Progress Report Link Light Rail Program



Downtown Bellevue Tunnel- Excavation of Enlarged Tunnel Section (East Link Extension)

FEBRUARY | 2018









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Link Light Rail Program Overview



Projects

University Link Extension (U-Link): This project is a 3.15-mile light rail segment which is located entirely underground with tunnels traveling from Pine Street, under the I-5 freeway to an underground station at Capitol Hill, continuing north beneath SR 520 and the Montlake Cut to an underground station on the University of Washington campus, near Husky Stadium. The Sound Transit Board adopted the baseline capital budget of \$1.76B in July 2008. Revenue Service began on March 19, 2016.

Northgate Link Extension: The University of Washington Station (UWS) to Northgate project is a 4.3-mile extension of light rail from the UWS north under campus via twin-bored tunnels to an underground station at NE 45th Street continuing to an underground station at NE 65th Street and via tunnel, retained cut and elevated sections to Northgate. Revenue Service date is September 2021. The Sound Transit Board adopted the baseline capital budget of \$2.13B originally in 2012 and revised the baseline budget to \$1.89B in October 2015.

Lynnwood Link Extension: Lynnwood Link Extension extends light rail 8.5 miles to Snohomish County along I-5 from Northgate Mall in Seattle to the Lynnwood Transit Center, with four new light rail stations. The configuration includes at-grade, elevated, and retained cut/fill alignment. Final Design for Lynnwood has a budget of \$488.4M.

East Link Extension: East Link Extension expands light rail to East King County via I-90 from Downtown Seattle to the Overlake Transit Center area of Redmond, with stations serving Rainier Avenue/I-90, Mercer Island, South Bellevue, Downtown Bellevue, Overlake Hospital, the Bel-Red corridor, Overlake Village and the Redmond Technology Center (formerly Overlake Transit Center). Revenue service to the Redmond Technology Center is forecast for early 2023 with a tunnel route in Downtown Bellevue. The Sound Transit Board adopted the baseline capital budget of \$3.67B in April 2015.

Downtown Redmond Link Extension: The Downtown Redmond Link Extension builds new light rail from the Redmond Technology Center Station to downtown Redmond by 2024. Light rail will travel along SR-520 with two new stations in southeast Redmond, at Marymoor Park, and downtown Redmond. Preliminary Engineering for the Redmond light rail extension has a budget of \$28.6M.

West Seattle and Ballard Link Extensions: The West Seattle & Ballard Link Extensions are voter-approved projects under the ST3 Plan. West Seattle segment includes 4.7 miles of light rail from downtown Seattle to West Seattle's Junction neighborhood. It includes five light rail stations. The route will run primarily on elevated guideway with a new rail-only bridge over Duwamish River.

The Ballard segment includes 7.1 miles of light rail from downtown Seattle to Ballard's Market Street area. It includes nine light rail stations. The route will run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay. The current budget for these projects through completion of Preliminary Engineering is \$286M.

South 200th Link Extension: S. 200th Link Extension consists of a 1.6-mile extension of the light rail from the SeaTac/Airport Station to an elevated station at South 200th Street. The Project was developed through a designbuild (DB) delivery strategy. The Sound Transit Board adopted the baseline capital budget of \$383.2M in 2011. Revenue Service began on September 24, 2016.

Federal Way Link Extension: The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center. The extension generally parallels SR 99 and I-5 freeway with stations at Kent/Des Moines, South 272nd Star Lake park –and-ride and the Federal Way Transit Center. The current budget for this project through completion of Final Design is \$412.6M.

Tacoma Link Extension: The Tacoma Link Extension is a 2.4-mile extension of the existing Tacoma Link system from the Theater District in downtown Tacoma to the Hilltop neighborhood. The extension will travel at-grade along Stadium Way, North 1st. Street, Division Avenue, and Martin Luther King Jr. Way. The Sound Transit Board adopted the baseline capital budget of \$217.3M in September 2017.

Tacoma Dome Link Extension: This project will extend light rail from the Federal Way Transit Center in the City of Federal Way to the Tacoma Dome area in the City of Tacoma a total distance of approximately 9.7 miles, generally along or near I-5 with three elevated stations at South Federal Way, Fife, and East Tacoma, and one at-grade/retained station at the Tacoma Dome. The budget for this project through completion of Preliminary Engineering in June 2019 is \$125.7M.

Link Operations and Maintenance Facility East:

This project located in the City of Bellevue, includes a 160,000 square foot operations and maintenance facility that will maintain, store and deploy and expand light rail fleet, including seven LRV service bays, a LRV wash facility and storage for up to 96 light rail vehicles. The ST Board adopted the baseline capital budget of \$449.2M in July 2016.

Light Rail Vehicle (LRV) Fleet Expansion: This project includes the design, manufacturing, inspection, testing and delivery of 152 low floor LRVs for service requirements of Northgate, East Link and Lynnwood Link Extensions. The Sound Transit Board adopted the baseline capital budget of \$733M originally in 2015 and revised the baseline budget to \$740.7M in April 2017 to allow for the procurement of 30 additional vehicles.

