

SOUND TRANSIT

RESOLUTION NO. R2001-01

A RESOLUTION of the Board of the Central Puget Sound Regional Transit Authority to authorize execution of a full funding grant agreement with the United States Department of Transportation--Federal Transit Administration, and to amend the Central Link Light Rail Project budget and the *Sound Move* Ten-Year Regional Transit System Plan.

WHEREAS, a Regional Transit Authority ("Sound Transit") was created for the Pierce, King, and Snohomish County region by action of their respective county councils pursuant to RCW 81.112.030 in 1993; and

WHEREAS, in August 1996, the Sound Transit Board adopted a Ten-Year Regional Transit System Plan ("*Sound Move*" or "System Plan") to implement a regional high-capacity transit system in the Central Puget Sound Region, which System Plan included an electric light rail project ("Central Link") consisting of approximately 23-25 miles of track connecting some of the state's largest employment and education centers, highest density residential areas, and highest regional transit ridership areas, as well as regional express bus service, commuter rail service and HOV lane components; and

WHEREAS, the Central Link Light Rail Project is expected to carry approximately 120,000 riders per day by 2010, and 150,000 riders per day by 2020, and will expand transit capacity within the region's most densely populated and congested transportation corridor, provide a practical alternative to driving a car or riding a bus on increasingly congested roadways, support comprehensive land use and transportation planning, provide environmental benefits, and improve mobility for travel-disadvantaged residents in the corridor; and

WHEREAS, on November 5, 1996, fifty-seven percent of Central Puget Sound area voters residing within the Sound Transit District, and over sixty-five percent of the voters

residing in the City of Seattle, approved local taxes to fund implementation of a high capacity regional transit system in the Central Puget Sound Region; and

WHEREAS, pursuant to RCW 81.112.030(8), which provides that upon voter approval of the funding a regional transit authority shall begin implementation of the projects identified in the transit plan, the work necessary to build the commuter rail, regional bus, HOV improvements, and the Central Link light rail project began in November 1996 with the goal of completing the project within ten years, or as soon thereafter as possible, as contemplated in *Sound Move*; and

WHEREAS, in the course of performing the additional project planning, project design, engineering design, geotechnical studies, environmental analysis, and project development work necessary to implement the Central Link Project, a number of unforeseen conditions and changed circumstances have increased the time predicted to implement the Central Link Project and its estimated cost; and

WHEREAS, such unforeseen conditions and changed circumstances include: a different location and design for the light rail guideway segment and airport station in order to better serve a newly planned airport terminal; the addition of tunnel and station shell under Beacon Hill; the discovery of unstable soils beneath Portage Bay and in the vicinity of a number of the proposed underground stations; constraints based on more complete engineering and construction design information; increased right-of-way costs and construction costs; and increased environmental mitigation costs to address such issues as noise, vibration, endangered species protection, and traffic and safety impacts associated with construction in a densely populated urban environment, all as generally described in the December 2000 and January 2001 Central Link Board Briefing Books; and

WHEREAS, the Central Link budget has been examined and revised to reflect new information learned in the course of completing the project design. All project costs have

been scrutinized and updated to reflect current and significantly more accurate cost information and to ensure that the project is affordable before the project proceeds and construction is authorized. Examples of areas in which significantly more accurate information is now available include the costs associated with real estate acquisition, environmental mitigation, third-party agreements, and tunnel and subway station construction costs. The right-of way acquisition and relocation budget has been increased based on a detailed analysis of the market value of the actual properties identified for acquisition and the associated relocation costs. The environmental mitigation and associated third-party costs have been updated to reflect the actual project design impacts and the completion of negotiations with the impacted jurisdictions and stakeholders. The tunneling costs and subway station construction estimates have been updated to incorporate the new information learned from geotechnical studies (which revealed unstable soils beneath Portage Bay and in some station locations), an evaluation of price proposals from two contractors, and recently completed value-engineering studies which provided greatly increased certainty regarding the tunneling costs. The project support costs have been reviewed and updated to reflect the agency's operating and construction management costs; and

