Expert Review Panel for Sound Transit Phase 3 (ST3)

SUMMARY OF MEETING

July 13 – 14, 2015

Mayflower Park Hotel; Seattle, WA

Panel members present: Jim Jacobson, Chair; Mark Hallenbeck, Susan Haupt, Kimberly Koenig, William Lorenz, Steve Lundin, Siim Sööt, Richard Walker, Mark Weed; *Administrator:* John Howell

Panel member absent: Jay Kline

Presenters: David Beal, Karen Kitsis, Brant Lyerla, Brian McCartan, Al McCoy and Geoff Patrick of Sound Transit; Ben Bakkenta and Billy Charlton of Puget Sound Regional Council; Allison Dobbins and Robert Harbuck of Parsons Brinckerhoff

Members of the public who commented: Will Knedlik, Bob Pishue, John Niles

MONDAY, JULY 13, 2015

Welcome and Overview

Chair Jim Jacobson and Administrator John Howell

- Expert Review Panel (ERP) members received a sheet summarizing the panel's charge in statute as an easy reference.
- Plans to communicate the panel's questions and findings include:
    - At the end of each meeting, listing panel members' questions and comments, and using that to draft a letter to the Secretary of Transportation and the CEO and Board Chair of Sound Transit.
    - Developing a letter of comment approximately halfway through the panel's work to the appointing authorities.
    - Preparing a formal panel report at the end of the panel process to be sent to the appointing authorities.
- Letters from the panel and the final report will be drafted by panel members and/or Panel Administrator John Howell, with drafts circulated to all panel members for review.

Panel comment:

- The panel is fully empowered now that the Legislature has approved Sound Transit's revenue authority for a ballot measure for ST3.

Administrator's Follow-up from Previous Meeting

John Howell

- *Ground Rules:* After the last meeting, there were suggestions to change the quorum from eight to seven panel members. The panel may change the ground rules, since they are not set in statute. There was a request to have the meeting dates as early as possible, even if the dates are tentative.

➲ **Decision:** The panel agreed to change the quorum for its meetings to seven panel members.

- *Meeting summaries:* The panel suggested that the summaries of its meeting could be shorter as long as doing so does not add work and does not omit information that might be important later.
- The May 4-5, 2015, meeting summary should be corrected as follows: on page 3, third line, change 50.8 percent to 58 percent.
- *Panel webpage:* Members were asked to review the webpage that is the public face of the panel's work (www.wsdot.wa.gov/partners/erp/), and send any comments to Mr. Howell.

Update from Sound Transit

David Beal (Sound Transit)

See presentation slides, "Developing Sound Transit's New System Plan." Additional information was as follows:

- *Property tax:* Including a property tax as one of three taxes for ST3 taxes (sales and use tax, motor vehicle excise tax [MVET], and property tax) would be a new revenue source for Sound Transit.
- *Board actions:* With the Legislature's approval of the tax authority, the Board plans to place the ST3 measure on the fall 2016 ballot.
- *Outreach:* The Board suggested that staff to do extensive public outreach on the draft projects list. This took place through meetings and online surveys. Staff are working with local jurisdictions to get their input on possible ST3 projects. Several jurisdictions have sent letters with suggestions for parking and station improvements (http://www.soundtransit.org/sites/default/files/2015_0723_ST3_PublicComments_AgenciesandJurisdictions.pdf).

Panel comments:

- *Public response:* The online survey was long, so getting a large number of responses indicates high interest. The public meetings seemed well attended. Suburban newspapers encouraged attendance.

Regional Land Use Vision, and Population and Employment Forecasts

Ben Bakkenta and Billy Charlton (Puget Sound Regional Council)

Regional planning. See presentation slides, "PSRC and Regional Planning." Additional information was as follows:

- *Targets:* Regional development plans date from 1990. VISION 2040, adopted in 2008, for the first time suggested priorities by giving numeric guidance and targets for each planning area.
- *Relation to Sound Transit:* Sound Transit's Long-Range Plan has a goal of connecting the regional growth centers PSRC has identified.
- *Projections:* The state provides population projections by county. PSRC provides regional employment forecasts. PSRC anticipates very aggressive growth for both. Growth is identified by county, with each city required to take part of the county's growth.