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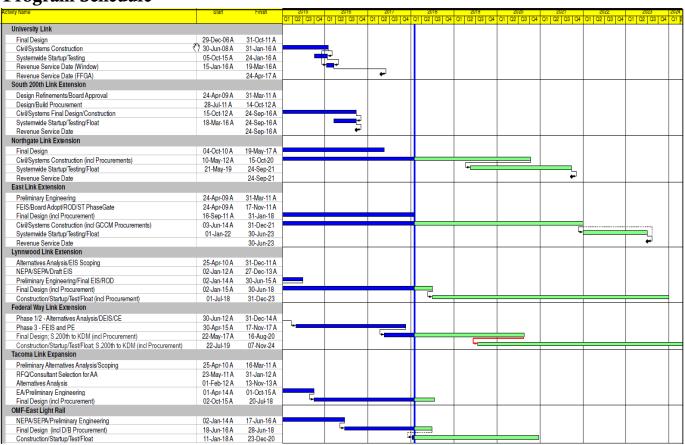
Link Light Rail Program Overview

Program Budget

Table in millions.

Project	Authorized Project Allocation	Commitment to Date	Incurred to Date	Forecast to Complete	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
University Link	\$1,756.0	\$1,514.1	\$1,505.0	\$40.0	\$1,554.1	\$202.0
Northgate Link Extension	\$1,899.8	\$1,616.4	\$1,097.2	\$231.0	\$1,847.4	\$52.4
Lynnwood Link Extension	\$667.3	\$256.4	\$208.9	\$411.0	\$667.3	\$0
East Link Extension	\$3,677.2	\$2,997.1	\$1,122.9	\$680.0	\$3,677.2	\$0
Downtown Redmond Link	\$178.0	\$16.5	\$12.5	\$161.5	\$178.0	\$0
West Seattle & Ballard Link	\$285.9	\$26.5	\$5.2	\$259.4	\$285.9	\$0
South 200th Link Extension	383.2	330.9	328.1	1.7	332.6	\$50.6
Federal Way Link Extension	\$412.6	\$80.3	\$61.2	\$332.3	\$412.6	\$0
Tacoma Link Extension	\$217.3	\$56.8	\$23.0	\$160.6	\$217.3	\$0
Tacoma Dome Link Extension	\$125.7	\$11.0	\$1.0	\$114.7	\$125.7	\$0
Link O & M Facility: East	\$449.2	\$353.6	\$140.7	\$95.7	\$449.2	\$0
LRV Fleet Expansion	\$740.7	\$653.8	\$74.3	\$86.9	\$740.7	\$0
Total Link	\$10,793.0	\$7,913.4	\$4,580.2	\$2,574.6	\$10,488.1	\$304.9

Program Schedule



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Scope

Limits: 3.15-mile extension of the Initial Segment

light rail transit (LRT) system from the Pine Street Stub Tunnel (PSST) in downtown Seattle to University of Washington (UW) cam-

pus near Husky Stadium.

Tunnels: Two twin bored tunnels. Two contract seg-

ments: U220 starts at Husky Stadium, continues beneath SR 520 and the Montlake Cut south to the Capitol Hill underground station. U230 commences at Capitol Hill Station and proceeds south under the I-5 freeway to the

PSST.

Stations: 2 underground center platform stations –

Capitol Hill (U240) and University of Washington (U250). U240 is approximately 65' underground with three station entrances. U250 is about 100' below ground, with three station entrances and connections to the UW

campus by a pedestrian bridge.

System: 27 LRV; direct fixation tracks, signals, trac-

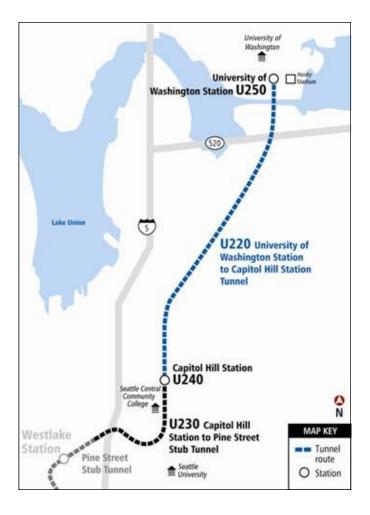
tion electrification, and SCADA communica-

tions

Budget: \$1.948 billion including finance cost (capital

subtotal of \$1.756 billion)

Schedule: Revenue Service began on March 19, 2016.



Key Project Issues

- *U830 Systems*: Contractor continues on the miscellaneous punch list on U-Link and systems refinement to achieve optimal operation status. U-Link Systems continues to address some issues related to this infancy period and is working to resolve them.
- Certificate of Occupancy: University Link continues to operate under a temporary certificate of occupancy until all permit requirements are fully met. The final items remaining are the utilities as-built to be submitted to City of Seattle (SPU). Final review of the emergency ventilation systems by the Seattle Fire Department (SFD) is complete and has been accepted by SFD.
- Commercial issues with all prime Civil contractors (with the exception of Capitol Hill Station Contractor) has been negotiated as the project proceeds through the close out process. Finalizing review of commercial issues with Systems contractor.
- Miscellaneous follow-on commitments and restoration work remains. Decommissioning of monitoring wells, restoration of the project staging area on Pine Street are anticipated when the weather improves. Before and After Study commitment to be initiated in the Fall of 2018.

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Project Cost Summary

The U-Link project cost is summarized in two types of cost classifications. In the first table, cost is classified in accordance with Sound Transit's Work Breakdown Structure (WBS); and in the second table, cost is summarized in accordance to the FTA's Standard Cost Categories (SCC) format. (Both tables' figures in millions).