WHEREAS, it is advisable to implement a six-month work plan to complete the contracting procurement process for the construction of the tunnel segments of the Central Link Project, to complete the ongoing value-engineering studies designed to reduce project costs, and to continue to investigate methods to reduce the risks and costs associated with the tunnel crossing beneath Portage Bay and the deep tunnel stations in the University District; and

WHEREAS, a review of the construction schedule and financing plan for the Central Link Project indicates that extending the time for completion of the project until 2009 will eliminate certain expenses and risks associated with the 2006 completion date, which date

will require a compressed and increased cost construction schedule which would likely not be achievable in light of the additional time required to complete the planning, right-of-way acquisition and contract procurements necessary to complete the project in a cost-effective and environmentally sound manner; and

WHEREAS, an updated financial plan, as summarized in December 2000 and January 2001 Central Link Board Briefing Books, funds the additional cost to complete the project through the sale of excess real estate, an increase in federal funds from \$941 million to \$1.43 billion, additional bonding, reduced operating costs and capital replacement costs as a result of the longer schedule to complete Central Link; and

WHEREAS, on May 5, 2000, Sound Transit submitted a grant application to the Federal Transit Administration (“FTA”) seeking to enter into a full funding grant agreement (“FFGA”) in which the FTA would agree to enter into a multi-year grant agreement to provide partial funding for the segment of the Central Link Project to be constructed from the University District to South Forest Street in Seattle, Washington, identified for grant funding purposes as the minimum operable segment 1 (“MOS-1”); and

WHEREAS, on January 5, 2001, Sound Transit submitted to FTA a revised application for a FFGA which will provide a grant in the amount of \$500 million to fund a portion of the cost of MOS-1 of the Central Link project on the following terms and conditions:

- The baseline cost estimate established in the FFGA for MOS-1 is \$2.602 billion (YOES) which includes a project reserve of \$157 million;
- The FTA will fund a maximum amount of \$500 million in federal New Starts grant funding for MOS-1 on a agreed schedule subject to congressional appropriations;
- The FFGA establishes a proposed six-year funding schedule, subject to annual Congressional appropriations;
- Sound Transit agrees to complete the project defined in the scope of work and to begin revenue service on or before November 9, 2009; and
- Sound Transit agrees that it will fund the operating and maintenance costs of the project as well as operate and maintain its entire transit system.

WHEREAS, Sound Transit must adopt the revised budget and revised schedule for the MOS-1 segment of Central Link in order to enter into the FFGA with the FTA; and

WHEREAS, the Central Link project described in *Sound Move* can be completed and can begin carrying passengers on or before November 9, 2009, for a total project cost of \$3.6 billion (YOES) without an increase in the existing voter approved taxes; and

WHEREAS, consistent with the subarea equity principles set forth in Resolution 72, the local tax revenues, bond capacity, proceeds from the sale of surplus real estate, and increased grant funding generated by, or available to, the North and South King County subareas are sufficient to fund the increased Central Link Project cost, as described in the financing plan summarized in the December 2000 and January 2001 Central Link Board Briefing Books; and

WHEREAS, the Central Link light rail project was identified in the System Plan and is deemed to be an essential and most necessary component of the plan, the Central Link Project should be implemented as provided in Resolution 75 despite changed schedule and cost assumptions if the available funds are sufficient from the proceeds of local taxes and/or bonds and grants to fund the project; and

WHEREAS, the Board is authorized, pursuant to RCW 81.112.040(2), RCW 81.11.070, and Resolution 75 to modify the System Plan as necessary to implement the system and develop revenues therefor; and

WHEREAS, pursuant to RCW 81.112.040(2) and Resolution 80, the decision to increase the total overall Central Link budget from \$1.9 billion to \$2.6 billion (1995\$) (\$3.6 billion YOES), to extend the completion date from 2006 to 2009, and to enter into a FFGA with the FTA constitutes a major decision of the Board that requires an affirmative vote of two-thirds of the entire membership of the Board.