In response to panel members' questions, Mr. Bakkenta provided the following information:

- *Small cities:* Arlington and Marysville are too small to be considered regional growth centers but are counted as "regional places." They are also outside the Sound Transit defined boundary.
- *Housing:* Housing affordability is an ongoing issue in many jurisdictions. The housing section in the Multicounty Planning Policies includes tools to incent affordability. The City of Seattle has just released recommendations from a Mayor-appointed committee on affordability.
- *Targets:* PSRC's growth targets are policy-based and aspirational, based on the state's population projections. Each county negotiates a target number within the range the state has provided, then works with local jurisdictions to identify their targets, based on capacity to absorb growth. PSRC works with jurisdictions to agree on numbers for housing and jobs. The jurisdictions need to show they have made the land use changes needed to accept growth.
- *Lessons:* PSRC reviewed its forecasting approach approximately eight years ago against growth since the 1960s, and found its forecasts were close to actual.
- *Environment:* PSRC does not have its own environmental staff. Regional environmental planning is done by a multiagency group including the Puget Sound Clean Air Agency and universities.
- *Large cities:* PSRC treats urban growth centers the same, but encourages the five metropolitan cities (Bellevue, Seattle, Everett, Tacoma and Bremerton) to accommodate more growth in population and jobs since they serve more of their county. PSRC is considering whether there should be different types of centers for planning.
- *Transit needs:* PSRC has worked with cities as they update their comprehensive plans to consider transit and station areas, and to target growth there. Ultimately it is the local jurisdiction's responsibility to work with transit agencies on land use and the needs to support transit. PSRC offers best practices but has no authority in this regard.

Response to land use forecast questions. See the July 6, 2015, memo from Billy Charlton of PSRC to the Expert Review Panel members. In response to panel members' questions, Mr. Charlton provided the following additional information:

- *Employment and population forecasts in Sound Transit area:* The Sound Transit service area is a smaller part of the Puget Sound region with a higher concentration of jobs. The region's policies are concentrating population growth in the centers where jobs are. The planning process and funding mechanisms aim to concentrate the region's development in these areas. As a result, the ratio of employment to population within Sound Transit's boundaries is projected to be higher than the national average. We are one of the faster growing areas in the country, and the growth is occurring in core urban areas, not outlying areas. Half the growth is occurring outside the urban centers, but the half in the urban centers is taking place on only 6 percent of the land area.
- *In-commuting:* There will also be population growth outside the Sound Transit area, such as Thurston County, with some residents commuting to jobs in the Sound Transit area urban centers.

Sound Transit Ridership Forecasting Methodology

Brant Lyerla (Sound Transit)

See presentation slides, "Ridership Forecasting Methods" and maps labeled "CTR Survey Commute to Work Flows." Additional information was as follows:

- *Incremental Stage 1:* Sound Transit uses PSRC household and employment forecasts by Forecast Analysis Zone (FAZ) and applies them to transit trip data to estimate change in population and employment growth for future year ridership estimates. This stage is not used for current year ridership estimates.
- *Incremental Stage 2:* To estimate changes in congestion and travel costs, Sound Transit uses an assumption from PSRC's Transportation 2040 that future congestion will be similar to today but with all limited access highways tolled (per PSRC's *Transportation 2040* plan), resulting in a higher cost. Projected changes in parking costs are based on historical data that parking costs go up at the same rate as employment density. This stage is not used for current year ridership estimates.
- *Incremental Stage 3:* Sound Transit estimates changes in ridership spurred by new service that becomes available or if service is improved, such as greater speed.
- *Outputs:* Ridership forecasts are in ranges. A "project rider" is a Federal Transit Administration (FTA) measure defined as any rider using any part of the project, no matter where the rider boards. The outputs are for boardings; there is a separate process to identify new riders.