Cost Summary by Phase

WBS Phase Elements	Baseline Budget		Project		Co	Commitment to Date*		Incurred to Date		stimated Final Cost (EFC)	Authorized Allocation vs. EFC	
ADMINISTRATION	\$	115.23	\$	113.55	\$	82.72	\$	81.91	\$	88.16	\$	25.40
PRELIMINARY ENGINEERING	\$	24.39	\$	24.26	\$	24.26	\$	24.26	\$	24.26	\$	-
FINAL DESIGN	\$	77.94	\$	90.31	\$	87.97	\$	86.57	\$	89.17	\$	1.13
CONSTRUCTION SERVICES	\$	68.53	\$	94.81	\$	86.94	\$	86.58	\$	88.71	\$	6.11
3rd PARTY AGREEMENTS	\$	18.65	\$	18.65	\$	11.65	\$	11.31	\$	13.23	\$	5.42
CONSTRUCTION	\$	1,180.00	\$	1,158.18	\$	994.89	\$	988.78	\$	1,021.84	\$	136.34
VEHICLES	\$	103.91	\$	103.91	\$	99.20	\$	99.19	\$	101.91	\$	2.00
ROW	\$	167.33	\$	152.33	\$	126.43	\$	126.43	\$	126.78	\$	25.55
Capital Total	\$	1,755.97	\$	1,756.01	\$	1,514.06	\$	1,505.03	\$	1,554.05	\$	201.95
FINANCE COST	\$	191.71	\$	191.71	\$	191.71	\$	174.87	\$	191.71	\$	-
Project Total	\$	1,947.68	\$	1,947.72	\$	1,705.77	\$	1,679.91	\$	1,745.76	\$	201.95

^(*) Totals may not equal column sums due to rounding of line entries.

In February, the projected Estimated Final Cost (EFC) including Finance Cost remains at about \$1.75B. As the project inches closer to close out, the timing for expenditure becomes less predictable. This period, after some cost adjustments the project expenditure net about \$140K increasing the total direct expenditure to about \$1.5B (Finance Cost excluded). Current activities continues to pertain to close out and miscellaneous follow on work. The construction EFC continues to be approximately \$1B. This trend continues to hold as the project is substantially complete with only miscellaneous follow on scope and commercial issues remaining. Systems continues optimization process with miscellaneous operational equipment purchases trailing. The Total Incurred to Date for the Construction Phase is about \$989M and LRV is at about \$99.2M. Cost of LRV repairs were excluded from this project and tracked independently.

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Construction EFC under the SCC format remains relatively unchanged at about \$998M. Construction SCC expenditures to date is about \$977M this period mostly attributed to Systems' continuing optimization and resolutions to change order work and miscellaneous follow on work. Total capital cost incurred to date including non-construction cost (SCC 60 thru 90) now at \$1.5B or about 86% of total project budget scoped (Finance Cost excluded). Total project cost incurred to date at the end of February 2018 including Finance Cost is at \$1.68B. The financing cost incurred to date is about \$175M. University Link EFC continues to be projected to close out with at least \$200M under budget excluding financing cost.

Cost Summary by SCC

Project Elements by SCC	Baseline Budget		Authorized Project Allocation		Commitment to Date*		Incurred to Date		Estimated Final Cost (EFC)		Authorized Allocation vs. EFC	
10 Guideway & Track Elements	\$	626.83	\$	450.46	\$	455.60	\$	455.58	\$	461.23	\$	(10.77)
20 Stations	\$	366.33	\$	350.75	\$	344.76	\$	342.95	\$	353.10	\$	(2.34)
30 Support Facilities: Yards, Shops	\$	7.01	\$	24.83	\$	23.48	\$	23.34	\$	24.80	\$	0.03
40 Sitework & Special Conditions	\$	59.03	\$	67.39	\$	57.14	\$	54.92	\$	56.89	\$	10.50
50 Systems	\$	69.63	\$	116.42	\$	100.86	\$	100.22	\$	102.40	\$	14.02
Construction Subtotal (SCC 10-50)	\$	1,128.82	\$	1,009.85	\$	981.84	\$	977.01	\$	998.41	\$	11.44
60 Row, Land, Existing Improvements	\$	167.33	\$	126.60	\$	126.43	\$	126.43	\$	125.76	\$	0.84
70 Vehicles	\$	99.76	\$	100.16	\$	99.87	\$	99.87	\$	100.16	\$	0.00
80 Professional Services	\$	306.41	\$	346.58	\$	305.92	\$	301.73	\$	318.24	\$	28.35
90 Unallocated Contingency	\$	53.65	\$	172.81	\$	-	\$	-	\$	11.48	\$	161.33
Capital Cost Total (SCC 10-90)	\$	1,755.97	\$	1,756.01	\$	1,514.06	\$	1,505.03	\$	1,554.05	\$	201.95
100 Finance Cost	\$	191.71	\$	191.71	\$	191.71	\$	174.87	\$	191.71	\$	-
Project Total	\$	1,947.68	\$	1,947.72	\$	1,705.77	\$	1,679.91	\$	1,745.76	\$	201.95

^(*)Totals may not equal column sums due to rounding of line entries.

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Scope

Limits: The Northgate Link Extension consists of 4.3

miles of light rail extending from the University of Washington to Northgate.

