

**SOUND TRANSIT  
STAFF REPORT**

**MOTION NO. M2007-51**

**University Link Systems Engineering Final Design Consultant Services**

<b>Meeting:</b>	<b>Date:</b>	<b>Type of Action:</b>	<b>Staff Contact:</b>	<b>Phone:</b>
Finance Committee	5/3/07	Discussion/Possible Action to Recommend Board Approval Action	Ahmad Fazel, Link Director	(206) 398-5389
Board	5/10/07		John Harrison, Deputy Executive Director	(206) 398-5309
			<b>Steve Procter,</b> <b>Systems Engineering Manager</b>	(206) 370-5509

<b>Contract/Agreement Type:</b>	<b>✓</b>	<b>Requested Action:</b>	<b>✓</b>
Competitive Procurement	✓	Execute New Contract/Agreement	✓
Sole Source		Amend Existing Contract/Agreement	
Agreement with Other Jurisdiction(s)		Budget Amendment	
Real Estate		Property Acquisition	

**PROJECT NAME**

University Link – Pine Street Stub Tunnel (PSST) to University of Washington (UW) Station

**PROPOSED ACTION**

Authorizes the chief executive officer to execute a contract with LTK Engineering Services, LLC to provide systems engineering final design services for the University Link project in the amount of \$6,596,891 with a 10% contingency of \$659,689, for a total authorized contract amount not to exceed \$7,256,580.

**KEY FEATURES of PROPOSED ACTION**

- LTK Engineering Services, LLC (LTK) will provide systems engineering final design services for University Link. The LTK team includes approximately 10 sub-consultants and includes systems design, integration of systems elements with civil design, special Electro-Magnetic Interference (EMI) mitigation required by the UW, and other capabilities.
- The proposed LTK contract scope of work includes systems design support, systems final design, and bid support services. The systems design support effort primarily provides systems input into the final civil design.
- The final design work will be divided into two phases:
  - Phase 1 will bring the University Link project systems design from 30% to 90% design completion. Phase 2 will bring the systems design from 90% to 100% design completion, and includes systems contract bid support.

- Phase 1 includes about one year of systems design support of the civil design effort from May 2007 through April 2008. Once civil design is 60% to 90% complete, final systems design work will begin May 2008 and is anticipated to be completed by March 2009.
- The consultant will demobilize for 2 ½ years between phases 1 and 2.
- Phase 2 of the systems final design will commence September 2011. It is included in the contract scope of work but will not be funded at this time. Upon future Board authorization, a work order will be issued for these services by Sound Transit approximately one year prior to the scheduled contract award date of the first system construction contract estimated to be in the fall of 2012.
- Phase 2 was negotiated at an amount not to exceed \$2,289,570 plus 10% contingency of \$228,957 for a total amount not to exceed \$2,518,527. This amount is not included in the total authorized amount of this action and will require future Board action to authorize these additional services.
- The proposed contract with LTK includes options that allow Sound Transit to negotiate future work scope for providing design support during construction of University Link, final systems design services for the potential North Link extension to Northgate, and construction management services.

### **BUDGET IMPACT SUMMARY**

**Current Project Phase:** Final Design  
**Projected Completion Date:** 2016

<b>Action Outside of Adopted Budget:</b>	<b>✓</b>	<b>Comments on Checked Items</b>
This Project		
This Phase		
This Task	✓	Proposed action requires funding from Final Design phase unallocated contingency
Budget Amendment Required		

<b>Key Financial Indicators:</b>	<b>✓</b>	<b>Comments on Checked Items</b>
Contingency Funds Required		
Funding required from other parties (other than what is in financial plan)		

Not checked = action is assumed in current Board-adopted budget. No budget action or adjustment to financial plan required.

### **BUDGET and FINANCIAL PLAN DISCUSSION**

The proposed action would authorize execution of a contract with LTK to provide systems engineering final design services for the University Link project in the amount of \$6,596,891 with a 10% contract contingency of \$659,689, for a total authorized contract amount not to exceed \$7,256,580.

The Adopted 2007 Budget for University Link is \$1.514 billion. Within that amount, \$7,049,000 has been set aside for systems engineering final design services within the final design phase. Approval of the proposed action would result in a shortfall of \$207,580 for this budget line item, which would be funded from final design phase unallocated contingency. Should the proposed

action be approved, the \$4,054,000 unallocated contingency in the final design phase would be reduced by this amount, leaving a remaining budget balance of \$3,846,420.

The proposed action is consistent with the current adopted budget and is affordable within the agency's long-term financial plan and sub-area financial capacity. The action will have no new revenue impact on Sound Transit.

