be isolated, not on the bridge deck. In the next phase, the staff will look at what is needed to resist corrosion.

Additional analysis has just been completed on the I-90 bridge to look at the expansion joint. WSDOT's design criteria for the bridge requires meeting a 2.2 degree rotation between transition span and the main span, and 1.1 degree rotation for horizontal movement. The design criteria were set up to include a safety factor. The horizontal rotation can be handled at the expansion joint, using sliding beams with springs on each side for control. For vertical rotation, an articulated beam appears to be the best solution, though it would be a source of maintenance. The articulated beam would provide four grade breaks of 6 degrees each. The intermediate points will require springs to handle the rail curvature. The next steps in this analysis are to: review the basis of joint movements, their frequency and how to predict them; figure out an operations plan for extreme movement; and develop details of the joint mechanism.

### **Questions from the Panel**

#### **Alignments**

Q. Will the EIS look at alternatives such as making HOV lanes into high-occupancy toll (HOT) lanes?

A. The FTA has adopted the Sound Transit Board's preferred alternative as the starting point for the EIS. The EIS will look at light rail alternatives, so would not look at the option of HOT lanes in the same center roadway as light rail.

Q. Has anyone suggested that the City of Bellevue might pay for the extra cost of a tunnel, or that there could be a local improvement district?

A. These options have not been discussed yet. More engineering needs to be done first.

Q. Will the question of getting to Redmond be resolved by the 2007 ballot measure?

A. Yes, the plan has a solid line to Overlake and a dotted line to downtown Redmond. The dotted line represents work that might be done later in ST2 depending on the project scope and funds available.

Q. Might there be public-private opportunities to fund going to Redmond? A benefit area could be established in the corridor, then the agency could work out scenarios for local businesses and residents to support the system through development.

A. Yes, this would be similar to the local improvement district for the Lake Union streetcar in Seattle.

Q. Have you done new work on ridership and demand modeling?

A. The methodology has not changed. Sound Transit will update the model based on revisions from PSRC.

Q. Has the FTA accepted your mode choice as a condition limiting the number of alternatives?

A. Yes.

Q. Is it within the purview of the study to recommend HOT lanes?

A. We anticipate this will be examined in the EIS. But any decisions on traffic operations lie with WSDOT.

Q. Does Sound Transit have a written agreement with WSDOT on your roles and scope in this project?

A. We have started to draft a co-lead agreement.

### **Bridge**

Q. What additional work will the EIS do on traffic movement on the I-90 bridge and the bridge's operational performance in traffic?

A. Sound Transit and WSDOT are working together on this question. The traffic study will be as detailed as last year's test, will update that analysis and review some additional mitigation.

Q. Has a floating bridge ever been retrofitted with a new electrical system before?

A. It is not very different from retrofitting other types of bridges.

Q. Will you be developing a physical prototype for the expansion joint?

A. We have no plans to do so at this point, but this step could be considered in preliminary engineering. One challenge is that the movements don't happen dramatically.

### **Panel Comment**

Continuing to do engineering and analysis on the I-90 bridge is a good idea. The bridge is a critical part of this corridor, so before significant amounts of money are spent, Sound Transit and WSDOT need to be absolutely confident with the plans.

### **Panel Request**

The Panel requested a copy of the co-lead agreement between Sound Transit and WSDOT for the work in the I-90 corridor when it is available, even in draft form.

## **Coordination between ST2 and RTID**

### **Ric Ingenfritz (Sound Transit) and Kjris Lund (RTID)**

The legislature has required that Sound Transit and the RTID both place their packages on the ballot in November 2007 and that both must pass for either to take effect. The agencies have organized three groups to coordinate the work: a steering committee of staff from Sound Transit, RTID, WSDOT and PSRC, which meets monthly; an ad hoc group of the executives of these organizations, which has met once so far; and a joint executive committee, which has met quarterly. In addition, the steering committee has formed technical staff teams on finance, planning and public outreach. The agencies have set up schedules to align their packages for a consolidated approach. (See Tab 10 in the meeting notebook.)