NOW, THEREFORE, BE IT RESOLVED by the Board of the Central Puget Sound Regional Transit Authority as follows:

Section 1. The total budget for the implementation of the Central Link Light Rail Project is hereby amended and increased from \$1.9 billion to \$2.6 billion (1995\$) (\$3.6 billion YOES) to fund the light rail component of the System Plan through completion in 2009.

Section 2. The time for completion of the Central Link Light Rail Project is extended from 2006 to 2009 to allow sufficient time to complete the project.

Section 3. The six-month work plan presented to the Board on January 11, 2001, is hereby approved, and the Executive Director is authorized to implement the work plan.

Section 4. The Board hereby adopts the \$2.6 billion (YOES) revised project budget submitted to the FTA and included within the FFGA as the agency and project budget for MOS-1.

Section 5. The date by which revenue service will be initiated on MOS-1 of the Central Link Project shall be on or before November 9, 2009.

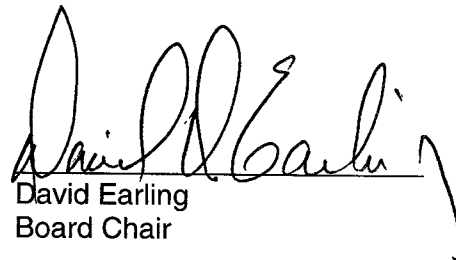
Section 6. The authority granted to the Executive Director by Resolution 26 to submit an application for and to accept a full funding grant agreement from the United States Department of Transportation ("USDOT") and/or the FTA is hereby confirmed.

Section 7. The Executive Director is authorized to execute a full funding grant agreement from the USDOT and/or FTA based on the terms contained herein, the revised budget and schedule negotiated with the FTA, the terms contained in the final revised FTA grant application submitted by Sound Transit to the FTA, and such other standard terms as are customarily included in a FFGA. The complete FFGA to be executed shall be placed on file with the Board Administrator of the Sound Transit Board. The Executive Director is authorized to take any other action deemed necessary and appropriate to enter into the FFGA, including, without limitation, that authority to confirm or reaffirm the accuracy and

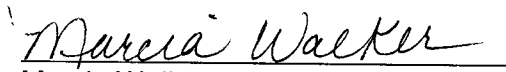
continued applicability of the information contained in the current and prior grant submittals to FTA and USDOT, to provide corrected information as appropriate, and to take all other actions as may be required to render the application accurate, complete and acceptable to FTA and USDOT. The substantive provisions of the FFGA are attached hereto as Exhibit A.

Section 8. The Executive Director is further authorized to take any other actions deemed necessary and appropriate to carry out the actions approved by this resolution.

ADOPTED by the Board of the Central Puget Sound Regional Transit Authority by not less than a 2/3 affirmative vote of the entire Board at a regular meeting thereof held on the 11th day of January, 2001.


David Earling
Board Chair

ATTEST:


Marcia Walker
Board Administrator

STAFF REPORT

SOUND TRANSIT RESOLUTION NO. R2001-01

Execution of Federal Full Funding Grant Agreement (FFGA) Amendment of Link Light Rail Schedule and Budget Adoption of Six-Month Work Plan

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Board	1/11/01	Discussion/Action	Bob White, Executive Director	(206) 398-5014

PROPOSED ACTION:

Approval of Resolution R2001-01 to (1) authorize the Executive Director to execute the Full Funding Grant Agreement ("FFGA"), (2) amend the Sound Move Ten-Year Regional Transit System Plan to provide for a revised Central Link schedule and budget, and (3) adopt a six-month project work plan.

