

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2002-25

Contract amendment with LTK Engineering Services for systems engineering final design for Central Link Initial Segment, conceptual and preliminary systems engineering design for North Link alternatives study and systems construction management and design support services during construction and startup for Tacoma Link

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	3/7/02	Discussion/Possible Action to Recommend Board Approval Action	Ahmad Fazel, Link Director	206-398-5389
Board	3/14/02		Winston Simmonds, Link Systems Engineering Mgr.	206-689-3326

OBJECTIVE OF ACTION

Amend contract with LTK Engineering Services for systems preliminary and final engineering services for Central Link and construction services and startup for Tacoma Link.

ACTION

- Authorize the Executive Director to execute a contract amendment with LTK Engineering Services for systems engineering final design for Central Link Initial Segment, conceptual and preliminary systems engineering design for North Link alternatives, and systems construction management, design support services during construction and startup for Tacoma Link through December 31, 2004, in the amount of \$2,281,884 plus a 10% contingency of \$228,188 for a total of \$2,510,072 and for a new total authorized contract amount not to exceed \$32,305,854.

KEY FEATURES

- Establishes a contract amendment with LTK Engineering Services for systems engineering for: (1) final design for Central Link Initial Segment; (2) conceptual and preliminary design for the North Link alternatives analysis; (3) systems construction management and design support services during construction, and (4) startup for Tacoma Link operations through December 31, 2004.
- Although each Link segment is at a different phase of project development, systems engineering and design (unlike civil engineering) must continue to be planned system wide to assure consistent and reliable operations when the entire line is operational.
- Authorizes contract amendment in the amount of \$2,281,884 plus a 10% contingency of \$228,188 for a total of \$2,510,072 and for a new total authorized contract amount not to exceed \$32,305,854.
- The DBE and M/WBE participation goal in the current LTK contract is 20.59%, which is projected to increase to 22.7% at completion of the revised contract. This includes 1 firm registered as M/W/DBE, 7 firms as M/DBE, and 4 firms as W/MBE.
- This amendment requires FTA approval to waive the 5-year contract limit. ST has submitted a waiver and a decision is pending.

BUDGET

On December 13, 2001, the Board adopted the 2002 agency budget.

Line 1 (See table below)

The total budget for the segment from CPS to Northgate (as identified in Amendment 9) is \$110 million, which includes the \$21 million for future work, as well as an estimate of expenditures for work already completed in this area. Within the \$21 million budget for the two-year work plan, \$1,030,000 was identified for future systems design work as contemplated in this motion. Previous activity by LTK in this segment is budgeted for under separate line items within the project and is not included within this task budget. With the execution of this contract amendment, there is sufficient budget remaining to complete the project.

Line 2 (See table below)

The total budget for the Initial Segment from CPS to S 154th (as identified in Amendment 9) is \$2.07 billion. Within that budget, the activity contemplated within this motion is identified within the Final Design phase. This activity was included within the cost estimate and there are sufficient funds identified for work identified in this motion. The budget for this activity is \$18,960,000 including previously completed work. There is a remaining budget surplus of \$850,443 for this activity. With the execution of this contract amendment, there is sufficient budget remaining to complete the project.

Line 3 (See table below)

The current Board-adopted capital budget for Tacoma Link is \$80,416,000. Activity contemplated within this line is for construction management. Within the total Tacoma Link budget, \$2,139,000 was budgeted for preliminary engineering, final design and systems construction management by LTK. If this motion is approved, total commitments will be \$2,135,124. This leaves a budget surplus of \$3,876. With the execution of this contract amendment, there is sufficient budget remaining to complete the project.

Line 4 (See table below)

The current Board-adopted capital budget for Tacoma Link is \$80,416,000. Activity contemplated within this line reflects testing and start-up support. Within the total Tacoma Link budget, \$760,000 was budgeted for testing & startup. There is a remaining budget surplus of \$501,036 for this activity. With the execution of this contract amendment, there is sufficient budget remaining to complete the project.