The RTID's focus is on highways of statewide significance in the region, with a goal of congestion relief. The Alaskan Way Viaduct and State Route 520 have received the most publicity. In the last legislative session, the legislature changed the RTID's revenue authority to drop the sales tax authority to one-tenth (0.1%) but to add some MVET authority. RTID was encouraged to make maximum use of funds from the Transportation Partnership Act and the Nickel package and to keep the package affordable. A revised blueprint will be presented to the RTID Board on January 26. Board action on the package is expected on February 8.

RTID and Sound Transit have planned a number of joint activities (see meeting handout). Regarding financial issues, the two agencies use a common independent revenue forecast and similar bonding assumptions. However, they use somewhat different cost escalation assumptions because of differences in the construction commodities that roads and transit need. They also have somewhat different calculations on sales tax and MVET revenues.

Regarding the vote, Sound Transit and RTID are asking the legislature to approve a single ballot question, since both must pass for either to pass. The ballot title will need to describe which taxes apply to which aspect of the transportation system. Another challenge is that the two programs have somewhat different boundaries, with the RTID extending into northern Snohomish County, while Sound Transit includes only the southern portion of that county. There is a model for such a vote, however, in a prior vote on Metro that required votes in the City of Seattle and in the rest of King County. In the current instance, the votes would be counted within the Sound Transit district; then votes would be counted for the RTID district, which includes all of the Sound Transit district.

Work is also being done to coordinate construction sequencing of RTID and Sound Transit projects. There are several moving parts to sequencing, however: political considerations, cash flow, construction readiness and shut downs for construction. RTID is required to do construction mitigation according to the number of trips impacted.

## **Questions from the Panel**

### **Finance**

Q. What does it mean to have the same sales tax forecast but different revenue calculations?

A. Both ST2 revenues and RTID revenues would come from sales and use taxes and MVET. Sound Transit would get most of its revenue from sales tax, while the RTID's proposed revenues

would come mostly from MVET. The revenue calculations are different because for RTID the use tax element for auto sales applies to the purchase of an automobile outside the district.

Q. What percent of RTID's revenues come from MVET and what percent from sales tax?

A. Roughly there is one-third reliance on sales tax and two-thirds on MVET.

Q. Are RTID and Sound Transit coordinating on bonding?

A. The agencies have agreement to use the same term for the bonds so they are in alignment. The RTID is working to get state backing of its bonds so as to get a better rate, since it does not have a history with bond sales yet.

Q. Will bonding for RTID's project be under RTID's name?

A. WSDOT's financial staff are doing the modeling to look at when the optimal point is to bring in each agency's funds. They will also look at who will be doing the debt issuance.

Q. Does the sales tax continue for a certain number of years?

A. For RTID the assumption is that once the debt is retired in 25 to 30 years, the tax ends since there's no operating cost. One gray area is that RTID can help to fund transit in its traffic mitigation plan, but it does not have authority to fund ongoing operations.

Q. In other states there is a requirement to fund operations.

A. The premise of Sound Move is that the system is created in phases. Once it is built, the agency could either roll back the taxes or seek an additional phase.

Q. Is RTID subject to subarea equity analysis?

A. There is equity required by county but no requirement for smaller sub areas.

### **Ballot Measure**

Q. Given the requirement to bring the two packages to one vote, how do you integrate how the taxes are used?

A. These accounting issues will need to be worked out, but the ballot title has to be explicit.

Q. Do the governing bodies of the three counties have to approve the RTID measure before it goes on the ballot?

A. Yes. In March or April 2007 the RTID planning committee will vote on the package. This committee is made up of representatives from the three counties. Then in April or May each county council has to vote to approve putting the measure on the ballot. The county deadline for the ballot is August.

Q. If there is a City of Seattle advisory vote on the viaduct, how does this affect RTID?

A. RTID hopes that vote, if any, will take place in March, since RTID is scheduled to have its final plan complete by April.