Alignment: The extension begins at the UW Station,

boring tunnels under campus then continues north to a portal located north of NE 94th Street on the east side of I-5, then transitioning to an aerial structure running north to the

Northgate Mall.

Stations: The *U District Station (UDS)* is an underground

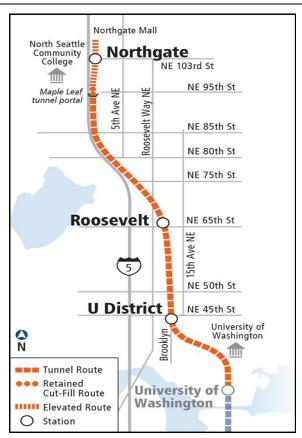
station located on the west side of the UW campus near Brooklyn Ave. and NE 45th St. The *Roosevelt Station (RVS)* is an underground station located near NE 65th St. and 12th Ave NE. The *Northgate Station* is an elevated station located at the southwest edge of the

Northgate Mall property.

Systems: Include Signals, track electrification, and

SCADA communications.

Budget: \$1.899 Billion
Service: September 2021
Phase: Construction



Key Project Activities

- Held an Executive Partnering meeting with Stacy & Witbeck, the N180 Trackwork Contractor, and the Team felt well-positioned to begin installation of the floating slabs in early April.
- The N125 Contractor, JCM, handed over the Maple Leaf Portal (MLP) site and the MLP to Roosevelt tunnels to the N180 Contractor on February 13.
- The first load of Ultra-Straight Rail arrived on site and will be installed under the UW campus to mitigate ground-borne vibrations from the LRVs.
- Tunnel, Cross Passages, and Maple Leaf Portal (N125): Crews completed work on the final ADA ramps. The Uninterruptable Power Supply at University of Washington Station was started up and testing and commissioning is scheduled for early March.
- *U District Station/UW Campus (N140):* In the north area of the station box, Hoffman completed formwork and stripping interior walls. In central area, crews completed installation of shoring and decking for X-struts and east and west walers. In the south area, crews completed stripping formwork from interior and exterior walls.

- Roosevelt Station (N150): ST will incorporate approved transit integration items received from King County Metro (KCM) into design and provide to the station contractor. Hoffman completed detensioning tiebacks on south walls and placed concrete for the south walls. Construction crews completed removal of north basement level 3 reshoring, forming north walls and reinforcing center roof slab.
- Northgate Station (N160): Project staff met with KCM staff to discuss proposed additional scope and budget for the bus layover that is reimbursable by KCM. Contractor continues to show completion of garage on schedule for later this year.

 Guideway Substructure/Superstructure: Work progressed on spans and caps. Station: Work progressed on platform beams; crews began forming mezzanine level.
- *Trackwork (N180):* The trackwork contractor Stacy and Witbeck is starting work in all tunnel reaches to prepare for track installation. Contractor crews installing 26kV cable in tunnels from UDS to RVS. All rail is fabricated and delivery to the Maple Leaf Portal began end of February.

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Closely Monitored Issues:

- N125 Milestone 6 contractual date was February 11, 2018. The CM team has agreed work was physically completed on February 13, but Substantial Completion has not yet been issued. JCM and the electrical sub-contractor have yet to provide all testing, commissioning, as built drawings, O&M manuals and warrantees as required by contract.
- In N140 U District Station, there is a concern that the schedule may be impacted due to the long submittal review cycles. The CM team is working with the design team to improve the submittal review process.



Ongoing tunnel electrical work.

Project Cost Summary

The Northgate Link Extension project cost is summarized below by two cost categorizations. In the first table, the cost is summarized in accordance with Sound Transit's Work Breakdown Structure (WBS). The second table summarizes the project in accordance with the FTA's Standard Cost Category (SCC) format. The figures in both tables are shown in millions.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
ADMINISTRATION	\$144.9	\$144.9	\$55.8	\$55.8	\$136.0	\$8.9
PRELIMINARY ENGINEERING	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$0.0
FINAL DESIGN	\$132.2	\$132.2	\$117.0	\$108.7	\$134.4	\$(2.3)
CONSTRUCTION SERVICES	\$118.3	\$118.3	\$103.1	\$63.6	\$110.7	\$7.6
3rd PARTY AGREEMENTS	\$11.8	\$11.8	\$10.0	\$6.6	\$12.4	\$(0.6)
CONSTRUCTION	\$1,343.0	\$1,343.0	\$1,215.2	\$747.3	\$1,332.8	\$10.2
ROW	\$112.3	\$112.3	\$100.3	\$100.1	\$106.0	\$6.3
PROJECT CONTINGENCY	\$22.2	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
Total	\$1,899.8	\$1,899.8	\$1,616.4	\$1,097.2	\$1,847.4	\$52.4

The Estimated Final Cost (EFC) for the project as of this reporting period is \$1,847.4M, which is \$52.4M below the current project budget. This period approximately \$32.3M was incurred, of which \$23.9M was for the ongoing major construction contracts including the N125 tunneling contract, the N140, N150, and N160 Station Finishes contracts, the N180 Trackwork contract and N830 Systems contract, and other miscellaneous construction; \$0.4M was incurred for Civil and Systems Final Design and design support during construction; and \$0.9M was for Construction Management. The remaining expenditures were for third party coordination, permits, staff, legal, right-of-way and other direct charges.

