

**SOUND TRANSIT  
STAFF REPORT**

**MOTION NO. M2009-90**

**Contract Award for University Link Construction  
Capitol Hill Station Excavation and Tunnel Boring to Pine Street Stub Tunnel**

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	10/15/09	Discussion/Possible Action to Recommend Board Approval	Ahmad Fazel, Link Executive Director	(206) 398-5389
Board	10/22/09	Action	Joe Gildner, U-Link Project Director <b>Ben Emam, U-Link Construction Manager</b>	(206) 689-3350 (206) 398-5394

Contract/Agreement Type:	✓	Requested Action:	✓
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 JCM U-Link Joint Venture to construct twin-bored tunnels and associated facilities between Capitol Hill Station and Pine Street Stub Tunnel for University Link in the amount of \$153,556,000, with a 10% contingency of \$15,355,600, for a total authorized contract amount not to exceed \$168,911,600.

**KEY FEATURES of PROPOSED ACTION**

- This contract is for Capitol Hill station excavation and tunnel boring to the Pine Street Stub Tunnel. The scope of work includes utility work, excavating the Capitol Hill Station box, constructing twin bore tunnels (3800 lineal feet) with a tunnel boring machine, and constructing five cross passages connecting the twin tunnels.
- The U230-Tunnels, Capitol Hill Station to Pine Street Stub Tunnel contractor must complete all work within 1,154 days (3 years, 2 months) after Notice to Proceed. There are three intermediate milestones, one for providing space for the first tunnel Contractor within the Capitol Hill Station box for the arrival, dismantling and removal of the tunnel boring machine (TBM) from the two tunnel drives; and two others for providing space for the Capitol Hill Station finishes contractor to start work prior to completion by the U230 contractor.
- As part of the lessons learned from the Initial Segment, this contract includes a \$2,000,000 Provisional Sum for Award Fee, which is a program set up to provide incentives for contractor's performance exceeding contract requirements in five areas:
  1. Safety and Security;
  2. Environmental Compliance and Environmental Stewardship;
  3. Relationship with the local communities at Capitol Hill and Pine Street;
  4. Small Business/DBE/Apprentice Utilization;
  5. Interface management with other Sound Transit contractors.

- Staff recommends assignment a 10% contingency of \$15,355,600 for this contract, consistent with the project's risk assessment and the complex nature of underground construction.

**BUDGET IMPACT SUMMARY**

There is no action outside of the Board-adopted budget; there are no contingency funds required, no subarea impacts, or funding required from other parties other than what is already assumed in the financial plan.

**BUDGET and FINANCIAL PLAN DISCUSSION**

The Adopted 2009 Lifetime Capital Budget for University Link is \$1.756 billion. Within that amount \$210,993,000 has been set aside for U230 TBM Tunnels from Capitol Hill Station to the Pine Street Stub Tunnel in the construction phase.

Approval of this action would commit \$168,911,600 of the amount budgeted for U230 TBM Tunnels, and leave a remaining balance of \$42,081,400 for this budget line item.

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

**BUDGET TABLE**

**Action Item:** JCM U-Link Joint Venture (construct twin-bored tunnels from Capitol Hill Station to the Pine Street Stub Tunnel (PSST) within the University Link project)

(Year of Expenditure \$000)

<b>University Link</b>	Adopted 2009 Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
Agency Administration	115,229	37,254		37,254	77,975
Preliminary Engineering	24,388	24,329		24,329	59
Final Design	77,944	70,215		70,215	7,729
Right of Way	167,332	128,207		128,207	39,125
<b>Construction</b>	<b>1,180,033</b>	<b>553,298</b>	<b>168,912</b>	<b>722,210</b>	<b>457,823</b>
Construction Services	68,526	65,929		65,929	2,597
Third Party Agreements	18,646	13,573		13,573	5,073
Vehicles	103,909	99,185		99,185	4,724
<b>Total Current Budget</b>	<b>1,756,007</b>	<b>991,990</b>	<b>168,912</b>	<b>1,160,901</b>	<b>595,106</b>

**Construction Phase Budget Detail**

U230 TBM Tunnels CHS-PSST	210,993	-	168,912	168,912	42,081
Other Construction	969,040	553,298		553,298	415,742
<b>Total Phase</b>	<b>1,180,033</b>	<b>553,298</b>	<b>168,912</b>	<b>722,210</b>	<b>457,823</b>

<b>Contract Amount</b>	Board Approvals to Date (F)	Current Approved Contract Value (G)	Proposed Action (H)	Proposed Total for Board Approval (I)	Proposed Contract Value (J)
Contract Amount	-	-	153,556	153,556	153,556
Contingency	-	-	15,356	15,356	15,356
<b>Total Contract</b>	<b>-</b>	<b>-</b>	<b>168,912</b>	<b>168,912</b>	<b>168,912</b>
Percent Contingency	0%	0%	10%	10%	10%

(A) ADOPTED 2009 BUDGET amounts as adopted by resolution of the Sound Transit Board (R2008-14, approved 12/11/08).