In response to panel members' questions, Mr. Lyerla provided the following information:

- *P*ark *and ride connections:* These connections are considered in the planning and project development process for identifying station locations.
- *Transit network:* The method assumes that bus service hours that are duplicative in a project corridor are reallocated within that corridor, providing connections.
- *Before and after comparison:* The only test of the methodology so far was the FTA New Starts project for Link from Westlake to Sea-Tac Airport. The 2020 forecast was 45,200 average weekday riders. Last year ridership was 33,000. The system has grown every year since it opened—by 13 percent in 2014, and this year to date by 6 percent. The main difference between the 2020 forecast and the trend line is for ridership in the Rainier Valley, as the expected development in that area has occurred only recently. The largest ridership growth has been connected to the recent recovery from the recession into the economic boom.
- *Comparison to PSRC model:* The projections for Sound Transit ridership and PSRC projections of transit trips in the region are similar. There is greater difference among individual transit routes than for the overall system projections.
- *Interplay of growth factors:* The methodology attempts to isolate the impact of various changes, such as employment growth and congestion. The factors could be combined by looking at these end results.
- *Station locations:* Each station adds up to one minute in travel time. The increase in time would impact riders' choices and transit use. For ST3 there is currently only an estimate of the number of stations.

- *Express service:* The current assumption is that there is no express service for the light rail system.
- *Trip reliability:* There are no criteria on transit compared to road trip reliability. It is represented in the base year in observed travel time. Grade-separated transit could be compared to a bus on the road.
- *Reverse commute:* The model is based on observed data, so should account for reverse commuters.
- *Effect of travel costs on ridership:* The effect of changes in highway travel time on ridership is not significant—at most 10 percent.

Panel comments:

- *Usefulness for long-term planning:* The methodology seems useful for the short term, but for the long term, it needs to capture a lot of factors, including employment growth, congestion, parking, etc.
- *Outputs:* It is useful to have projections for both boardings and for new riders.
- *Parking:* There is no linear relationship between employment density and parking density until a maximum is reached. Price corresponds to availability—as available spaces become fewer and demand is high, the price goes up. Price is tempered by employer subsidy, however. Historical data are fine to use unless there is a major shift in employment relative to the parking available now.
- *BRT comparison:* It would be interesting to compare the reliability of BRT to roadway reliability.
- *Tolling:* A sensitivity test could be done to remove the assumption of tolls. The current legislative package indicated tolling is not likely.
- *Reverse commute:* It might be useful to see if there is a way to identify the reverse commute ridership in the model. There may be existing survey data to draw on.

Operations and Maintenance (O & M) Cost Estimating

Al McCoy (Sound Transit)

See presentation slides, "ST3 Cost Estimating Methodology – O & M." Additional information was as follows:

- *Labor costs:* Sound Transit uses Metro's information on labor costs.
- *Forecast to actual:* Over the last four years, O & M costs have been within 1 to 2 percent per year of what was forecast.
- *Modifying for changes:* The cost estimates are in units so can be modified easily for changes in assumptions, such as the alignment or station locations. Cost estimates can be run for multiple scenarios.
- *Maintenance:* The model includes maintenance tasks that need to be done over time. These assumptions were developed by Sound Transit's Maintenance Manager. The vehicle life is 30 to 35 years.

Panel requests:

- Request for cost data for five or six years and a comparison with the forecast costs.
- Request for O & M cost projections for East Link when ST2 was planned and a comparison with the current East Link cost projections.