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Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 GUIDEWAY & TRACK	\$595.6	\$549.3	\$510.4	\$433.0	\$534.9	\$14.4
20 STATIONS	\$376.1	\$424.1	\$416.3	\$165.5	\$445.9	(\$21.8)
30 SUPPORT FACILITIES: YARD,	\$5.3	\$5.3	\$6.4	\$5.6	\$6.4	(\$1.2)
40 SITEWORK & SPECIAL CONDITIONS	\$140.8	\$224.2	\$165.1	\$122.3	\$217.4	\$6.8
50 SYSTEMS	\$110.9	\$96.7	\$106.8	\$12.6	\$102.9	(\$6.2)
Construction Subtotal (SCC 10 - 50)	\$1,228.7	\$1,299.6	\$1,205.1	\$738.9	\$1,307.5	(\$7.9)
60 ROW, LAND, EXISTING IM- PROVEMENTS	\$119.9	\$110.9	\$100.3	\$100.1	\$105.5	\$5.4
80 PROFESSIONAL SERVICES	\$420.7	\$431.6	\$311.1	\$258.2	\$429.0	\$2.6
90 CONTINGENCY	\$130.4	\$57.7	\$0.0	\$0.0	\$5.4	\$52.3
Capital Total (SCC 10 - 90)	\$1,899.8	\$1,899.8	\$1,616.4	\$1,097.2	\$1,847.4	\$52.4

Cost Contingency Management

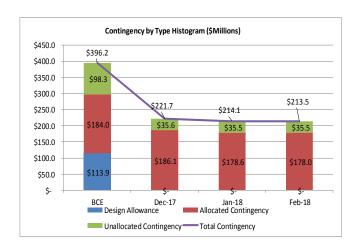
Compared to the baseline amount of \$396.2M, the Total Contingency has decreased by \$182.7M to \$213.5M, which is 28.5% of project work remaining. During this reporting period, a decrease of \$0.6M in the overall project contingency occurred. Detailed information is provided below.

Design Allowance – The baseline Design Allowance of \$113.9M has been fully depleted and all major contracts have been awarded.

Allocated Contingency – Compared to the baseline amount of \$184.0M, Allocated Contingency has decreased by \$6.0M to \$178.0M. During this reporting period, a decrease of \$0.6M occurred due to the execution of change orders on the N125 Tunneling contract and the N180 Trackwork contract.

Unallocated Contingency – Compared to the baseline amount of \$98.3M, Unallocated Contingency has decreased by \$62.8M to \$35.5M. No changes to the UAC occurred during this reporting period.

	Base	line	Current				
Contingency Status	Amount	% of Total	Amount	% of Work Remain- ing			
Design Allowance	\$ 113.9	5.3%	\$ -	0.0%			
Allocated Contingency	\$ 184.0	8.6%	\$ 178.0	23.7%			
Unallocated Contingency	\$ 98.3	4.6%	\$ 35.5	4.7%			
Total	\$ 396.2	18.6%	\$ 213.5	28.5%			



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Project Schedule

As of February 2018, all Northgate Link civil contracts are under construction and the calculated physical percent complete for all major construction contracts is approximately 56%.

The Northgate Link Extension remains on schedule this period, with civil construction forecast to complete in the 3rd QTR 2020. Systems construction is forecast to complete in late 4th QTR 2020.

The N125 Tunneling Contractor (JCM) has completed contract work, and is currently focused completing punchlist items.

The N140 U District Station Contractor, Hoffman Construction, continues to work on the basic structure below grade primarily at the Basement Level 2 and center sections of the station.

At Roosevelt Station (RVS), the N150 Contractor, Hoffman Construction, is currently working on the Roof Level structural concrete. Electrical rough-in is underway.

The N160 Contractor, Absher is constructing the columns, beams, and supports for the elevated guideway between the Maple Leaf Portal and the Station. The Station platform slabs are being formed and poured. The Basement Level 1 of the Garage is currently under construction.

On the N180 Trackwork Contractor, Stacy and Witbeck, continues to manage the production of the pre-cast floating slabs and insulating pads. The Ultra-Straight Rail began arriving at the Maple Leaf Portal at the end of February. Stacy Witbeck is installing the 26Kv power cable from UWS to UDS and preparing the tunnel for floating slab installation.

The N830/E750 Systems Contractor, Mass Electric, is continuing engineering and procurement work. Mass is also preparing to install the Electro Magnetic Interference cable in conjunction with the placement of the floating slabs.

ST has completed negotiating the impact of the Teamster Strike on N140, N150, and N160 contracts and will processing the completed change orders in mid-March.

Revenue Service date for Northgate Link Extension is scheduled in September 2021.

