

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2010-18

Contingency Increase for University Link Construction of I-5 Undercrossing Construction Pits

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Finance Committee	1/21/10	Discussion/Possible Action to Recommend Board Approval	Ahmad Fazel, Link Executive Director	(206) 398-5389
Board	1/28/10	Action	Joe Gildner, University Link Project Director Ben Emam, University Link Construction Manager	(206) 689-3350 (206) 398-5394

Contract/Agreement Type:	<input checked="" type="checkbox"/>	Requested Action:	<input checked="" type="checkbox"/>
Competitive Procurement	<input checked="" type="checkbox"/>	Execute New Contract/Agreement	
Sole Source		Amend Existing Contract/Agreement	<input checked="" type="checkbox"/>
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 increase the contingency for the contract with Condon Johnson and Associates for the University Link I-5 Undercrossing Construction Pits in the amount of \$3,900,000 for a new total authorized contract amount not to exceed \$26,537,810, which includes costs reimbursable to Sound Transit from third parties for betterments.

KEY FEATURES of PROPOSED ACTION

- The proposed action will increase the contract contingency by \$3,900,000 to address unanticipated changes that have occurred, as well as potential changes and remaining risks associated with completion of the work of the I-5 Undercrossing Construction Pits (Contract U215).
- The unanticipated changes that have occurred include:
 - a. Removing a number of obstructions (e.g. boulders) encountered during the installation of pit foundation elements;
 - b. Installation of additional shoring elements (primarily tiebacks) to support existing highway retaining walls adjacent to (and above) the pit excavations to mitigate measured wall deflections; and
 - c. Installation of supplemental cement grout to stabilize ground conditions behind and at the base of an existing highway retaining wall in locations that are in proximity to the pit excavations.
- The remaining risks include:
 - a. Excavation of the remaining segments (rings) of the pits on both sides of I-5;
 - b. Potential to encounter some contaminated soils in the pits on the west side of I-5; and
 - c. Demolition and extraction of large-diameter reinforced concrete cylinder pile segments within the limits of the future light rail tunnel bores.

- The current total authorized amount for this contract, \$22,637,810, includes reimbursements to Sound Transit by third parties for betterments in the amount of \$228,442.
- This proposed action is not associated with Contractor means-and-methods or construction sequencing issues that may impact the progress of the work.

BUDGET IMPACT SUMMARY

Current Project Phase: Construction
Projected Completion Date: 2016

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 2010 Lifetime Capital Budget for University Link is \$1.756 billion. Within that amount \$35,775,000 has been set aside for Sound Transit's share of costs for the U215 I-5 Undercrossing Contract in the construction phase. Current commitments for this budget line item are \$22,409,368. The proposed action would increase this amount by \$3,900,000 to a revised total commitment of \$26,309,368, leaving a remaining budget balance of \$9,465,632.

The current total amount authorized for this contract of \$22,637,810 includes reimbursements to Sound Transit by third parties for betterments in the amount of \$228,442 for which Sound Transit will be reimbursed by WSDOT, and subsequently not charged to the University Link project.

The proposed action to bring the total authorization to \$26,537,810 continues to be within the Link engineer's estimate of \$29,659,635 at the time of bidding. High risk elements have been assessed for this early work.

The proposed action is consistent with the current adopted 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: Condon Johnson and Associates (Increase contingency for Contract U215 I-5 Undercrossing Pits within the University Link project)

(Year of Expenditure \$000)

University Link	Adopted 2010 Budget (A)	Committed To Date (B)	This Action (C)	Total Committed & Action (D)	Uncommitted (Shortfall) (E)
Agency Administration	115,229	38,514		38,514	76,715
Preliminary Engineering	24,388	24,334		24,334	54
Final Design	82,944	69,799		69,799	13,145
Right of Way	152,332	128,714		128,714	23,618
Construction	1,180,033	557,784	3,900	561,684	618,349
Construction Services	78,526	65,930		65,930	12,596
Third Party Agreements	18,646	11,198		11,198	7,448
Vehicles	103,909	99,185		99,185	4,724
Total Current Budget	1,756,007	995,457	3,900	999,357	756,650

Construction Phase Budget Detail

U215 I-5 Undercrossing Pits	35,775	22,409	3,900	26,309	9,466
Other Construction	1,144,258	535,374		535,374	608,884
Total Phase	1,180,033	557,784	3,900	561,684	618,349

Contract Amount	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	19,688	19,688	-	19,688	19,688
Contingency	2,950	2,950	3,900	6,850	6,850
Total Contract	22,638	22,638	3,900	26,538	26,538
Percent Contingency	15%	15%	0%	35%	35%
Less Betterments	228	228	-	228	228
Total Sound Transit Share	22,409	22,409	3,900	26,309	26,309

(A) ADOPTED 2010 BUDGET amounts as adopted by resolution of the Sound Transit Board (R2009-23, approved 12/10/09).