KEY FEATURES

Highlights of Proposed Action:

- ◆ Adopts a revised project budget for the Central Link Minimum Operable Segment ("MOS-1") in the amount of \$2.602 billion (YOES) which is established in the FFGA as the baseline cost estimate.
- ◆ Adopts a revised project completion schedule for the Central Link MOS-1 of November 9, 2009, which is established in the FFGA as the revenue operations date.
- ◆ Authorizes the Executive Director to execute the FFGA with the FTA, which provides a \$500 million, six-year federal funding commitment for the Central Link MOS-1.
- ◆ Amends the Sound Move Ten-Year Regional Transit System Plan to extend the time for completion of the Central Link Light Rail Project from 2006 to 2009 and to increase the light rail budget from \$1.9 billion to \$2.6 billion (1995\$) (\$3.6 billion YOES).
- ◆ Adopts a six-month work plan that will provide for the completion of the contracting procurement process for the tunnel segments of the Central Link project, and the ongoing value-engineering studies designed to reduce project costs. The work plan will also provide for the continued investigation of methods to reduce the risks and costs associated with the tunnel crossing beneath Portage Bay and the deep tunnel stations in the University District.

DISCUSSION OF PROPOSED ACTION:

1. System Plan Amendments

Extension of Central Link Schedule from 2006 to 2009

In August 1996, the Sound Transit Board adopted a Ten-Year Regional Transit System Plan ("Sound Move" or "System Plan") to implement a regional high-capacity transit system in the Central Puget Sound Region. The System Plan includes an electric light rail project ("Link" or "Central Link") consisting of approximately 23-25 miles of track connecting some of the state's largest Employment and education centers, highest density residential areas, and highest regional transit ridership areas, as well as ST Express Bus service, commuter rail service, and HOV improvements.

In November 1996, fifty-seven percent of the voters residing within the Sound Transit District boundary, and over sixty-five percent of the voters within the City of Seattle approved local funding for the implementation of Sound Move. Work began in November 1996 with the goal to complete the project within ten years, or as soon thereafter as possible, as contemplated in the System Plan.

In the course of performing the work necessary to implement Central Link, a number of unforeseen conditions and changed circumstances have increased the time predicted to implement Link and its estimated cost. Examples of the unforeseen conditions and changed circumstances include: a different location and design for the light rail guideway segment and airport station in order to better serve a newly-planned airport terminal; the addition of tunnel and station shells under Beacon Hill; the discovery of unstable soils beneath Portage Bay and in the vicinity of a number of the proposed underground stations; constraints based on more complete engineering and construction design information; increased right-of-way costs and construction costs; and increased environmental mitigation costs to address such issues as noise, vibration, endangered species protection, and traffic and safety impacts associated with

construction in a densely-populated urban environment. Significant project changes and their impacts on the Link project are generally described in the December 2000 and January 2001 Central Link Board Briefing Books. A summary of significant project changes is attached as Exhibit A.

The estimated budget and the ten-year implementation goal contemplated by the System Plan were both developed before the project design, preliminary engineering, geotechnical studies, environmental analysis, and alignment siting project work for Central Link was substantially completed. The information learned in the course of performing this work supports the conclusion that the planned November 2006 completion date for Link is not achievable because the required work cannot reasonably be completed within that time. For example, the project design and development work necessary to negotiate the required third-party project development agreements, solicit public comment on proposed alignments, and complete the geotechnical engineering studies has taken fifteen months longer than originally planned.

An attempt to complete the Link project by 2006 would likely have a number of adverse consequences. The current schedule does not allow sufficient time to complete the remaining environmental, engineering, permitting, and right-of-way acquisition work required before construction can begin. Awarding a construction contract before completing this work would increase the likelihood that Sound Transit would be required to compensate the contractor for construction delay claims. A 2006 completion date also does not allow time to conduct a second bidding process utilizing a different contracting approach to facilitate more competition and lower bid prices in the event that an acceptable price cannot be negotiated with the tunnel contractor with whom that agency is currently negotiating. A plan to complete the project by 2006 will require the contractor to proceed on an accelerated schedule requiring additional staff and equipment. This will substantially increase the cost of construction.