	Column A	Column B	Column C	Column D	Column E
	Total Project Budget	Budget for this Task (B)	Obligated to Date (C)	Total Amount Requested (D)	Shortfall* or Surplus (B-(C+D))
<u>CPS to Northgate</u>	\$ 110,000,000	\$ 1,030,000	\$ 0	\$ 846,499	\$ 183,501
<u>Initial Segment</u>	\$ 2,070,000,000	\$ 18,960,000	\$ 17,339,000	\$ 770,557	\$ 850,443
<u>Tacoma Link</u> PE, FD & CM	\$ 80,416,000	\$ 2,139,000	\$ 1,501,072	\$ 634,052	\$ 3,876
<u>Tacoma Link</u> Testing & Startup	\$ 80,416,000	\$ 760,000	\$ 0	\$ 258,964	\$ 501,036
				\$ 2,510,072	

FINANCIAL IMPACTS

Impact on Current Year Budget: This action is included within the 2002 Adopted Budget and will not have any additional impact on the current year budget beyond that contemplated within the 2002 Adopted Budget

Impact on Sound Move Budget: The total proposed budget for the Link projects is higher than the original Sound Move budget. This request will not further increase the Sound Move budget variance.

Impact on Cost-to-Complete: The amount requested is included within the cost at completion for each of the projects.

Impact on subarea(s) budget(s): This action will not further impact the North King County, South King County nor the Pierce County subarea budgets beyond that contemplated within the 2002 adopted budget.

HISTORY OF PROJECT

On December 15, 1997, Sound Transit advertised and issued a Request for Proposals (RFP) for Systems Engineering Preliminary Engineering Design Services for Phase I of the Central Link light rail project. The RFP provided notice that this contract may be amended in the future to include final design. The selection committee recommended that Sound Transit pursue negotiations with LTK Engineering Services and by Resolution No. R98-17, the Board approved award of the contract to LTK in the amount of \$5,856,500 with an additional \$1,171,300 authorized for contingency reserve (to cover changes in the work) and \$200,000 for limited tasks.

On March 9, 2000, the Sound Transit Board authorized the Executive Director to execute a contract amendment with LTK Engineering Services for systems engineering final design for Central and Tacoma Link, and systems construction management, design support during construction and start-up for Tacoma Link Light Rail Project in the amount of \$20,516,347 with a 10 percent contingency of \$2,051,635 for a total contract amount not to exceed \$22,567,982.

During 2001, Sound Transit re-examined the Central Link project and on September 27, 2001 by Motion No. M2001-103, the Sound Transit Board identified a 14-mile preferred initial segment to be constructed and operated for the Central Link light rail project from Convention Place in downtown Seattle to South 154th Street. The Board made the final decision on selecting the initial segment on November 29, 2001, by Resolution No. R2001-16. Also, on September 27, 2001, by Motion No. M2001-104, the Sound Transit Board authorized staff to complete an 18 to 24 month supplemental EIS and design effort to analyze alternative routes to the north of the initial segment interim terminus at Convention Place.

This proposed action is to revise the contract scope of work, and increase the contract amount for the systems engineering design services contract with LTK Engineering Services in the amount of \$2,281,884, with a 10% contract contingency of \$228,188 for a total contract amended amount not to exceed \$2,510,072.

The revised scope of work covers systems engineering services for the following work tasks:

Task 1 - Final Design of Central Link Initial Segment

- P801 Light Rail Vehicles
- C802 Train Control (signal) System
- C803 Communications System
- C804 SCADA and Operations Control Center
- C805 Tunnel Radio and Distribution System
- C806 KCRS Interface & Portable Radios
- C807 Traction Power System with OCS
- C809 Fare Collection System
- C810 Operations and Maintenance Facility
- C811 Maintenance Equipment, Shop
- P812 Non-Revenue Vehicles
- P813 Operational Graphics
- P814 Management Information System
- Line Section Support for Civil and Architectural Final Designers
- Technical Support for Operations Planning

Task 2 - Conceptual and Preliminary Engineering North Link Alternatives

- Conceptual systems design with Draft EIS and Preliminary Engineering with final EIS.
- Includes locating of systems rooms at buildings or stations, traction power substations, interlockings, and operational simulation analyses.

Task 3 - Construction Management and Services during Construction for Tacoma Link

- Construction Management for P901, Light Rail vehicles
- Construction Management for C925, Systems Installation
- Services during construction for: C910, Line Section; P915, Traction Power Substations; and P920, Operations and Maintenance Facility

Task 4 – Operations Startup Support for Tacoma Link

- Preparation of the Rail Activation Plan, Systems Integration Test Plan and Operations Plan for Tacoma Link