Q. What kind of information will there be about overall system benefits from the two packages?

A. Sound Transit does not contemplate any new analysis on the benefits of transit. But Sound Transit, WSDOT and PSRC are working together to look at the impact of both packages by

corridor, and how mobility will be improved. The overall system benefit may not appear large, however, because of population growth happening at the same time.

### **Panel Request**

The Panel requested more information on the Metro vote precedent for handling votes from overlapping areas.

### **Financial Analysis**

#### **Brian McCartan and Doug Wentworth (Sound Transit)**

##### **Assumptions and Inflation Forecasts**

Brian McCartan reviewed the Policy and Programmatic Assumptions, and Sound Transit's inflation forecasting of construction cost increases (see Tab 12 in the meeting notebook). Inflation indices used include the Consumer Price Index (CPI) for Seattle, the Building Cost Index (BCI), which is regionalized for the Seattle area, and a right-of-way index developed by Forecasting and Business Analytics for Sound Transit. The CPI trend has been on average over time a 3.6 percent increase. The right-of-way index is based on a historic analysis of price changes of property combined with a financial forecast, with a 2 percent contingency added. Right-of-way costs are the most problematic to forecast.

##### **Sensitivity Analysis**

The sensitivity analysis included seven inputs, plus an eighth scenario to change multiple variables as the Panel had suggested (see meeting handout and PowerPoint). For each, the analysis considers the value at which Sound Transit would reach the agency's maximum debt service coverage ratio.

##### **Debt-Equity Ratio**

Sound Transit's authorizing legislation requires conducting a debt-equity analysis. This tool is more typically used for a publicly held company, so Sound Transit had to define what this means for the agency (see meeting handout). The resulting graph settles at a 0.4 ratio.

##### **Questions from the Panel**

###### **Assumptions and Inflation Forecasts**

Q. Have you gotten a right-of-way forecast from another source to confirm your thinking?

A. We have used three different methodologies over several years, but it is a good area to continue reviewing.

Q. There are several layers of risk on right-of-way costs: the number you start with, changes over time, and the consequences of substantial delay. How do you incorporate these risks in your planning?

A. Schedule slippage would help us financially since Sound Transit will be collecting taxes during that time.

*[Note: Clarification from Paul Arnold later in the meeting:]* For right-of-way purchases, Sound Transit uses a parcel-based cost estimate plus a 20 percent contingency factor for full "takes" to be used for relocation, plus 20 percent for right-of-way administration. There is also a 1.4 percent contingency included. So there is significant contingency built in.

Q. Is there any difference in right-of-way costs for property rights underground for tunnels?  
A. Not that we have seen. There have been instances, however, where a developer who knew there was a Sound Transit station planned got the rights to nearby property, which increased the value of the project's land.

Q. Is there any uncertainty about whether Sound Transit buys right-of-way or WSDOT does?  
A. No uncertainty I am aware of. Sound Transit has a land bank agreement with WSDOT.

Q. What percent of the budget is for right-of-way purchases?  
A. It might be 20 percent.

Q. The cost indices described in yesterday's presentation about inflating 2005 to 2006 costs showed quite a large increase. Which indices did you review for long-term forecasts?  
A. The CPI is a clear choice. The right-of-way index is unique to Sound Transit. There are a number of indices that are appropriate for roads, but for light rail more of the costs are in wages rather than in commodities. The BCI includes a wage component.

Q. What are the differences in bonding assumptions between Sound Transit and RTID?  
A. The major difference is that Sound Transit assumes a five-year interest-only period, and RTID does not. [Note: Mr. MCartan will send a chart to John Howell with more detail on the differences.]

Q. Are there differences in inflation assumptions between Sound Transit and RTID for construction costs?  
A. WSDOT uses three indices, but relies more on the engineering cost index, which includes more highway construction commodities than does the CPI. WSDOT then applies an additional 4 percent inflation for megaprojects. For right-of-way, they use a statewide index, while Sound Transit's is for the Puget Sound region, and is higher.