Evaluation Methodology

Karen Kitsis (Sound Transit) and Allison Dobbins (Parsons Brinckerhoff)

See presentation slides, "ST3: Evaluation Methodology." In response to panel members' questions, Ms. Dobbins and Ms. Kitsis provided the following information:

- *Cost Effectiveness:* The ridership evaluation factors do not currently include the cost per rider or cost per new rider. However, an index for these costs could be developed using the capital costs.
- *Farebox recovery:* The Sound Transit Board set targets for the near-term and the five-year plan. Staff adjust the five-year targets for the 20-year plan, balancing O & M costs and ridership.
- *System integration:* Examples of qualitative assessment are the number of times a bus stops at a connection point for other transit services, and the number of daily stops at that point by other transit services. Sound Transit asks local transit services how they would adjust if light rail came to their area. Since plans are still in representative alignment form, this information is general.
- *Weighting:* Currently, the evaluation criteria are not weighted. The Board may choose to do so in the next phase.
- *Transit-oriented development (TOD):* The Sound Transit Board wants to know the implications of their choices on land use. Staff conducted a TOD analysis within one-half mile of potential station locations.
- *Board action on evaluation criteria:* The Sound Transit Board has been briefed in general on the evaluation criteria. There will be further conversation with the Board, but a Board vote on the criteria is not expected.

Panel comments:

- *Cost per rider:* Sound Transit should evaluate the cost per rider and per new rider. If Sound Transit does not provide this information, someone else might calculate it after the ballot measure is introduced.
- *Farebox recovery:* Consider farebox recovery as an evaluation criterion.
- *Land use and coordination with local jurisdictions:* It is important to have criteria for a station location, such as developable land and a location accessible on foot or where a city will put parking. Sound Transit needs to be able to tell cities/entities that want a station at a given location that the city needs to be able to show how it will help people access the station (parking, zoning, etc.). The sooner these conversations take place, the better. Sound Transit should start talking now with Boeing and other large property owners at Paine Field, for example.
- *Affordable housing and transit-oriented development:* There was discussion in the Legislature that Sound Transit should be involved in the development of affordable housing by making its

surplus properties available to cities. An evaluation criterion could be whether there is more opportunity for affordable housing development near one station site over another.

- *Qualitative vs. quantitative:* Evaluation criteria that are quantitative are more useful than qualitative criteria. Sound Transit should use quantitative criteria as much as possible.

ST3 Financial Plan

Brian McCartan and Brian Stout (Sound Transit)

See presentation slides, "ST3 Financial Plan."

Background. In response to panel members' questions, Mr. McCartan provided the following information:

- *Consumer price index (CPI):* The CPI forecast is aligned with Sound Transit's revenue forecast, which is done in-house.
- *Growth percentage:* Sound Transit's assumed growth rate in revenues (4 percent) is lower than the region's average annual growth (6 percent) to account for the recent recession.
- *Sales tax:* There is sales tax on goods and services in Washington; there is no state income tax.
- *Stress testing:* Sound Transit develops a base financial plan, then stress tests it for various types of circumstances.
- *Effect of 2008 recession:* Because of the recession, Sound Transit lost one-quarter of its forecasted revenue. In response, the Board was pro-active by reducing contingencies, doing without the 15 percent cushion that had been built into the financial plan, and suspending funding for certain projects, which together would have been approximately $1 billion. The suspended projects are on the list to consider for ST3. Sound Transit is still 23 percent lower in revenue than forecasted for ST2, but can deliver 95 percent of the project by 2023.
- *Other taxes:* Sound Transit was authorized to collect a few other taxes it has not imposed, such as a tax on rental cars and a $2 per employee tax.

Panel request:

- In the 2013 Taxable Sales pie chart, find out what is included in the "Gasoline stations" category that is 12 percent of taxable sales.

ST3 Financial Model. In response to panel members' questions, Mr. Stout provided the following information:

- *Farebox recovery:* The farebox recovery rate of 40 percent for light rail is a Board policy goal. This is 40 percent of the operating cost, not the capital cost.
- *ST2 funding and connection to ST3:* The ST2 model goes to 2052. Once the ST2 capital program is finished in 2023, the taxes could be rolled back or used to help fund ST3. Part of the ST3 plan includes continuing the taxes from ST2.
- *Inflation forecasts:* Sound Transit uses forecasts of the CPI, Construction Cost Index and Right-of-Way Index. One of the stress tests for the financial plan is how much would one of these indices have to go up to "break" the model.