## **BUDGET TABLE**

**Action Item:** LTK Engineering Services, LLC (provide systems engineering final design services for the University Link - PSST to UW Station project)

**(Year of Expenditure \$000)**

<b>University Link</b>		<b>Adopted 2007 Budget (A)</b>	<b>Committed To Date (B)</b>	<b>This Action (C)</b>	<b>Total Committed &amp; Action (D)</b>	<b>Uncommitted (Shortfall) (E)</b>
1	Agency Administration	87,532	8,771		8,771	78,761
2	Preliminary Engineering	24,476	24,872		24,872	(396)
3	Final Design	74,635	50,345	7,257	57,601	17,034
4	Right of Way	135,261	41,017		41,017	94,244
5	Construction	972,140	-		-	972,140
6	Construction Services	57,911	-		-	57,911
7	Third Party Agreements	19,733	2,957		2,957	16,776
8	Vehicles	142,320	-		-	142,320
9	Contingency	-	-		-	-
10	<b>Total Current Budget</b>	<b>1,514,008</b>	<b>127,963</b>	<b>7,257</b>	<b>135,219</b>	<b>1,378,789</b>
<b>Final Design Phase</b>						
11	Systems Final Design	7,049	-	7,257	7,257	(208)
12	Other Final Design	63,532	50,345		50,345	13,187
13	FD Unallocated Contingency	4,054	-		-	4,054
14	<b>Total Phase</b>	<b>74,635</b>	<b>50,345</b>	<b>7,257</b>	<b>57,601</b>	<b>17,034</b>
<b>Contract Amount</b>						
		<b>Board Approvals to Date (F)</b>	<b>Current Approved Contract Value (G)</b>	<b>Proposed Action (H)</b>	<b>Proposed Total for Board Approval (I)</b>	<b>Proposed Contract Value (J)</b>
15	Contract Amount	-	-	6,597	6,597	6,597
16	Contingency	-	-	660	660	660
17	<b>Total</b>	-	-	<b>7,257</b>	<b>7,257</b>	<b>7,257</b>
18	Percent Contingency	0%	0%	10%	10%	10%
<b>Budget Shortfall</b>						
	<b>Task Level</b>	<b>\$ (K)</b>	<b>Potential Resources (L)</b>	<b>Source (M)</b>		
19	Systems Final Design	208	4,054	Final Design phase unallocated contingency		

(B) COMMITTED TO DATE amounts are from Agency WBS Report as of February 2007 + approved and pending board actions not recorded as of 2/28/07, or submitted after that date.

## **SMALL BUSINESS PARTICIPATION**

### **Prime Consultant/Contractor**

LTK is the prime consultant for this contract. In its proposal, LTK committed to utilize M/W/DBE and small businesses for a minimum of 18% of all work over the life of the contract. LTK is committed to achieving its goal with this proposed contract.

### Utilization Breakdown Table

<b>Subconsultant</b>	<b>Business Type</b>	<b>% of Work</b>	<b>Dollar Value</b>
Bolima	SB/DBE/ MBE	4%	\$270,157
Eskilsson Architecture	SB/DBE/ MBE	2%	\$162,205
Hatfield & Dawson	Small Business	2%	\$120,365
Holmstrom	Small Business	3%	\$191,115
Pacific Communications Consultants	Small Business	1%	\$79,492
TriUnity Engineering	SB/DBE	3%	\$219,897
Other TBD		2%	\$144,000
<b>Total</b>		<b>18%</b>	

### EEO Commitment

In its proposal, LTK provided an EEO profile for the contract of 5% People of Color, 22% Women, and .04% Persons with Disabilities.

### **PROJECT DESCRIPTION and BACKGROUND for PROPOSED ACTION**

The North Link Final SEIS was published on April 7, 2006, which informed the Board's final decision on the North Link project to be built, including route, station locations, project phasing, and financing. On April 27, 2006, the Sound Transit Board adopted Resolution No. R2006-07, which selected the University Link project to be advanced to final design and property acquisition, followed by construction and operation; in addition to approval of a revised lifetime project budget of \$1.514 billion. The University Link project is a 3.15-mile extension of the Initial Segment of light rail in twin-bored tunnels with two cut-and-cover stations connecting downtown Seattle with Capitol Hill and the University of Washington (UW) campus.

Preliminary Engineering for University Link was completed in spring 2006. Sound Transit transmitted a request for final design approval to FTA in May 2006. The Record of Decision (ROD) for North Link was issued by FTA in June 2006, completing the environmental review process. Permission from the FTA to enter into final design was received on December 11, 2006.