A review of the construction schedule and financing plan for the Link project indicates that extending the time for completion of the project until 2009 will eliminate the expenses and risks associated with the 2006 completion date. The additional time would be sufficient to perform the work necessary to complete the necessary planning, right-of-way acquisition and contract procurements in a cost-effective, environmentally sound, and financially prudent manner.

Central Link Budget Amendment

The new information has also required revisions to the projected cost of the Central Link project. In order to develop a revised project budget, staff has scrutinized and updated each project component to ensure that the costs reflect current and accurate information. For example, now that project design has been sufficiently refined to identify the properties that will need to be acquired, the real estate budget has been substantially revised to reflect both the market value of the needed properties and the associated owner-relocation costs. Similarly, informed tunneling cost estimates have been developed based on the geotechnical studies, preliminary engineering work, and value-engineering studies performed in collaboration with the tunneling contractor who has submitted a price proposal to perform the work. The agency's internal management costs have also been updated, based on the agency's historical management and operating costs. These costs reflect the agency's actual cost of operation, including the management of multiple projects and construction contracts.

Based on the information discussed above, the Link project, as described in the System Plan, can be completed and begin carrying passengers in 2009 for a total project cost of \$3.6 billion in year of expenditure dollars without an increase in the existing level of voter-approved taxes. The additional cost to complete the project can be funded in accordance with subarea equity principles through proceeds from the sale of excess real estate, an increase in federal funds from \$941 million to \$1.43 billion, additional bonding, reduced operating costs and capital

replacement costs as a result of the extended construction schedule to complete Link, and other minor modifications to the project that could result in cost savings.

2. The Full Funding Grant Agreement

Development of the Full Funding Grant Agreement

Federal funding for the construction of new fixed guideway systems, such as Central Link, was authorized in the Transportation Equity Act for the 21st Century ("TEA-21"). These funds are Section 5309 discretionary funds, commonly known as "New Starts" funds. TEA-21 also specified the Full Funding Grant Agreement ("FFGA") as the means by which federal New Starts projects are to be funded. FFGAs are agreements used by the Federal Transit Administration ("FTA") to establish multi-year commitments of federal funding for major capital investment projects - including new rail fixed guideways and rail extensions. A FFGA provides a relatively high level of assurance that funding for the project will be included in the executive branch's annual budget request, and that congressional appropriations committees will honor the annual amounts scheduled in the FFGA.

In 1998, the FTA directed Sound Transit to develop an initial minimum operable segment ("MOS-1") to which funds from an initial FFGA could be directed. In November 1999, Sound Transit issued a final environmental impact statement for the Central Link project in compliance with the National and State Environmental Policy Acts. On November 18, 1999, the Sound Transit Board adopted a Locally Preferred Alternative (LPA) for Central Link, which would provide service from NE 47th Street in Seattle to S. 200th Street in SeaTac. The Sound Transit Board also adopted the MOS-1, consisting of a 7.2 mile light rail transit line running from NE 47th Street to South Forest Street in the City of Seattle, and an associated maintenance base.

On January 5, 2000, Sound Transit obtained a record of decision from the FTA, and on February 15, 2000, received authorization to enter final design on MOS-1. This final design authorization provided the basis for the FTA to begin developing a grant agreement for MOS-1 with Sound Transit. Between February and August 2000, Sound Transit and FTA Region X

jointly developed the information and documents necessary for the FFGA and negotiated specific aspects of the proposed agreement. The sixty-day congressional review of Sound Transit' proposed FFGA required under TEA-21 concluded on November 11, 2000. The FTA now has full authority to award the FFGA to Sound Transit.

On December 14,, 2000, staff provided the Board with a revised cost to complete schedule for the LPA of \$3.6 billion in year of expenditure dollars (YOE\$) and a new project completion date of November 2009. The Board then directed staff to prepare a revised proposed FFGA incorporating these project changes for Board consideration on January 11, 2001. Accordingly, a new grant application was submitted to the FTA and the FFGA has been modified to incorporate the following substantive revisions:

- The Baseline Cost Estimate for MOS-1 was increased to \$2.602 billion (YOE\$).
- The Revenue Operations Date was extended to November 9, 2009.