(B) COMMITTED TO DATE amounts are from Agency WBS Report as of November 2009 + approved and pending board actions not recorded as of 11/30/09, or submitted after that date, and include allocated contingencies.

SMALL BUSINESS PARTICIPATION

Prime Consultant/Contractor

Condon Johnson is the prime contractor. Condon Johnson has committed to 19.22% Small Business participation, which exceeds Sound Transit's 18% goal for this contract. To date, Condon Johnson has achieved 18.5% Small Business participation.

Utilization Breakdown Table

Subconsultant/Subcontractor	Business Type	% of Work	Dollar Value
Leajak Concrete Construction Inc.	Small Business	0.71%	\$128,000
Meko Construction, Inc.	Small Business	9.79%	\$1,760,000
Novito Construction Inc.	Small Business	3.55%	\$639,000
Otto Rosenau & Associates, Inc.	Small Business	1.17%	\$211,000
Rainier Steel Inc.	Small Business	3.99%	\$718,000
Geo-Instruments, NW	Small Business	5.76%	\$1,035,000
Total		24.98%	\$4,491,000

EEO Commitment

Condon Johnson workforce demographics are 9% women and 41% minorities.

Apprentice Utilization Commitment

Condon Johnson is committed to hiring apprentices for 13% of all labor hours.

PROJECT DESCRIPTION and BACKGROUND for PROPOSED ACTION

Contract U215 (Interstate 5 Undercrossing Construction Pits) is an early works contract that will remove existing I-5 foundation elements (e.g. large-diameter cylinder pile structures) allowing the tunnel boring machine to pass under I-5 unobstructed.

On January 29, 2009, the Sound Transit Board authorized the chief executive officer to execute a contract with Condon Johnson and Associates to provide construction services for Contract U215 in the amount of \$19,687,810, with a contingency of \$2,950,000. Contract U215 has been established as one of the University Link Project early works contract packages preceding major heavy civil underground work associated with the project's twin tunnels. In this case, Contract U215 precedes the heavy civil work for Contract U230 (Capitol Hill Station to Pine Street Stub Tunnel). The strategy for this early work contract is to mitigate the scheduling risk inherent with the challenges of removing existing I-5 substructures within the limits of the future light rail tunnel bores.

The scope of work in this contract includes the following:

- Demolition and construction of four construction pits (depths varying from 60 to 80 feet below the lanes of I-5); two pits are located in the I-5 Olive Way northbound off-ramp, and two pits are located in the Pine/Pike reversible ramp;
- Maintenance of traffic provisions to allow full closure of the two I-5 ramps and detour of all non-construction traffic onto city streets;
- Excavation of the pits in 10-foot increments (rings), tieback support for each ring, and reinforced cast-in-place concrete walls that tie-in with adjoining substructure elements of I-5;
- Removal of existing cylinder pile elements within the limits of the future light rail tunnel bores that will be mined with a tunnel boring machine passing underneath I-5; and
- Backfilling, restoring pavement, grinding and re-paving of the Pike/Pine reversible ramp, and restoring utilities.

At present, the work on the pits is approximately 40% complete. As previously mentioned the work has encountered some unanticipated events that have required the commitment of approximately 90% of the allocated contingency. These events have also resulted in the erosion of all contract schedule float and have created some delay that Sound Transit and the Contractor continue to assess and identify means/methods to mitigate.

Sound Transit staff has reviewed the status of the work and reassessed the risk matrix associated with the remaining work in this contract. Based on this work, Sound Transit is recommending an increase in the allocated contingency in the amount of \$3,900,000.

Prior Board/Committee Actions

Motion/Resolution Number and Date	Summary of Action
M2009-12 1/29/09	Executed a contract with Condon Johnson and Associates Inc., to provide construction services at the Interstate-5 undercrossing site within the University Link project in the amount of \$19,687,810, with a contingency of \$2,950,000, for a total authorized contract amount not to exceed \$22,637,810, which includes costs reimbursable to Sound Transit from the Washington State Department of Transportation for betterments.