(B) COMMITTED TO DATE amounts are from Agency WBS Report as of August 2009 + approved and pending board actions not recorded as of 8/30/09, or submitted after that date.

## **SMALL BUSINESS PARTICIPATION**

### Prime Contractor

JCM U-Link Joint Venture is the prime contractor for this contract. JCM U-Link Joint Venture has committed to a 9.67% Small Business participation goal, including 7.64 % for Disadvantaged Business Enterprises (DBEs), which exceeds Sound Transit's 9% Small Business and 6% DBE goals for this contract.

### Utilization Breakdown Table

<b>Subconsultant/Subcontractor</b>	<b>Business Type</b>	<b>% of Work</b>	<b>Dollar Value</b>
Grady Excavating	DBE	2.77%	\$4,000,000
J.P.Francis	Small Business	0.52%	\$752,855
Kroner Environmental	Small Business	0.52%	\$750,000
Rebar International	DBE	1.49%	\$2,156,617
Reliance Fire Protection	Small Business	0.99%	\$1,426,000
Warrior Electric	DBE	3.38%	\$4,873,000
<b>Total</b>		<b>9.67%</b>	<b>\$13,958,472</b>

Note: The above percentages are based on the proposed Contract Amount excluding Provisional Sums. The final Small Business and DBE participation percentages will be calculated based on the Total Contract Amount.

### EEO Commitment

JCM U-Link Joint Venture workforce demographics are 9% women and 5% people of color.

### Apprentice Utilization Commitment

JCM U-Link Joint Venture is committed to hiring apprentices for 20% of all labor hours.

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

Environmental compliance for University Link pursuant to the National Environmental Policy Act and State Environmental Policy Act was completed with the North Link Final Supplemental Environmental Impact Statement issued on April 7, 2006. The Federal Transit Administration (FTA) issued a Record of Decision in June 2006.

Final design for University Link project began after the Board authorized a contract execution with Northlink Transit Partners on November 9, 2006 to provide civil engineering and architectural final design services, and permission to enter final design from the FTA was received on December 11, 2006.

On July 14, 2008, through Resolution No. R2008-09, the Sound Transit Board approved the revised University Link Baseline Cost Estimate and authorized the submission of a revised Federal Full Funding Grant Agreement (FFGA) application. The FTA approved and signed the FFGA on January 15, 2009.

Between May 18, 2009 and June 1, 2009, Sound Transit advertised this contract as a competitive bid online and through local, regional, national and international publications. Two bids were received in response. The low bid was submitted by JCM U-Link Joint Venture (formed by Jay Dee Contractors, Frank Coluccio, and Michaels Corporation) in the amount of \$153,556,000. The bid was 12% below the Link engineer's estimate of \$174,304,700, the other bid received was for \$154,139,500.

Following extensive review of the bidder's qualifications and all other relevant information, and after meeting with bidder's management and proposed project personnel, Sound Transit's Legal, Contracts, Finance and Link departments concluded that this bidder is responsible, and that it submitted the lowest responsive bid. Sound Transit's evaluation included review of bidder's financial and safety plans and discussions with the bidder's references.

The scope of work in Contract U230, Tunnels, Capitol Hill Station to Pine Street Stub Tunnel comprises:

- a) Utility work including utility conservation and relocation primarily in East Denny Way and to a lesser extent in Nagle Place;
- b) Closing lengths of East Denny Way and Nagle Place that cross through the station site and across the new station box and implementing a traffic plan during the period of closure;
- c) Constructing a soldier pile wall with tie backs to a maximum depth of more than 90 feet below grade to form the temporary side walls of the CH Station box and temporary shotcrete walls with soil nails for the end walls;
- d) Excavating the Capitol Hill Station box to a maximum depth greater than 70 feet below grade (just below the future tunnel depth);
- e) Placing the base concrete invert slab for the station;
- f) Procuring, assembling, and launching a new Tunnel Boring Machine (TBM) of roughly 21-foot outside diameter bore. Recovering the TBM after excavating the northbound tunnel and re-launching it for the southbound tunnel;
- g) Constructing approximately 3,800 lineal feet of twin-bore tunnels between Capitol Hill Station and the Pine Street Stub Tunnel;
- h) Constructing five cross-passages connecting the two tunnels at 600 to 800-foot intervals using Sequential Excavation Mining (SEM) techniques;
- i) Installing tunnel invert slab and walkways, handrails, drainage piping and sump pumps, wet standpipes, embedded conduits for systems elements, including tunnel lighting and electrical outlets, and cathodic protection for corrosion control;
- j) Excavating and supporting a shaft at Pine Street Stub Tunnel for recovery of the TBM from the northbound drive and constructing the connection with the existing tunnel;
- k) Upon Substantial Completion, vacating the Capitol Hill Station site for the U260 Contractor to complete the station box and roof structure, pedestrian underpass below Broadway, backfill, and restoration of the site.

Sound Transit has obtained, or is in the process of obtaining, all key construction permits, and has incorporated permit conditions into this contract.

Nineteen properties have been purchased at the Capitol Hill Station site and all relocations have been completed.

A total of 39 tunnel easements are needed for U230 and are in various stages of acquisition. Possession and use of all required properties is anticipated in early 2010, well in advance of the scheduled launch of the U230 TBM in February 2011. In addition, a WSDOT Airspace Lease for the I-5 undercrossing has been completed. Sound Transit is also in the process of securing tieback easements.

In addition, Sound Transit is seeking a construction noise variance for the CH Station site. Sound Transit is scheduled to submit the variance application in late October 2009. The City of Seattle Department of Planning and Development allows for a sixty day review of the application during which time a public meeting will be scheduled. A noise variance is expected to be issued for the 24-hour tunneling phase of the work scheduled to start in February 2011.

**Prior Board/Committee Actions**

Motion/Resolution Number and Date	Summary of Action
R2008-09 7/24/08	Approving the revised University Link Project capital Baseline Cost Estimate at \$1.756 billion and authorizing the chief executive officer to submit a revised Full Funding Grant Agreement application with a federal share of \$813 million to the Federal Transit Administration for the University Link Project.

### **CONSEQUENCES OF DELAY**

The U230 contract is not on the schedule critical path of the University Link project. However it is to Sound Transit's benefit to award this contract as early as possible to prevent an impact to the schedule critical path should construction proceed slower or problems be encountered that cause a delay in the completion of the U230 contract.

### **PUBLIC INVOLVEMENT**

Sound Transit staff has held a number of station design workshops, project open houses, and other meetings since the beginning of environmental and preliminary engineering work; and during the final design work completed to date. Staff also meets regularly with the Capitol Hill and Pine Street communities, interested parties and affected stakeholders throughout the project area.

Sound Transit also has an active community outreach program during construction, which includes a 24-hours/7-days-a-week construction hotline, a variety of written materials, and public meetings. For this contract, there is a budget for additional public outreach activities included in the contract amount as a provisional sum.

Sound Transit staff has been notifying potentially affected stakeholders and public about the U230 construction work. Staff will also continue to closely work with local jurisdictions to coordinate public notification efforts and other outreach activities during this construction.

### **ENVIRONMENTAL COMPLIANCE**

JI, 09/25/09

### **LEGAL REVIEW**

JN, 10/02/09

## SOUND TRANSIT

### MOTION NO. M2009-90

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract with JCM U-Link Joint Venture to construct twin-bored tunnels and associated facilities between Capitol Hill Station and Pine Street Stub Tunnel for University Link in the amount of \$153,556,000, with a 10% contingency of \$15,355,600, for a total authorized contract amount not to exceed \$168,911,600.

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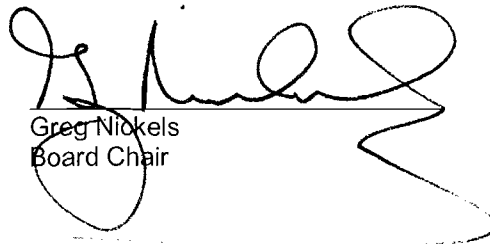
**Motion:**

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 JCM U-Link Joint Venture to construct twin-bored tunnels and associated facilities between Capitol Hill Station and Pine Street Stub Tunnel for University Link in the amount of \$153,556,000, with a 10% contingency of \$15,355,600, for a total authorized contract amount not to exceed \$168,911,600.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on October 22, 2009.

ATTEST:

  
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Marcia Walker  
Board Administrator

  
\_\_\_\_\_  
Greg Nickels  
Board Chair