Two minor revisions were also made to the proposed schedule of federal funds incorporated as part of the FFGA.

- Sound Transit's actual FY 01 appropriation of \$50 million was incorporated -- the prior version of the schedule projected a \$35 million appropriation.
- \$5 million was shifted from FY 03 to FY 06, reducing the proposed FY 03 appropriation from \$85 to \$80 million.

The net effect of these two changes resulted in a new proposed FY 06 appropriation of \$64 million.

These revisions have required that the FTA's two independent oversight consultants -- the Project Management Oversight Consultant and the Financial Management Oversight Consultant -- update their Spot Reports for the FTA.

Key elements of the Full Funding Grant Agreement

Under the proposed FFGA, the federal government will commit to \$500 million in Section 5309 discretionary New Starts funding for the MOS-1 over six years, subject to annual

appropriations. In exchange, Sound Transit will agree to provide local funding for the project, to complete the defined scope of work for the project, and to begin revenue operations by November 9, 2009. The key elements of the proposed FFGA are as follows:

- ◆ **Baseline Cost Estimate** - The estimated cost to construct the MOS-1 segment of the project (University District to South Forest Street Maintenance Base) has been established at \$2.250 billion (YOE\$) (see January 2001 Central Link Board Briefing Book pg. 2-8). The amount includes \$171 million in allocated contingency funds associated with individual project line items (e.g., \$80.6 million for the design/build tunnel and \$15.7 million for the light rail vehicles).

However, the baseline cost estimate grant budget established for the MOS-1 Full Funding Grant Agreement is \$2.602 billion (YOE\$) (see January 2001 Central Link Board Briefing Book pg. 3-3). This larger budget amount includes the \$2.250 billion cost to construct the MOS-1 segment, plus: (a) \$157 million in project reserve (intended to address extraordinary and unforeseen events during construction), and (b) \$195 million in financing costs. The project reserve and financing costs are accounted for in Sound Transit's finance plan subarea budgets.

- ◆ **Maximum federal funding commitment** – The maximum federal financial contribution to MOS-1 from New Starts funds is \$500 million. FTA has no obligation to provide any additional discretionary financial assistance beyond the \$500 million in federal New Starts funding. As with all FFGAs, these funds are subject to appropriations by Congress and to Sound Transit's continued performance consistent with the terms and conditions of the FFGA. This maximum funding level does not apply to other potential federal funding sources that Sound Transit may seek. To date, Central Link has received appropriations for \$91 million of the \$500 million in New Starts funds.

- ◆ **Project completion** – Sound Transit agrees to complete MOS-1 without further financial assistance from the New Starts grant program. Sound Transit expects to negotiate a

second grant agreement for components of the Central Link project outside the MOS-1 with the FTA when Congress reauthorizes TEA-21 sometime in 2003 or 2004. The FFGA provides Sound Transit with flexibility to continue refining the project through the final design process.

- ◆ **Revenue Operations Date** – This provision states that Sound Transit will achieve a revenue operations date (i.e., begin service) on or before November 9, 2009.
- ◆ **Schedule of federal funds for the project** – The proposed schedule of federal funds (based on year of appropriation) incorporates Sound Transit’s actual FY 01 appropriation of \$50 million (which was projected in the draft FFGA at \$35 million) and reflects a \$5 million shift from FY 03 to FY 06:

- To date \$91 million
- FY 02 75 million
- FY 03 80 million
- FY 04 95 million
- FY 05 95 million
- FY 06 64 million
- Total \$500 million

For the vast majority of projects, federal discretionary funding has been delivered in the total amount established in the FFGA and in accordance with, or near, the appropriations funding schedule proposed in the agreement.

- ◆ **Operating and maintenance costs of the project** – Sound Transit must assure the federal government that it will operate and maintain MOS-1, and that it has the financial capacity to operate and maintain the agency’s entire transit system.