Q. What is the relationship between the BCI and Engineering Week's Construction Cost Index?  
A. The BCI is weighted more heavily on labor costs.

### **Sensitivity Analysis**

Q. Were there any big "take-aways" from the sensitivity analysis?  
A. The analysis indicates that the biggest risks result from a higher increase in inflation than projected, or slower revenue growth.

Q. Was it surprising when running multiple variables how little wiggle room there is?  
A. We had a sense of this, but the result was a little surprising.

Q. Did you find any one area that is more susceptible to affecting the results than another?  
A. We did not directly look at this question, but could address it by looking at volatility over time as part of the risk analysis.

## **Debt-Equity Ratio**

Q. Does your 0.4 ratio mean that approximately 40 percent of expenditures are funded with debt and 60 percent with cash?

A. Roughly, yes.

Q. Are you recommending to the Board that they not let the debt get beyond this ratio?

A. Yes, and also that it has a cumulative effect.

Q. Have you had any discussion with rating agencies about this question?

A. On the bond issues so far, this question has not arisen.

## **Tax Impact**

Q. Yesterday a speaker said that the tax impact can be described for the public as \$125 per household per year. How was this derived?

A. This factor comes from King County's work to prepare for its recent 0.1 percent ballot measure for transportation. Their economists used the estimated population and average household size, and divided by the average tax. For a 0.1 percent tax they found the impact at \$25/household, so our 0.5 percent tax would be \$125/household. This is for a *median* household, not the mean. Sound Transit confirmed this number using sales tax data from the state Department of Revenue. The median household income is \$50,000 to \$60,000, with \$1,700 paid annually in sales tax at 8.6 percent. Sound Transit's added tax would be \$99 per household in 2004 dollars, so would be approximately \$110 inflated.

Q. Another commonly used way to state the impact is to use a relatively modest household income, such as \$30,000, and let people extrapolate their individual circumstances from that example.

A. We could try that but do not have very up-to-date information on taxes per household.

## ***Identification of Sound Transit Statutory Requirements for ST2 Planning***

### **Steve Lundin (Panel member)**

The state statutes include a list of requirements for expert review panels such as this one. (See Tab 13 in the meeting notebook.) One point that Sound Transit may need to address is a requirement that the plan to be submitted to the voters must include certain project elements, one of which is HOV lanes. Sound Transit may need to make a clear statement that ST2 does not include funding for HOV lanes.

[*Note:* Legal counsel for Sound Transit will provide a summary for the Panel indicating how Sound Transit has complied with the regulatory requirements.]

## ***Summary of Outstanding Issues, Questions or Findings***

Chairman Meyer explained that because the Sound Transit Board meets in only four business days (on January 11), the Panel will need to prepare its letter of comment immediately. The Panel decided to prepare two letters—one to the Board on policy issues, and one to the staff on more technical issues. The sections for the letter to the Board need to be completed and sent to Mike Meyer by Monday, January 8, 2007.

The Panel briefly discussed a list of issues from the meeting discussion, and which topics each letter would address, and who would draft each point. The results of this discussion were as follows.

### **Letter to the Board (policy issues)**

1. A recommendation that Sound Transit continue to pursue actively the potential for private investment options, especially for stations and possibly for station operation and maintenance. *To be drafted by:* Tom Schmitt.

*Discussion:* It is important to note the difference between formal public/private partnerships and getting funding from affected entities in the corridor. The statute seems to require seeking partnerships. One recommendation might be that Sound Transit set up a small, special staff team to look at the potential for private investment, and invite discussions with private groups. It is important to address this in the planning stages. The MARTA system in Atlanta could provide some lessons and examples.

2. Additional outreach to jurisdictions to try to reach agreement on project planning scope, and get agreed-on term sheets where possible. *To be drafted by:* Bill Lorenz.

*Discussion:* The Panel has made this recommendation before, and several Panel members believe it is important to emphasize. Sound Transit might make a plan to get term sheets, even if it is still too early now to get this level of agreement.

