

HISTORY OF TUNNEL COST ESTIMATES

<u>Date</u>	<u>What Happened</u>
1993-1994	As part of Regional Transit Project, estimated costs for tunnel between CPS and UW were prepared, based upon alignment concepts and no geotech borings
1995-1996	RTA staff, preparing a package for second RTA vote, escalated the 1993-1994 costs to 1995 \$, and made some adjustments based upon cost-per-mile comparisons with other cities. These cost estimates were used in the financial plan for the Sound Move vote.
1998-1999	<p>As part of preliminary engineering, initial geotech borings were taken, including some under Portage Bay. These resulted in some changes in alignment, including the need to build deeper tunnel and stations under Portage Bay and in the University District at higher cost.</p> <p>Further breakdowns of tunnel cost estimates, based upon conceptual designs, were completed for each of several station/alignment options being considered in the draft and final environmental documents. These allowed public and Board to make tradeoffs among options.</p>
September 1999	In preparation for LPA decision coming in November, and in an effort to lay the groundwork for getting to Northgate, an LPA was prepared with the intent of keeping cost as low as possible. Cost estimates were scrubbed, contingencies reduced, and the project reserve was eliminated with the expectation that the project reserve could be “earned” by achieving savings in design.
November 1999	Board adopted the LPA.
December 1999	First baseline cost estimate for the LPA was produced, based upon conceptual design used to establish estimates for the FEIS, and broken down by proposed construction and procurement contract packages. Estimate for the LB 235 tunnel contract was \$509 million, plus \$50 million contingency, in YOE \$.
January 2000	Requests for Proposals for LB 235 Design-Build Tunnel Contract were sent out.
February 2000	Baseline cost estimate for the MOS was included in the FFGA application to the federal government. It showed the cost of the

LB 235 tunnel contract at the same \$509 million, plus \$50 million contingency (in YOE \$).

- February 2000 Geotechnical baseline report completed. Interprets how the ground will behave and established a baseline for estimating costs.
- February 2000 Construction noise variance application and Shoreline/ESA permit applications for Portage Bay were first submitted to City of Seattle and resource agencies for processing.
- March 2000 Board approved MOA with King County for the transfer of the Downtown Seattle Transit Tunnel.
- May 2000 Agreement in principle for an MOA with the University of Washington was reached between the ST Board and the UW Board of Regents. (Agreement was not actually signed until July).
- May 2000 Technical proposals (no costs) were received from design-build proposers for LB 235 tunnel contract.
- June 2000 Sound Transit staff performed a new, more detailed cost estimate for the tunnel contract. Costs were increased based upon final geotech baseline report, and final ground rules about how the contractor would be expected to conduct their work as a result of the UW agreement, noise variance parameters, Shoreline/Endangered Species Act permit requirements, parking requirements, community and city impact mitigations and other risk factors.
- Work in progress on the engineer's estimate reviewed by the independent review panel. Estimate not yet completed.
- July 17, 2000 Updated engineer's estimate for LB 235 tunnel contract was completed and reviewed internally. Staff began looking at means to save costs from this estimate without changing the basic construction package, by reducing risks, relaxing schedules, providing nearby parking for contractor employees, etc. New estimate totaled \$669 million (YOES).
- July 2000 Preliminary list of possible cost saving items was produced with a total of up to \$87 million.
- July 28, 2000 Cost proposals from design-build proposers were received. Both were substantially above the engineer's estimate. MTC came in at \$796 million (later adjusted upward to \$844 m to enable a more

apples-to-apples comparison with the other proposer). Puget Link came in at \$890 million (adjusted down to \$875 m).

- August 2000 The proposers were individually notified by ST management, and told that while the review teams were separately reviewing their proposals for the purpose of selecting one for negotiation, they needed to bring costs down. Each proposer was asked to prepare comments and suggestions on what factors could bring the costs down, and to come to meet with ST the following week. They agreed. Together with staff and design consultants suggestions, it appeared possible to get the contractor's pricing down by \$150 to \$200 million.
- July 31 to Aug. 4 Intensive work sessions were held by ST design staff and consultants to evaluate possible cost saving items through design changes suggested by design-build contractors, as well as other ideas that could produce savings.
- August 2000 Modern Transit Constructors (MTC) was selected for negotiation. They were then asked about their willingness to work on design alternatives, including the ones they had suggested themselves to bring the cost down, to provide the basis for a negotiated agreement. They indicated a willingness to do so, if part of their design costs could be met. (Subsequently, a contract for that purpose was approved by the Board). MTC was given a target of December 8, 2000 to have a final price for the LB235 tunnel contract ready for Board and public review, and approval in January.
- August 24, 2000 A kickoff meeting with key MTC principals and engineers was held, and a goal of reaching an affordable contract was established. It was agreed that MTC engineers would be co-located with Link staff and consultants to facilitate work on design options.
- Sept-Oct, 2000 MTC and ST design team worked on design alternatives to reduce costs; and established a framework for negotiations on price.
- November 2, 2000 Because MTC was not providing details of costs, our outside panel of tunneling experts suggested we request Modern to provide us their best estimate now, rather than waiting until December 4.
- November 6, 2000 Sound Transit asked MTC for a preliminary estimate of the tunnel contract cost in one week, to determine whether we were going to reach the affordable range.

November 13, 2000 MTC provided Sound Transit with a new estimate of \$728 m for the LB 235 tunnel contract, incorporating the design changes they had developed to save costs.