CONSEQUENCES of DELAY

A delay in approving the added contingency request could potentially delay the contract work resulting in significant cost exposure directly to the contract and indirectly through support services and liquidated damages to WSDOT.

A significant delay in approving the added contingency request could also impact the follow-on tunnel work.

PUBLIC INVOLVEMENT

Sound Transit staff has held numerous project public meetings, station design workshops, and construction open houses since the beginning of the University Link project. Staff also meets regularly with the Capitol Hill community, Capitol Hill Chamber of Commerce, other interested parties, and affected stakeholders throughout the project area.

Sound Transit has an active community outreach program during construction, which includes a 24-hours-a-day/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 I-5 ramp closures and traffic detours associated with U215 construction work. Staff will continue to closely work with WSDOT, Seattle Department of Transportation, and King County Metro staff to coordinate public notification efforts and other outreach activities during construction.

ENVIRONMENTAL COMPLIANCE

Jl, 1/4/10

LEGAL REVIEW

JW 1/14/10

SOUND TRANSIT

MOTION NO. M2010-18

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to increase the contingency for the contract with Condon Johnson and Associates for the University Link I-5 Undercrossing Construction Pits in the amount of \$3,900,000 for a new total authorized contract amount not to exceed \$26,537,810, which includes costs reimbursable to Sound Transit from third parties for betterments.

Background:

Contract U215 (Interstate 5 Undercrossing Construction Pits) is an early works contract that will remove existing I-5 foundation elements (e.g. large-diameter cylinder pile structures) allowing the tunnel boring machine to pass under I-5 unobstructed.

On January 29, 2009, the Sound Transit Board authorized the chief executive officer to execute a contract with Condon Johnson and Associates to provide construction services for Contract U215 in the amount of \$19,687,810, with a contingency of \$2,950,000. Contract U215 has been established as one of the University Link Project early works contract packages preceding major heavy civil underground work associated with the project's twin tunnels. In this case, Contract U215 precedes the heavy civil work for Contract U230 (Capitol Hill Station to Pine Street Stub Tunnel). The strategy for this early work contract is to mitigate the scheduling risk inherent with the challenges of removing existing I-5 substructures within the limits of the future light rail tunnel bores.

The scope of work in this contract includes the following:

- Demolition and construction of four construction pits (depths varying from 60 to 80 feet below the lanes of I-5); two pits are located in the I-5 Olive Way northbound off-ramp, and two pits are located in the Pine/Pike reversible ramp;
- Maintenance of traffic provisions to allow full closure of the two I-5 ramps and detour of all non-construction traffic onto city streets;
- Excavation of the pits in 10-foot increments (rings), tieback support for each ring, and reinforced cast-in-place concrete walls that tie-in with adjoining substructure elements of I-5;
- Removal of existing cylinder pile elements within the limits of the future light rail tunnel bores that will be mined with a tunnel boring machine passing underneath I-5; and
- Backfilling, restoring pavement, grinding and re-paving of the Pike/Pine reversible ramp, and restoring utilities.

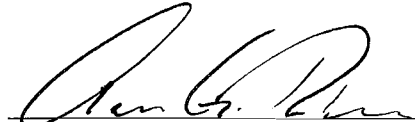
At present, the work on the pits is approximately 40% complete. As previously mentioned the work has encountered some unanticipated events that have required the commitment of approximately 90% of the allocated contingency. These events have also resulted in the erosion of all contract schedule float and have created some delay that Sound Transit and the Contractor continue to assess and identify means/methods to mitigate.

Sound Transit staff has reviewed the status of the work and reassessed the risk matrix associated with the remaining work in this contract. Based on this work, Sound Transit is recommending an increase in the allocated contingency in the amount of \$3,900,000.

Motion:

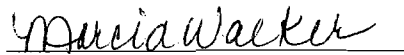
It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to increase the contingency for the contract with Condon Johnson and Associates for the University Link I-5 Undercrossing Construction Pits in the amount of \$3,900,000 for a new total authorized contract amount not to exceed \$26,537,810, which includes costs reimbursable to Sound Transit from third parties for betterments.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on January 28, 2010.



Aaron Reardon
Board Chair

ATTEST:



Marcia Walker
Board Administrator