

January 8, 2007

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<p>Mr. Douglas B. MacDonald Secretary of Transportation Washington State Department of Transportation 310 Maple Park S.E. P.O. Box 47316 Olympia, WA 98501</p>	<p>Senator Mary Margaret Haugen, Chair Senate Transportation Committee 10<sup>th</sup> Legislative District 305 John A. Cherberg Building Olympia, WA 98504-0410</p>
<p>Joni Earl Chief Executive Officer Sound Transit 401 South Jackson Seattle, WA 98104-2826</p>	<p>John W. Ladenburg Board Chair Sound Transit 401 South Jackson Seattle, WA 98104-2826</p>

Dear Madams and Sirs:

This is the fifth formal letter from the Expert Review Panel (Panel) regarding Sound Transit's efforts to develop a package of proposed improvements, known as Sound Transit 2 (ST2), to be submitted to voters.

The Panel met last week, January 4<sup>th</sup> and 5<sup>th</sup> to review the most recent planning activities around ST2, capital cost updates for potential projects, coordination between Sound Transit and the Regional Transportation Improvement District (RTID), and updates to the ST2 financial plan. Panel members wanted to meet in advance of the Sound Transit Board meeting on January 11<sup>th</sup>, at which time they are expected to make a preliminary decision about an ST2 investment plan for public review and comment. Comments from last week's meeting will be divided into two segments – with two separate letters. This letter will include our comments on policy matters we believe the Sound Transit Board should consider as it makes decisions

about the preliminary preferred ST2 investment plan. The second letter will include more detailed technical comments about the materials we reviewed last week.

### **Third Party (Jurisdictional) Agreements**

In previous letters the Panel has suggested that Sound Transit attempt to secure agreement on ST2 project scopes, schedules and budgets with local jurisdictions. One of the lessons learned from Sound Move, and experienced by many agencies constructing regional transportation systems, is that negotiations with local public and private entities, after a public vote on funding, can significantly increase project scopes and budgets, and delay project implementation. As reported in the Panel's October 2006 letter, Sound Transit has made considerable effort to secure agreements on project planning scopes from every municipality where an ST2 project will be located. Sound Transit staff reported last week that they have now received letters from all but five of the municipal or county governments. The Panel was pleased to see this continued outreach effort with local governments.

However, the October letter also suggested that Sound Transit work to increase the level of formality it achieves in reaching agreement on project scopes. It was suggested that where possible, Sound Transit should attempt to develop term sheets as the next step toward formalizing mutual understanding about the project scope and clarifying responsibilities with respect to project implementation. Sound Transit's response to the October letter stated that "...it may not be possible to conclude inter-local agreements on project implementation prior to the adoption of a final ST2 Plan. Such agreements customarily are finalized during and after conclusion of project-level environmental processes, which in many cases will be several years in the offing."

At last week's meeting the Panel members acknowledged that not all projects lend themselves to creation of a term sheet at this stage. However, they continue to suggest that Sound Transit should pursue more formal agreements where appropriate. For example, the Panel understands that for ST2 light rail projects that have identified only a representative alignment, creation of a term sheet may not be possible until EIS work is completed and a final alignment is selected. However, for many level three projects, where final project locations are known (i.e., Sounder stations, parking garages, transit center, and planning studies) development of term sheets would be appropriate.

### **Project Cost Estimates and Risk Assessment**

The panel reviewed several documents and heard presentations on three major planning efforts relating to cost estimates – an update of the 2005 base costs to 2006, a review of selected project cost estimates, and the application of a risk assessment methodology to project implementation and resulting cost uncertainties. The panel spent considerable time at our meeting (and two conference calls in advance) on these issues simply because cost estimating is one of the most important activities for transit system planning. The methodologies used and the assumptions associated with costs that occur at some future date are critical components of an overall comfort level with the planning effort, and as well with the level of credibility of the information presented for public consideration. We will discuss each of the three cost estimation activities separately.