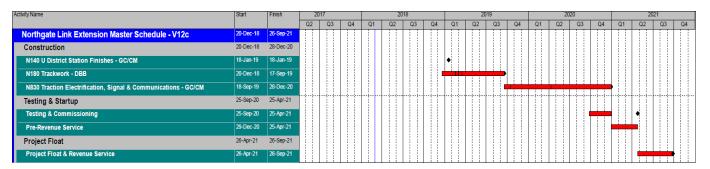
tivity Name	Start	Finish	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
N d Alilea i M A A	24-Dec-10 A	26-Sep-21	Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	1 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3
Northgate Link Extension Master Sc													· ·
Final Design	24-Dec-10 A	04-Nov-16 A						1					
Construction	01-Aug-12 A	28-Dec-20		_									•
N105 - Advanced Demolition & Site Prep - DBB	04-Aug-14 A	28-Nov-16 A				-		_	,				
N110 - Construction Advanced Utility Relocation - D	06-Mar-13 A	28-May-13 A			-								
N111 Advance Utility Relocation, Northgate Area - D	17-Feb-14 A	22-Jun-16 A				V							
N112 Advanced Demolition & Site Prep, U District &	01-Aug-12 A	31-Aug-13 A		_									
N113 115kV Relocation at Northgate - DBB	31-May-16 A	21-Feb-17 A						7	•				
N125 TBM Tunnels (UW Station to Maple Leaf Porta	30-Sep-13 A	14-Mar-18			_					•			
N140 U District Station Finishes - GC/CM	08-Feb-16 A	25-Feb-20						•				•	
N150 Roosevelt Station Finishes - GC/CM	18-Apr-16 A	22-Oct-19						-			-		
N160 Northgate Station and Elevated Guideway - DI	17-Jul-15 A	04-Mar-20					-					•	
N180 Trackwork - DBB	23-Feb-16 A	27-Nov-19						V			-		
N830 Traction Electrification, Signal & Communicat	09-Apr-15 A	28-Dec-20					_						•
Testing & Startup	04-Aug-17 A	25-Apr-21											,
Level 1 - Local Testing (Civil)	27-Mar-18	25-Feb-20								▼			
Testing & Commissioning	25-Sep-20	25-Apr-21										-	-
Vibration Attenuation Estimates	04-Aug-17 A	14-Oct-20										-	
Project Float	26-Apr-21	26-Sep-21											-
Project Float & Revenue Service	26-Apr-21	26-Sep-21											-
Program Wide Float (CD)	26-Apr-21	26-Sep-21											
Northgate Link Complete - Revenue Service Begins		26-Sep-21											

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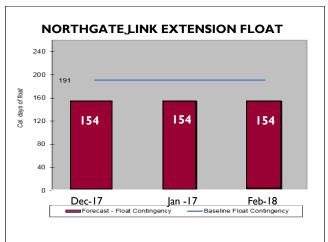
Critical Path Analysis

The critical path for the Northgate Link Extension continues to rest in the N140, N180, and N830 contracts. There were no changes in the critical path for this period.



Critical Path Float

The Northgate Link Project currently retains 154 days of unallocated project float. Should the project be unable to retain the remaining contract interface floats some project float may need to be used.



Construction Safety

Data/ Measure	Feb 2018	Year to Date	Project to Date
Recordable Injury/Illness Cases	5	7	86
Days Away From Work Cases	0	0	6
Total Days Away From Work	0	0	397
First Aid Cases	6	13	110
Reported Near Mishaps	2	5	89
Average Number of Employees on Worksite	392	956	18,016
Total # of Hours (GC & Subs)	71,179	154,710	3,062,843
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	14.05	9.05	5.62
Lost Time Injury (LTI) Rate	0.00	0.00	0.39
Recordable National Average	3.20	3.20	3.20
LTI National Average	1.30	1.30	1.30
Recordable WA State Average	6.40	6.40	6.40
LTI WA State Average	2.10	2.10	2.10

Note: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals.

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Contract N125 - TBM Tunnels

Current Progress

The N125 Contractor, JCM, has completed the bulk of the contract work and demobilized from the Maple Leaf Portal site. The site has been turned over to the N180 Trackwork Contractor. JCM is finishing the remaining punchlist work as work continues in the tunnel segments between U District Station (UDS) and Roosevelt Station (RVS). Punchlist work is also taking place at the Maple Leaf Portal.

Surface restorations are continuing as weather permits. JCM will need to complete the As-Built drawings prior to achieving Substantial Completion.

Schedule Summary

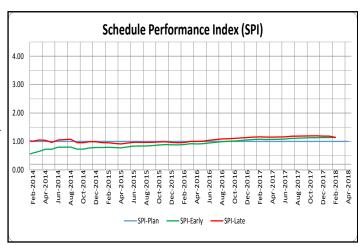
JCMs' February schedule update shows the contract work complete as of February 16, with Acceptance on March 25, 2018. The remaining punchlist items do not impact any follow-on contracts.

Activity Name	OD	RD	Start	Finish	2018	
					Q1	Q2
N125 - TBM Tunnels	1023	17	01-Feb-14 A	25-Mar-18		
N125	1023	17	01-Feb-14 A	25-Mar-18		
Construction	1023	17	01-Feb-14 A	25-Mar-18		
Payment Triggers - Project Demobilization	0	0	01-Mar-18	01-Mar-18	P	
Submittals - Review & Approve	30	25	24-Feb-14 A	25-Mar-18		
Station Work MLP	22	5	01-Feb-14 A	07-Mar-18		
Station Work UW	1	1	01-Mar-18	01-Mar-18	 	
Cross Passages - Additional SEM Measures	0	0	01-Mar-18	01-Mar-18	•	

Schedule Performance Index

The early SPI for this period is 1.1, and the late is 1.2 as the project nears Substantial Completion anticipated in March 2018.

The schedule update reports a Performance Percent complete of 99% with a Cost Percent complete of 98%.