**Prior Board or Committee Actions
and Relevant Board Policies**

Motion or Resolution Number	Summary of Action	Date of Action
Resolution R2001-16	Selected the initial segment of the Central Link Light Rail Project to be constructed and operated by 2009.	11/29/01
Motion M2001-103	Identified the preferred initial segment to be constructed and operated for Central Link Light Rail.	09/27/01
Motion M2001-104	Directed the Executive Director to evaluate Central Link Light Rail routes and station alternatives between Convention place and Northgate.	09/27/01
Motion M2000-20	Authorized the Executive Director to execute a contract amendment with LTK Engineering Services for systems engineering final design for Central and Tacoma Link, and systems construction management and services during construction and start-up for Tacoma Link Light Rail Project in the amount of \$20,516,347 with a 10 percent contingency of \$2,051,635 for a total amount not to exceed \$22,567,982.	03/09/00
Motion M98-17	Authorized contract with LTK Engineering to provide systems engineering design work for Link not to exceed \$5,856,500 plus \$1,171,300 contingency reserve.	04/23/98

CONSEQUENCES OF DELAY

- A delay in approval of this contract amendment would result in a delay to the systems final design of the Central Link light rail initial segment, conceptual and preliminary engineering work for North Link alternatives study, and construction management and startup services for Tacoma Link when the existing funds are expended. The design of these elements are system-wide, and it is critical that this work proceed in a coordinated manner with the civil engineering and architectural design work to meet the Initial Segment final design schedule.

REGIONAL PARTNERSHIP AND COOPERATION

- N/A

PUBLIC INVOLVEMENT

- N/A

LEGAL REVIEW

JDW 2/21/02

SOUND TRANSIT

MOTION NO. M2002-25

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the Executive Director to execute a contract amendment with LTK Engineering Services for systems engineering final design for Central Link Initial Segment, conceptual and preliminary systems engineering design for North Link alternatives, and systems construction management, design support services during construction and startup for Tacoma Link through December 31, 2004, in the amount of \$2,281,884 plus a 10% contingency of \$228,188 for a total of \$2,510,072 and for a new total authorized contract amount not to exceed \$32,305,854.

Background:

On December 15, 1997, Sound Transit advertised and issued a Request for Proposals (RFP) for Systems Engineering Preliminary Engineering Design Services for Phase I of the Central Link light rail project. The RFP provided notice that this contract may be amended in the future to include final design. The selection committee recommended that Sound Transit pursue negotiations with LTK Engineering Services and by Resolution No. R98-17, the Board approved award of the contract to LTK in the amount of \$5,856,500 with an additional \$1,171,300 authorized for contingency reserve (to cover changes in the work) and \$200,000 for limited tasks.

On March 9, 2000, the Sound Transit Board authorized the Executive Director to execute a contract amendment with LTK Engineering Services for systems engineering final design for Central and Tacoma Link, and systems construction management, design support during construction and start-up for Tacoma Link Light Rail Project in the amount of \$20,516,347 with a 10 percent contingency of \$2,051,635 for a total contract amount not to exceed \$22,567,982.

During 2001, Sound Transit re-examined the Central Link project and on September 27, 2001 by Motion No. M2001-103, the Sound Transit Board identified a 14-mile preferred initial segment to be constructed and operated for the Central Link light rail project from Convention Place in downtown Seattle to South 154th Street. The Board made the final decision on selecting the initial segment on November 29, 2001, by Resolution No. R2001-16. Also, on September 27, 2001, by Motion No. M2001-104, the Sound Transit Board authorized staff to complete an 18 to 24 month supplemental EIS and design effort to analyze alternative routes to the north of the initial segment interim terminus at Convention Place.

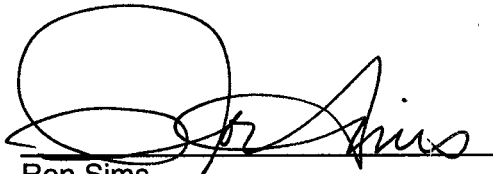
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The revised scope of work includes final design for Central Link initial segment, conceptual and preliminary systems engineering design for North Link alternatives, systems construction management and design support services during construction, and startup for Tacoma Link.

Motion:

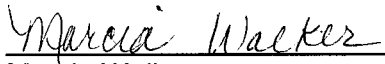
It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the Executive Director is authorized to execute a contract amendment with LTK Engineering Services for systems engineering final design for Central Link Initial Segment, conceptual and preliminary systems engineering design for North Link alternatives, systems construction management, design support services during construction and startup for Tacoma Link through December 31, 2004, in the amount of \$2,281,884 plus a 10% contingency of \$228,188 for a total of \$2,510,072 and for a new total authorized contract amount not to exceed \$32,305,854.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on March 14, 2002.



Ron Sims
Board Chair

ATTEST:



Marcia Walker
Board Administrator