Update of 2005 base costs to 2006 – Since future costs must be estimated from a current reference, having a good set of base costs is an important point of departure for a credible cost estimation process. The planning effort to date has been based on 2005 costs, and thus it is important to update these costs to 2006. The short-term escalation of costs has received a great deal of attention nationally given the steep increase in some commodity prices that have affected the cost of construction. Sound Transit examined several different cost escalation factors (construction, real estate, and vehicles), and examined several indices that track construction costs. They chose a 10 percent escalation factor on the basis of the analysis. The panel considers the overall approach and methodology used by Sound Transit for this analysis to be logical and well-supported. The 10 percent escalation factor is an appropriate factor to use for the period from 2005 to 2006.

Project Cost Estimating Methodology and Estimates – The panel engaged the services of an independent consultant to examine in more detail the cost estimation methodology and the resulting detailed cost estimates for selected projects in the draft ST2 plan. The consultant investigated how the cost estimation methodology was applied, the underlying assumptions associated with project-specific cost factors, and the reasonableness of the resulting cost estimates. The selective review focused on one large project, the proposed East Link light rail project. The analysis was conducted on the four elements of that project: 1) LRT along the I-90 corridor from Seattle to downtown Bellevue; 2) from Bellevue to the Overlake Transit Station (Microsoft); 3) from Overlake Transit Station to downtown Redmond; and 4) the construction of a maintenance facility on the east side.

The consultant concluded, and the panel agrees, that the cost estimates for the projects examined have been based on a consistent application of the approved cost estimation methodology and that the resulting cost estimates provide a good sense, at this stage of system planning, of the likely costs for ST2 candidate projects.

Risk Assessment Analysis -- The Sound Transit Board requested the staff to conduct a risk assessment analysis of proposed ST2 projects. The Board is to be commended for such a request at this early stage of planning. Risk assessment provides more information to the estimate of expected costs based on an understanding of where construction risks might exist in a project, the probability of such risks occurring, and the expected risk severity if such an event occurs. The panel reviewed a report prepared by Sound Transit consultants on the application of a risk assessment methodology to several ST2 projects. The methodology and model used for this assessment were very good, representing the state-of-the-practice for risk assessment in the transit industry.

The panel noted that in each of the three projects where risk assessment procedures were used, the resulting overall cost estimate was higher than the estimate based simply on the application of cost contingency factors, which is the approach that has been used in cost estimation to date. The panel does not believe, at this stage of planning, that this is a concern. The value of risk assessment at this stage is that it pinpoints components of project implementation that require greater attention for risk mitigation strategies during project development and construction.

In addition, the panel noted that the use of the phrase “x percent confidence” in the cost estimates, based on the risk assessment analysis, is inappropriate. The percentage values presented to the panel are nothing more than the relative values of the two methods of

calculating cost estimates, one based on contingency factors and the other on risk assessment procedures. Thus, a value of 86 percent associated with the cost estimates of a particular project is simply the cost estimate based on contingencies divided by the cost estimate based on risk assessment. This says nothing about the level of confidence associated with the contingency-based cost estimate.

### **Private Investment**

In previous letters the Panel has commented on the opportunities for Sound Transit to pursue private investment as part of the financial support for ST2. At last week's meeting, after further discussion of the ST2 projects likely to be included in the preferred investment plan, Panel members again discussed the potential for private investment. It is being raised again in this letter because it is the Panel's view (after discussing this issue with Sound Transit staff at several meetings during the past two years) that there continue to be private investment opportunities that could be pursued even at this planning stage of project development.

Washington State law directs transportation agencies to seek funding from the private sector and from government entities. RCW 81.104.130 (2), states that "*Agencies planning to construct and operate a high capacity transportation system should also seek other funds, including federal, state, local, and private sector assistance.*"

In particular, the Panel believes that the construction, maintenance and operation of the ST2 light rail stations offer significant opportunities for private financial support of the region's transportation objectives. While our discussions centered mostly around stations, Panel members believe that a thorough pursuit of private funding would result in many other opportunities. Moreover, the Panel suggests that in other jurisdictions, where transportation agencies have been successful in attracting private investment, opportunities for that investment have been explored at the project planning stage (the same stage of activity Sound Transit is currently at). Exploration of potential private partnerships is important to pursue at this early stage because the conceptual planning could affect the future design and engineering of an improvement.