LTK will provide final design services for the systems portion of University Link. Other major firms on the LTK design team include Hatch Mott MacDonald and Parsons Transportation. Overall, the LTK team includes approximately 10 sub-consultants and includes integrated systems engineering, project integration, cost estimating, scheduling, QA/QC, project control, and other capabilities.

The proposed LTK contract scope of work is divided into two phases, civil design support and final design. Civil design support activities would begin shortly after the contract is executed and the consultant team mobilizes via a limited Notice to Proceed. The contract amount for civil design support activities is approximately \$6.59M. Final design work will be included in the contract scope of work but will not be funded at this time. Final design work would begin 13 months prior to the scheduled contract award date of the first system construction contract.

The first University Link construction contracts are scheduled to be underway by late 2008 and will include advance utility relocation and site demolition work. Station excavation and construction activities would begin in 2009. University Link service would start in 2016.

## Prior Board/Committee Actions on this Project

Motion/Resolution Number and Date	Summary of Action
R2006-07 4/27/06	(1) Selected the final route, profile, and station locations for the North Link Light Rail Project; (2) selected the University Link portion of North Link to be constructed and operated as part of the Central Link Light Rail Project, including authorizing the steps necessary to complete final design and implementation of the University Link Project including securing a federal Full Funding Grant Agreement; (3) increased the University Link lifetime Adopted 2006 Budget and revising the annual Adopted 2006 Budget; and (4) for planning purposes reduced the minimum debt service coverage for the North King County subarea to 1.15x for the University Link Finance Plan.
R2005-06 1/27/05	Identified the 12 <sup>th</sup> Avenue alternative as the preferred Roosevelt route and station location for the North Link Light Rail Project.
M2003-33 3/13/03	Directed staff to complete additional work on North Link route alternatives in order to provide the Board with more comprehensive information for its North Link route decision-making process.
M2002-69 5/23/02	Authorized staff to modify the set of route alternatives in the North Link Draft Supplemental Environmental Impact Statement.
M2002-13 2/24/02	Selected route alternatives for inclusion and study in the North Link Draft Supplemental Environmental Impact Statement excluding less promising route alternatives for further study.
M2001-104 9/27/01	Directed staff to reevaluate route alternatives from Convention Place Station to Northgate and approved the North Link work program and budget needed to complete this effort.

## **CONSEQUENCES of DELAY**

Civil final design is underway. Delay in awarding this contract would cause problems in advancing the civil design as well as integrating the systems design with the civil design.

## **PUBLIC INVOLVEMENT**

Sound Transit staff has held a number of station design workshops, project open houses, and other meetings involving property owners, neighborhood and business groups, and other interested parties throughout the North Link study area as part of the environmental and Preliminary Engineering work completed to date. A 45+ day comment period on the 2005 Draft SEIS began in October 2005 and two public open houses/hearings were held in November 2005.

Sound Transit will continue an active community outreach program as part of University Link final design work efforts. The LTK team will provide design resources to assist Sound Transit in future outreach activities.

## **ENVIRONMENTAL COMPLIANCE**

JI 4/25/07

## **LEGAL REVIEW**

JW 4/26/07

## **SOUND TRANSIT**

### **MOTION NO. M2007-51**

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract with LTK Engineering Services, LLC to provide systems engineering final design services for the University Link project in the amount of \$6,596,891 with a 10% contingency of \$659,689, for a total authorized contract amount not to exceed \$7,256,580.

#### **Background:**

The North Link Final SEIS was published on April 7, 2006, which informed the Board's final decision on the North Link project to be built, including route, station locations, project phasing, and financing. On April 27, 2006, the Sound Transit Board adopted Resolution No. R2006-07, which selected the University Link project to be advanced to final design and property acquisition, followed by construction and operation; in addition to approval of a revised lifetime project budget of \$1.514 billion. The University Link project is a 3.15-mile extension of the Initial Segment of light rail in twin-bored tunnels with two cut-and-cover stations connecting downtown Seattle with Capitol Hill and the University of Washington (UW) campus.

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**Motion:**

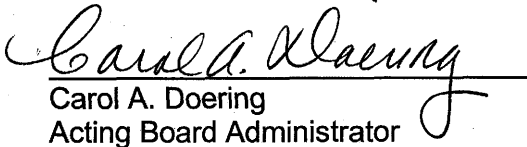
It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a contract with LTK Engineering Services, LLC to provide systems engineering final design services for the University Link project in the amount of \$6,596,891 with a 10% contingency of \$659,689, for a total authorized contract amount not to exceed \$7,256,580.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on May 10, 2007.



Mark Olson  
Board Vice-Chair

**ATTEST:**



Carol A. Doering  
Acting Board Administrator