- *Subarea equity:* This will be a key policy decision for the Board for ST3. The state requirement is at the county level and is a matter of disclosure rather than fairness. As the system is built out and riders are crossing subareas, it is more challenging to identify which subarea is benefitting. The current subarea equity policy has been established by the Sound Transit Board.
- *Debt-equity ratio:* It is unusual to conduct this analysis for an agency like Sound Transit. But it is a requirement of state law. Generally, the ratio is small to begin and high at the end of the capital program.

Panel request:

- What assumptions are being made about the amount of federal New Starts funding included in ST3? What percentage of the total New Starts funding does that represent?
- How much regional federal grant funding is assumed as revenue for ST3? What percentage of the total available federal grant funds does that represent?

Panel Discussion

Mr. Howell summarized the panel's questions and issues raised. [Note: See the end of the July 14 meeting, below, which includes both days' lists.]

Public Comment

Will Knedlik is president of Eastside Rail Now. He drew the panel's attention to an issue regarding the I-90 floating bridge. He said that although the state created a checklist of requirements for transit on the I-90 bridge seven years ago, Sound Transit has not yet completed a hazard analysis or a wind and wave analysis for the bridge. These analyses are needed before the next steps for light rail on the bridge can take place. Mr. Knedlik has sent letters to the Secretary of Transportation about the bridge related to ST2 and ST3. He recommended that the panel look into the matter in its review of costs and financing for ST3. He provided a copy of the letter and will send a web address to Mr. Howell to send to members.

Bob Pishue is Transportation Director of the Washington Policy Center. He expressed concern about Sound Transit's ridership projections compared to actual. The ridership projected for 2011 has just been met now in 2015. Also, the Policy Center's research on Sound Transit's financial plan showed that if Sound Transit adjusted interest rates to a more realistic but still conservative level, it could build $2 billion more in rail. Mr. Pishue said that PSRC's projections for growth in urban centers have turned out to be too high and that the FTA noted that growth in downtown Seattle has not been as projected.

TUESDAY, JULY 14, 2015

Capital Cost Estimation Methodology

Robert Harbuck (Parsons Brinckerhoff)

See presentation slides, "Capital Cost Estimation Methodology." In response to panel members' questions, Mr. Harbuck provided the following information:

- *Contingency:* Unallocated contingency is 20 percent. For items in FTA Standard Cost Categories (SCC) 10 through 50, allocated contingency is 30 percent. In addition, for each item there is a 1 percent for art allowance and a 10 percent change order contingency.
- *Right-of-way:* The range for right-of-way estimates is plus or minus 15 percent. Sound Transit uses the cost estimate as the low end of the range.
- *Sales tax:* The estimates are based on the current sales tax. The sales tax rate applies to the location where materials are delivered. The wage rates used in cost estimates are King County's prevailing wages.
- *Support facilities (SCC30):* Sound Transit estimates costs for yards and shops based on layouts for facilities of varied sizes and historical data. The forecasted need for vehicles and maximum capacity of the corridor indicate the size of yard needed.
- *Vehicles:* Sound Transit estimates the number of vehicles needed based on the assumed lines and how they connect with the system. Initially Sound Transit estimates at the high end. When the Board develops a draft plan, staff will revise the vehicle estimate.
- *Coordination with other transit systems:* Sound Transit shares bus facilities with King County Metro and has been discussing future support facilities needs with Metro. Other than Tacoma Link, Sound Transit purchases all its services rather than operating them directly. So developing a shared base could limit options later on. The current Sound Transit Board Chair, who is also the King County Executive, has urged a more innovative and shared system.
- *Internal agency cost:* Internal Sound Transit cost is included in Professional Services under "Admin."
- *Relation of contingency to total cost:* Sound Transit's use of 30 percent for allocated contingency, plus 1 percent for art, plus 20 percent for unallocated contingency, then considering a high and a low, effectively doubles the cost. The level of contingency has been established by policy, based in large part by experience with Sound Move and ST2. There are ongoing discussions within Sound Transit about the amounts of contingency to use. In some categories, the costs are more stable. The biggest unknowns are the development of the guideway and ancillary improvements, such as utilities. Sound Transit uses a 10 percent contingency for construction contracts. As the project advances to final design, the contingencies will go down.
- *Comparison to ST2 estimating:* For Sound Move, almost every project was over the estimated cost. At the time of the ST2 ballot measure, Sound Transit was estimating base cost plus 15 percent contingency. However, shortly after the election, the recession started. Sound Transit retained the allocated contingencies, but removed the 15 percent contingency. Many of the ST2