Certainly any final agreements on private investment would require the selection of a final alignment and station locations. However, some proposed ST2 Sounder station locations are known, and the Panel members suggested several methods for exploring private funding opportunities for other projects during the planning stage. Some transit agencies establish special internal work groups to investigate the potential for private investment. Others solicit private sector teams made up of financial backers, contractors and engineering firms to propose financing, design, construction and operation plans for all or a portion of the transportation system. Panel members suggested that it would be instructive for Board members and staff to examine (perhaps visit) other transit systems that have leveraged significant private investment in the construction of their systems. The BART system in the San Francisco Bay Area and MARTA in Atlanta were mentioned as examples of systems that have secured private investment in station construction.

The Panel also discussed another form of private investment - the potential use of "benefit areas" or local improvement districts (as was used on the original financing of the Downtown Seattle Transit Tunnel and the new South Lake Union trolley). Sound Transit could work with local jurisdictions to develop "benefit areas" that would capture revenues for planned

improvements. This concept is based on the principle that property owners adjacent to new high capacity transit improvements benefit (in the form of increased property values) from those improvements.

While the Panel believes that private investment opportunities should be explored, it is important to note that the Panel is not suggesting that the ST2 financial plan be modified to include these potential funding sources.

Finally, Panel members discussed the potential to achieve additional public funding support for some ST2 projects. The Panel noted the opportunities to obtain financial support from local governments, especially if proposed facilities are enhanced at the request of those governments. For example, San Diego used additional funding from the City of San Diego and the Unified Port District to construct an underground tunnel for a portion of the light rail line. The cost differential was \$16 million to put the proposed at-grade alignment underground as it intersected with two streets.

### **Maintenance Facilities**

The Panel was briefed on the proposal to include two new maintenance bases in the ST2 investment plan. It has been proposed that new maintenance facilities be constructed in the south and east light rail corridors, with expansion of the Forest Street base (which is under construction south of downtown Seattle). The south and Forest Street stations will each accommodate 105 light rail cars, while the east base is expected to accommodate only 35 – 40 light rail vehicles. This configuration of maintenance facilities would provide sufficient capacity to service 250 light rail cars by the completion of ST2. The Panel was told that the ultimate build-out of the light rail system to Everett would require an additional maintenance base in the north corridor.

The Panel had several reactions to the proposal for ST2 maintenance facilities. First, the Panel cautioned that maintenance facilities are costly to construct, staff and equip. In general, regional transit systems typically try to minimize the number of maintenance facilities. It was noted that in San Diego, where there is fifty miles of light rail track, there is only one maintenance facility. Second, the capacity of 105 cars per base seems low, as compared to other transit systems with which Panel members are familiar.

The Panel suggests that before final decisions are made on the ST2 investment plan, that further work be conducted to analyze the need for the number of maintenance facilities and the location of those facilities. Clear criteria should be established to create parameters for decision-making regarding construction and operation of maintenance bases.

### **Coordination with Regional Transportation Improvement District (RTID)**

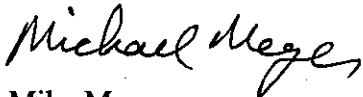
Last week the Panel also received a presentation on the level and type of coordination that is occurring between Sound Transit and the RTID. Staff discussed the coordination on planning, public outreach, project sequencing, cost estimating, revenue estimates, and proposed legislative actions.

Based on the briefing the Panel received, the level of coordination between the two programs and agencies appears to be reasonable and appropriate.

Thank you for the continued opportunity to comment on the planning for the ST2 plan. The Panel is planning to have its final meeting prior to the anticipated April 26 Sound Transit Board meeting when it is expected to make final decisions about ST2. We will also forward a final letter to you after the April Board action, summarizing the Panel's comments on the statutory requirements spelled out in RCW 81.104.100, which authorizes the creation of expert review panels.

If you have any questions regarding this letter please let us know. You can reach the Panel members via our Administrator, John Howell, at 206-223-7660, ext. 102, or [john@cedarrivergroup.com](mailto:john@cedarrivergroup.com).

Sincerely



Mike Meyer  
Chair

cc. Expert Review Panel Members  
Senator Ed Murray  
Bob Drewel, Executive Director, Puget Sound Regional Council