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Key Activities

Current Period

- Achieved Physical Completion of contract work.
- Continued working on punch list items.
- Continued submitting as-built drawings and O&M manuals.
- Continued processing change orders.

Next Period

- Complete remaining punch list items.
- Complete submission of outstanding as-builts and O&M manuals.
- Continue finalizing remaining change orders.

Closely Monitored Issues

• There are numerous open claims on the contract that are at being reviewed and/or negotiated at various levels of partnering. Close-out of these remaining items will be necessary to achieve Final Acceptance.

Cost Summary

Present Financial Status	Amount
N125 Contractor - JCM Northlink	
Original Contract Value	\$ 440,321,000
Change Order Value	\$ 58,885,488
Current Contract Value	\$ 499,206488
Total Actual Cost (Incurred to date)	\$ 491,147,039
Financial Percent Complete:	99.0%
Physical Percent Complete:	99.6%
Authorized Contingency	\$ 66,048,150
Contingency Drawdown	\$ 58,885,488
Contingency Index	1.12



All tunnel work has been completed and the tunnel turned over to the Trackwork Contractor.

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Right of Way

The U District and Roosevelt stations required the acquisition of a range of property interests including fee takings for stations and staging areas; tunnel easements are required for the running tunnel. These acquisitions are complete with the exception of one remaining parcel at the Northgate Station area which was forecast to settle in 2017 but has been moved out to 2018 to accommodate King County's Board schedule. The right-of-way program status is summarized in the following table.

	Total Parcels Certified	Offers Made	Signed Agree- ments	Admin. Settle- ments	Posses- sion and Use (P&U)	Closings to date	Baseline Relocations Required	Relocations Completed
Total	235	233	0	0	0	231	42	42

Community Outreach

- Notified Roosevelt residents new ADA ramp installation and sidewalk replacement in front of their properties
- Met with Northgate Station contractor to discuss upcoming storm work along 1st Ave NE impacting residential driveways and followed up regarding access and notice requirements.
- Distributed various construction alerts:
 - o Roosevelt Station early morning pour
 - o Work at NE 43rd and Brooklyn Ave NE closure
 - Northgate Station girder erection night work and road closure
- Coordinated purchase of Sky Banner at Northgate Mall for parking garage opening and coordinated banner artwork.
- Responded to various calls and email from residents and the public.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Environmental

• None to report.

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Major Construction Contract Packages

Below are the major construction contract packages for the Northgate Link Extension with a brief scope description of each.

N105 Advance Demolition and Site Prep - Demolition of Key Bank Building, removal of underground storage tanks and remediation of contaminated soil at UDS. Demolition site and site prep at strip mall near the NG Station. (Complete)

N111 Advanced Utility Relocation at Northgate Area - Relocation of 26kV and communication lines at the Northgate Station vicinity. (Complete)

N113 115kV Relocation at Northgate Station Area - Relocation of overhead electrical facilities at the Northgate Station area. (Complete)

N125 TBM Tunnels UW Station to Maple Leaf Portal - Tunneling work and support of excavation of station boxes for the U District and Roosevelt stations.

N140 U District Station Finishes - Civil and architectural finishes work for the U District Station.

N150 Roosevelt Station Finishes— Civil and architectural finishes work for the Roosevelt Station.

N160 Northgate Station & Elevated Guideway & Parking Garage- Civil and architectural finishes work for the Maple Leaf Portal, the aerial guideway, and the Northgate Station and Tail Track. Construction of a 450 stall parking garage to be located at the south corner of the existing Northgate Mall surface parking lot at NE 103rd St. near 1st Avenue NE.

N180 Trackwork - Installation of all trackwork through two tunnels and three stations between U District Station and Northgate Station, including tail track.

N830 Track Electrification, Signals, Communication System - Installation of the major system elements – Traction Electrification, 26kV Distribution, Signals, and Communications.

Construction Schedule Highlights

Package	Bid Advertisement	NTP	Substantial Completion
N105-Advance Demolition & Site Prep	Mar 2016A	May 2016A	Nov 2016A
NIII-Advanced Utility Relocation	Sept 2014A	Jan 2015A	Apr 2016A
N113-SCL 115kV Relocate	Feb 2016A	June 2016A	Feb 2017A
N125-Station Box Exc. & TBM Tunnels	Jan 2013A	Sep 2013A	Mar 2018
N140-U District Station Finishes	Oct 2013A (GC/CM-Precon)	April 2017A (construction)	Feb 2020
N150-Roosevelt Station Finishes	Apr 2013A (GC/CM-Precon)	Dec 2016A (construction)	Sep 2019
N160-Northgate Station & Guideway & Parking Garage	Apr 2016A	Sept 2016A	Mar 2020
N180-Trackwork to Northgate Station	Apr 2016A	Sept 2016A	Nov 2019
N830-Traction Power, Signals & Com	May 2015A (GC/CM-RFQ)	Jun 2017A (construction)	Dec 2020

A = Actual

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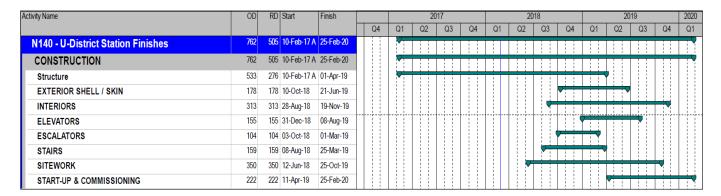
Contract N140 - U District Station Finishes

Current Progress

The N140 Contractor, Hoffman Construction (HCC), continues to progress on the structural work at basement level 2 and has begun stripping formwork on basement level 3. The waterproofing between basement level 1 and 2 is in progress. The X-Strut and waler construction continues. Mechanical and Electrical rough-in is underway at the north and south saddlebags.