projects have met or are coming in on budget. Two that are not under budget are the satellite maintenance base and East Link, both of which have had scope changes.

- *Cost estimates and bidding:* When Sound Transit opens a project for bid, it provides all the information contractors need to estimate the requirements and costs. The cost estimates assume the projects are design-bid-build.
- *Scope Changes:* The cost estimates are for an assumed scope. The contingency accounts for variances in the design but not for scope changes.

Panel information requests and comments:

- *Sales tax:* Identify how or whether the different sales tax rates in the different jurisdictions will affect the estimates of sale taxes.
- *Right-of way:* The right-of-way profile factors adjustment for deep tunnel says 0.50 on slide 12 but 0.05 in the material in Tab 6. Sound Transit needs to clarify which is correct.
- *Contingency:* The ST2 Expert Review Panel was concerned that there was not enough contingency for the program to meet schedule and budget. The contingencies for ST3 appear high but are not out of line at this early stage. However, management needs to be watchful that costs do not increase to match contingency.
- *Relation of bids to estimates:* If bids come in lower than the estimates, Sound Transit will have funds for other projects or can reduce the sales tax in later years. It is better to estimate on the high end.
- *Local buy*-in: To avoid later changes in scope, Sound Transit needs to be sure there is buy-in from local jurisdictions. In advance of the Board making final decisions, Sound Transit should get letters from local jurisdictions confirming they understand and agree on the alignment, stations, etc., that affect their community. The Sound Transit Board members may be able to help with this, since they are leaders in their city or area.

Public Outreach and Engagement

Geoff Patrick and Karen Kitsis (Sound Transit)

See presentation slides, "Public Involvement"; brochure, "Where Will Sound Transit Take You Tomorrow?" and chart dated June 4, 2015, "Draft Priority Projects List." In response to panel members' questions, Mr. Patrick and Ms. Kitsis provided the following information.

Outreach:

- *Public concerns and interest:* In a survey in late 2014, one-third of respondents in the region said transportation was a top concern. During the June 4 – July 8 public involvement effort, there was good attendance at the six public meetings, 200 written comments were submitted, more than 20,000 online surveys filled out and 900 comments submitted online. Approximately 300 people wrote a response on what else Sound Transit should provide. Staff will provide a summary of the public comments to the July 23 Board meeting (http://soundtransit3.org/Media/Default/Document%20Library%20Featured/ST3_Public_Comment_Documents/2015_0723__DPPL_OutreachOverviewMemo_FINAL.pdf).

- *Ongoing public outreach:* The new website for public involvement (soundtransit3.org) will continue and will add a blog on topics the Board is discussing. The next formal period of public involvement will be in early 2016 when the Board adopts a draft system plan.
- *Public involvement compared to ST2:* Attendance at public meetings for ST3 has been similar to that for ST2 and Sound Transit's Long-Range Plan update last year. There have been more online responses for ST3 so far than for ST2 thanks to social media.
- *New or existing audiences:* Sound Transit can identify which list or approach generated survey responses, but it is not possible to precisely estimate the number of new participants by subtracting the existing email lists.
- *Statistically valid survey:* The people who responded to the June – July outreach were self-selected. Sound Transit plans to conduct a random telephone survey in the fall when the Board starts to identify the potential package. Sound Transit's scientifically produced survey in December 2014 provides some insights on public interest and concerns.