ALTERNATIVES

1. The Board has the option to not adopt the revised schedule and baseline cost estimate established in the proposed FFGA which would mean that the \$500 million FFGA grant would not be awarded to Sound Transit at this time.
2. The Board could seek to further revise the pending FFGA.
3. The Board could forego the \$500 million FFGA grant and modify the Central Link project scope and budget in some other manner as determined by the Board to best serve the stated goals of the System Plan as provided in Resolution 75.

BUDGET

Through federal fiscal year 2001, Sound Transit has received appropriations for \$91 million in New Starts appropriations. Of this, \$50 million was appropriated for federal FY 2001. The current \$1.9 billion (1995\$) Link budget is not adequate to complete the project. A revised overall Link budget of \$2.6 billion in 1995\$ (\$3.6 billion YOE) is required to complete the Link project.

CONSEQUENCES OF DELAY

Although TEA-21 does not expire until FY 2003, the amount of New Starts funds authorized by Congress is rapidly diminishing. In February 2000, the FTA identified 12 New Starts projects that it expected to execute grant agreements for by the end of federal FY 2001. Central Link MOS-1 was among the twelve projects. The FTA communicated this to Congress as part of its FY 2001 budget recommendation and advised Congress that, together, these twelve projects would expend the remaining New Starts funds authorized under TEA-21. To date, six grants have been executed, two grants are undergoing congressional review, three are in development, and Sound Transit's is pending award by the FTA.

There are a number of projects beyond the twelve discussed above that are queuing up in the New Starts pipeline for FFGAs. If Sound Transit delays execution of the FFGA, there will be significant pressure on the FTA to redirect Link's \$500 million commitment to other projects

that are ready to go. If that happens, Sound Transit would be obliged to wait until Congress reauthorizes TEA-21 in the 2003/2004 timeframe to once again seek a funding commitment for MOS-1 or an alternative proposal. The FFGA cannot be executed if the revised MOS-1 project budget and schedule are not adopted by the Board.

PUBLIC INVOLVEMENT

Sound Transit has incorporated the federal funding for the Link MOS-1 as an amendment to the Regional Transportation Improvement Program ("TIP") maintained by the Puget Sound Regional Council ("PSRC"). The amendment followed PSRC's public involvement procedures for routine TIP amendments and corrections. Those procedures include opportunity for public comment, approvals from PSRC's Transportation Policy Board and Executive Board, Washington State Department of Transportation ("WSDOT") review, State TIP approval by the Governor, and final approval by the United States Department of Transportation. Open meetings of the Sound Transit Board meetings have also afforded the public with additional opportunities to comment on the proposed schedule and budget changes and on the proposed FFGA. Sound Transit's original electronic TEAM Grant Application was posted on its website in September and its revised application posted on January 8, 2001. Sound Transit sponsored two public open houses on the Link project on January 8 and 9, 2001.