3. While the risk assessment is state-of-the-art, the Panel had some questions about the conclusions, particularly the presentation of results as “confidence levels.” *To be drafted by:* Mike Meyer.

*Discussion:* While this is a technical issue, putting it in the Board’s letter will provide some assurance to the Board that the methodology is sound and the analysis well done. The Panel’s caution is on interpreting the results. The Panel might also say, based on Mike Morrison’s work, that Sound Transit’s cost estimating methodology appears to be sound and reasonable.

4. Questions about the size and number of maintenance bases. *To be drafted by:* Alan Kiepper.

*Discussion:* The Panel’s comment is that since maintenance bases are expensive to build, staff and equip, there should be as few as possible to service the operations.

5. Coordination with the RTID. *To be drafted by:* Mike Meyer.

*Discussion:* Panel members did not think they had enough information to make a judgment about the coordination. But the Panel’s letter should say that the Panel’s impression is that coordination is appropriate, and the Panel saw no issues raised by the presentation.

### **Letter to the Staff (technical issues)**

1. Questions about using the public opinion survey as an indicator of public interest, given some uncertainty about how the questions were phrased. *To be drafted by:* Mike Meyer.

*Discussion:* The issue is the need for care in terms of both phrasing questions for surveys of the public, and in interpretation of the results.

2. The Panel's follow-up request to get a copy of the agreement between WSDOT and Sound Transit as co-leads for the I-90 EIS.
3. How the I-90 EIS will address issues related to seismic stability, tsunami effects, and how the light rail will affect the life of the bridge. The prototypical model of the transition joint on the I-90 bridge. *To be drafted by:* Tom Schmitt.  
*Discussion:* Do any of the issues related to the 520 bridge also affect the I-90 bridge? The Panel might suggest physical modeling, and request more information on electrical. The Panel will also express appreciation for the work done so far to respond to the Panel's questions and concerns about light rail on the bridge.
4. The right-of-way forecasts, and whether they have been peer reviewed. Whether the 2 percent contingency on top of the right-of-way forecast is sufficient. *To be drafted by:* Darlene Cimino-DeRose and Siim Sööt.  
*Discussion:* This is a very difficult issue with a great deal of uncertainty for forecasting. Perhaps this high level of uncertainty should be noted in any information going to the public. The questions the Panel has are: How much of a driver are right-of-way costs? If they are a driver, do assessors' data help in forecasting? The Panel had previously requested information on historic trends in each subarea to get an idea of the subregional differences in right-of-way.
5. Comment that when providing a cost per household to describe the tax impact, it is more common to use a household of more modest means, such as \$30,000, and to state clearly the annual income of the household. *To be drafted by:* Siim Sööt.
6. Whether additional sensitivity analysis is needed. *To be drafted by:* Darlene Cimino-DeRose.
7. Questions on the size of the fleet, how that level was determined, and the impact on the maintenance base needs. *To be drafted by:* Alan Kiepper.  
*Discussion:* Some criteria should be developed to help determine when and where to build maintenance bases.
8. A question on the possible re-use of the boring machine from Beacon for additional tunneling at the University. *To be drafted by:* Bill Lorenz.  
*Discussion:* This would just be a comment that the staff should look at the opportunity to reuse the boring machine, given the high cost of this equipment.

### ***Scheduling Next Panel Meeting***

The next major action by the Sound Transit Board will be at its April 26, 2007, meeting. The Board will adopt a final plan on May 26, 2007. The objective of the next Panel meeting will be to hear updates and provide any comments to the Board on the approach and outreach.

Panel members made the following requests for information to review at the next meeting:

- updates on data regarding population projections,
- sales tax revenues based on population and inflation,

- median household income,
- employment growth, and
- any new forecasts PSRC has completed.

Sound Transit staff said that materials should be available by the end of March. The Panel tentatively set its next meeting for April 2-3, 2007. [*Note: After this meeting, the Panel meeting dates were changed to April 5-6, 2007.*]

The meeting adjourned at 2:15 PM.

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