Potential project list:

- *Trunk and branch approach:* Sound Transit is working with local transit agencies to provide services bringing riders to park and rides near light rail. Trunk and branch service raises O & M costs. WSDOT's I-405 Master Plan looked at high-capacity transit (HCT) on I-405 as both trunk and branch and as a single route.
- *Status of "*draft priority projects": The long-range plan listed several hundred possible projects. The Draft Priority Projects list was drawn from those for public input. At the August Board meeting, the Board will update the list.
- *Environmental regulations:* The outreach to local jurisdictions is separate from coordination on environmental regulations, including the National Environmental Policy Act (NEPA).

Panel information requests:

- *Environmental considerations:* Susan Haupt has a number of questions to ask the Sound Transit staff who are coordinating environmental requirements.
- *Ridership projections graph (slide 8):* Siim Sööt requested information on how the projected ridership was calculated and how PSRC data were used. He was especially interested in the increase in ridership between 2023 and 2025, after the last projects of ST3 are in service.
- *Survey data:* The panel would like to see the December 2014 survey results.

Preview of Potential ST3 Project Template

Karen Kitsis (Sound Transit

See presentation slides, "Draft Priority Project List" and sample project template. In response to panel members' questions, Ms. Kitsis provided the following additional information:

- *Project partners:* Partnership commitments happen later in the process after the Board has identified an alignment. Coordination considerations will also be noted in the "Key Issues and Benefits" section of the template. Project partners will be asked to comment on and confirm the project forms.

- *Types of partnerships:* There are two types of partnerships— (1) coordination in corridor activities and land use; and (2) financial partnerships. For ST2 these were identified after the planning stage. For a large commitment, such as for Paine Field, the staff will provide information to the Board and ask for their direction.
- *Project template:* There will be a project form for each project in the draft and final system plan. Staff will continue to revise and refine the project forms.
- *Use of template by Board:* The Board will have an early version of the project forms (with cash flow and timing still to be determined) in the fall when they consider the project list and select projects to include in ST3.
- *Project selection:* It would be a challenge to complete a template for all of the potential projects. Once the Board has selected projects, they can also identify those they would like to do if funds are available.
- *Alignment:* For some corridors there are several possible alignments. The Board will develop a representative alignment to capture to cost of the project before getting to the project development stage.

Panel comments:

- *Risk/Complexity:* Consider including the Risk/Complexity information (now in the description part of the form) into the "Key Issues and Benefits" section.
- *Project partners:* The panel suggested adding "jurisdiction/partner concurrency with scope" on the project template. This is especially important for large/expensive projects, such as Paine Field.
- *Agreement on alignment:* Sound Transit should ask local jurisdictions whether they support the alignment (bridge, tunnel, aerial, or at-grade) as described in the project form. If a city wants a more expensive alignment, Sound Transit should ask what they will do to make it work.
- *Term sheets:* Sound Transit should work with local jurisdictions and elected officials to get written terms sheets that make clear what each party is agreeing to. There might need to be two sets—an early one on structure and a more detailed one later in the planning stage.
- *Public information:* At the time of the ballot measure, it will be helpful to list any partnership commitments.

Public Comment

John Niles is a research associate at the Transportation Institute and at the Center for Advanced Transportation and Energy solutions. He expressed concern about a discrepancy between the ridership forecasts of Sound Transit and the PSRC. The PSRC's Transportation 2040 shows a rail transit ridership forecast that is half of what Sound Transit projects for 2030. While the discrepancy may have to do with differences in methodology, it is confusing to the public when agencies use different forecasts. Sound Transit would be wise to resolve this discrepancy for the public.