LEGAL REVIEW

DLB -1/8/01

Description	Comment
Deletion of the Convention Place Station	The Convention Place station was deleted from the project due to low ridership projections relative to the cost of an underground station and its proximity to the Westlake Station.
Alignment change going down the E-3 busway and tunnel through Beacon Hill to get to the Rainier Valley	Original alignment was to utilize the D-2 Roadway, exit the Roadway along Dearborn Avenue and pass under the I-90 overpass at Rainier Avenue. This was problematic for two reasons: 1) insufficient width in Rainier Avenue to construct light rail would have resulted in major impacts to businesses along Rainier Avenue, and 2) a future light rail extension to the east side would be made very complex considering long range planning requirements and the necessity to provide a grade separated rail interchange. Positive aspects include a new ridership market on Beacon Hill, and access to the new ballpark complex and the south downtown industrial area.
Added a Royal Brougham Station and Graham Street Station	To better serve the ballparks and Rainier Valley community. Both stations are currently deferred until additional funding can be found.
Additional right of way pricing costs and allowances for relocation	Market conditions have changed.
Additional management and public impact mitigation	The original budgets for Sound Move contain a provision for soft costs of 31% of the construction amount. Current projections place this figure at 37%. Soft costs include agency costs, design, construction management, and third party agreement costs (less costs for construction included in agreements).
Added agency costs and construction management costs	Increase budget to effectively implement the program given the level of effort expected of the agency.
Additional right of way	More right of way was required than that planned for in Sound Move for construction staging areas and for an expanded width of Martin Luther King Jr. Way outside of existing right-of-way.
Mitigation for the University of Washington	Vibration mitigation at the source using state of the art floating slab technology and electromagnetic mitigation to control magnetic interference on sensitive University research facilities. Mitigation for impacts to the proposed Law School and Gould Hall, and vibration mitigation at the receiver for critical research equipment at proposed life sciences buildings. Compensation staff time associated with the project.
Mitigation for Downtown Seattle	Provide for street and traffic control improvements to increase speed and reliability for surface buses during and after tunnel

	conversion to rail to mitigate additional bus volumes on the surface streets.
Maintenance base located in Duwamish with an elevated alignment along Forest Street instead of at-grade on Lander Street	Proposed maintenance base location at Boeing Access Road was moved to south of downtown to mitigate concerns of the business community in the South Rainier Valley area. Sound Transit worked with the South Downtown industrial community to refine the issues surrounding the siting of the maintenance base and the east/west alignment.
Urban Design Improvements for Rainier Valley and Tukwila	Several urban design enhancements were incorporated into the project to help provide efficient pedestrian connections and mitigate impacts. These included urban design elements along Henderson St. and Edmonds St. in the Rainier Valley to provide improved connections from Martin Luther King Jr. Way South reaching out toward Rainier Ave. Also included were enhancements in the Columbia City vicinity, Cheasty Boulevard area and in the Foster Commons area at 144th Street in Tukwila.
Mitigation in the Rainier Valley	Additional mitigation in the Rainier Valley included a residential noise insulation program, enhanced traffic improvements and pedestrian crossings, and provisions for a parallel bicycle facility along Martin Luther King Jr. Way.
Provide for additional parking at 154th Street Station and defer parking at the Boeing Access Road Station	Parking demand studies made this a prudent tradeoff. Both in the City of Tukwila
Provide for an aerial alignment in the SeaTac segment	At the start of the light rail planning process in 1997, the long-range planning of airport facilities for a new north end airport terminal was advancing. The Port of Seattle is now very serious about the new terminal, a new intermodal center, a new rental car facility and a new automated guideway transit system that would connect the existing terminal with these three new facilities. It was prudent for Sound Transit to integrate the light rail station with this new terminal and take advantage of the automated guideway transit system. This would provide an excellent interface between the airport Link station and the new terminal with connections to existing terminals.
Cost associated with the agreement with Metro for transfer of the downtown bus tunnel and for mitigation of existing facilities	Mitigation for increased operating costs that will be experienced by Metro and construction impacts to existing Metro facilities. Capital costs for Convention Place station modifications to allow Sound Transit the use of such facility as a construction staging area. Mitigation for loss of parking at Ryerson base (they were planning on using the land where the Royal Brougham station now sits). Widened E-3 busway to allow for the bus passing associated with deadhead buses to and from Ryerson base to mitigate operating delays.
New storm water management ordinances	As required by recent legislation.

Other environmental mitigation	Provisions for archaeological monitoring during construction, hide and ride mitigation, wetlands monitoring and mitigation, stream/river mitigation, hazardous materials remediation, system-wide vibration and settlement monitoring.
Bus, pedestrian and bicycle improvements around light rail stations	Throughout the entire alignment, improvements were made to the bus, pedestrian and bicycle facilities at the light rail stations.
Construction costs	Increases to restore contingencies and project reserve optimistically lowered to pay for added costs associated with project modifications. Also increases in unit prices to account for added risk associated with tunneling previously underestimated.