Next Steps

Mr. Howell provided the following list of requests and comments the panel made during the two-day meeting to consider for a letter from the panel:

PSRC Presentation

1. There will be continued discussions with PSRC staff to better understand the relationship between regional population and employment forecasts. Additional comments or questions may result from those conversations.

Ridership Forecasting

2. The assumptions used in the modeling regarding freeway congestion, freeway tolling, and parking costs do not seem to be reasonable.
3. The Panel would like to see the FTA's review of the Sound Transit ridership forecast model
4. What kind of sensitivity analysis does Sound Transit conduct on its ridership forecast? What are the main drivers of any sensitivity in the forecast? If the analysis has been done, the Panel would like to review it. If it hasn't been done, the Panel suggests that Sound Transit conduct a sensitivity analysis.
5. The Panel would like to see the documentation of the model
6. Has Sound Transit considered the potential for light rail express service?
7. The Panel would like to better understand system capacity constraints. Once ST2 is fully implemented, how close will the light rail system be to full capacity? With both ST2 and ST3 implemented, how close will the system be to full capacity?

Operations and Maintenance Cost Estimating

8. Provide a summary of the original ST2 O&M cost estimates vs. the current estimates for O&M expenses.
9. How have original forecasted O&M expenses compared to actuals where Sound Transit has operating experience?

Evaluation Methodology

10. Consider including a measure for cost effectiveness, such as cost per rider and cost per new rider.
11. Look for opportunities to make the evaluation criteria more quantitative, with an understand that there is also a need for qualitative criteria, and a need for a good balance between the qualitative and quantitative measures
12. Consider weighting the criteria to express which of the criteria are more desirable than others.

Finance Plan

13. The Panel would like an explanation of the taxable sales chart.
14. What is the assumption about the percentage of the local pool of available federal grant funds that Sound Transit will secure for ST3?
15. How is sales tax revenue estimated in the modeling given the different sales tax rates in the different jurisdictions?

16. How much federal New Start funding is being assumed for ST3? What percentage of the estimated total available New Start money does that represent?

Capital Cost Estimating

17. The Panel would like a presentation at the next meeting regarding the philosophy, procedures, and practice for taking projects from cost estimation through project delivery, including how contingencies are adjusted along the way. Specific examples would be useful.
18. Would like to see a comparison between ST2 original cost estimates and current bids, or current estimates? What has changed and why?
19. Would like to see a comparison of Sound Transit contingencies with other peer agencies at this stage of planning and design.
20. What is the estimate of soft costs as a percentage of the total project cost? What have been historical soft costs as a percentage of the total project cost?
21. Has Sound Transit considered using an owner controlled insurance program (Sound Transit would procure insurance on behalf of contractors) as a strategy for reducing costs?

Public Outreach and Engagement

22. Would like to know how the ridership forecasts for 2015 – 2025 that are being used as part of the public outreach materials, have been developed.
23. Would like to see the results of the December 2014 poll commissioned by ST.

Project Templates

24. Suggest more clarification on the information regarding project partnerships. What commitments will be requested or are needed? Have any commitments been made?
25. Make sure that the information regarding risks and complexities is included in the summary of issues and benefits.
26. The Panel encourages Sound Transit to have agreement with jurisdictions on alignment and scope of proposed projects (including whether alignment will be at grade, below grade, or aerial, the number and vertical profile of planned stations (above ground or below ground), and the size of any parking structures or other access improvements to be made by Sound Transit) prior to submitting a measure to the ballot. The project template should have a summary of this agreement. Sound Transit should consider seeking approved project term sheets with all jurisdictions where ST3 projects are located.

Potential Additional Comments/Questions

27. Susan will be communicating with Sound Transit environmental staff. There could be additional comments or questions based on those conversations.

Mr. Howell will draft the requests and circulate the draft to the panel for their revisions. Mr. Howell also will work with Sound Transit to identify the next panel meeting date as soon as possible so that panel members can reserve the time on their calendars.