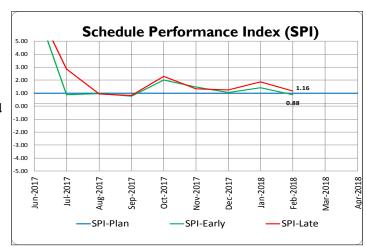
Schedule

The update for February 2018 shows no change in the milestones for the N140 contract. The negative float will be removed upon completion of the change order for the Teamster Strike. The south structure basement level 2 is proceeding with the slab pour scheduled for late March. The center X-Beams and columns have been resequenced in order to gain time within the center section concrete work. The basement level 2 structure is proceeding on schedule and is the current critical path of the N140 contract.



Schedule Performance Index

This period, the SPI early is at 0.88 and the SPI late is 1.16. The early index indicates that the Contractor continues performing slightly behind of plan when compared to the baseline schedule and cashflow.



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Key Activities

Current Period

- Completed stripping the north headwall formwork.
- Completed rebar, formwork and stripping interior wall.
- Continued rebar and MEP rough-in installation on north saddlebag deck area.
- Completed installation of shoring and decking for Xstrut and east and west wales.
- Continued waterproofing along east and west exterior walls.
- Completed stripping formwork from interior and exterior walls.
- Continued rebar installation and MEP rough-in on the south saddlebag deck area.
- Commenced south end shoring installation.
- Continued stripping formwork on interior and exterior walls.
- Continued rebar installation and MEP rough-in on the south saddlebag deck area.

Next Period

- Procurement of long lead materials and equipment will continue.
- Rebar will continue at the basement level 2 invert slabs.
- Complete the falsework set up for the north basement level 2.
- Begin forming, rebar, and rough-in at south basement level 2.
- Exterior wall pour.
- Center concrete work will continue with additional column, X-strut and waler pours.
- Begin work on the saddlebag and exterior walls at the north basement.

Closely Monitored Issues

- The CM team and Contractor have developed mitigation measures to offset impacts from the Teamster Strike that maintain the critical handover dates for the follow on N180 and N830 contractors. These measures are captured in Change Order 004.
- There is a concern that the schedule may be impacted due to the long submittal review cycles. The CM team is working with the design team to improve the submittal review process.

Cost Summary

Present Financial Status	Amount
N140 Contractor - Hoffman Construction	
Original Contract Value	\$159,836,688
Change Order Value	\$100,000
Current Contract Value	\$159,936,688
Total Actual Cost (Incurred to date)	\$36,333,474
Financial Percent Complete:	22.7%
Physical Percent Complete:	23.5%
Authorized Contingency	\$7,991,834
Contingency Drawdown	\$100,000
Contingency Index	18.8



U District Station – Overall station looking south.

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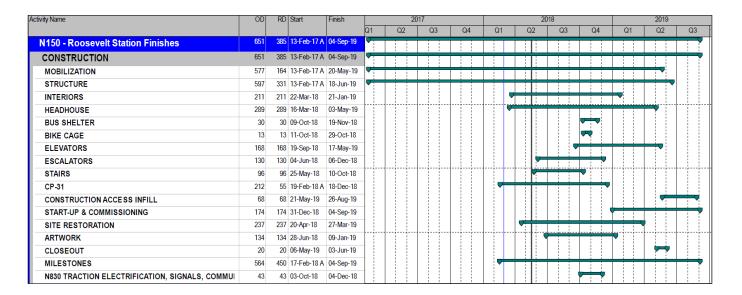
Contract N150 – Roosevelt Station Finishes

Current Progress

Hoffman Construction (HCC) is working steadily toward completion of the station substructure. Crews are forming and placing rebar for the Center walls and Roof. Forming of the perimeter walls is underway. Electrical rough-in at the roof slabs is also in progress.

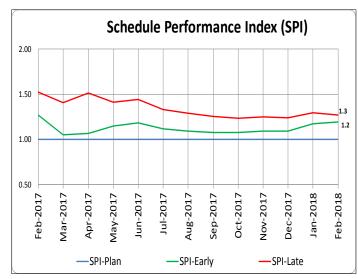
Schedule

The project schedule for February forecasts an on-schedule completion. Hoffman achieved Milestone No. 1B allowing the N180 c\Contractor access to the trainways. This will allow the Trackwork Contractor access to the trainways at the Platform level. The critical path currently runs through the north station surface structure, the north systems rooms, and south headhouse interior finishes, to commissioning.



Schedule Performance Index

This period, the SPI early is at 1.2 and the SPI late is 1.3. The early index indicates that the Contractor continues performing slightly ahead of plan when compared to the baseline schedule, and it is expected to continue this trend next month.



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Key Activities

Current Period

- Achieved Milestone 1B and both train ways were turned over to the N180 Contractor for an early mobilization.
- Removed ramp and wall shoring on the south bound train way.
- Placed concrete on several walls on in the north.
- Continued placement of imbeds and hangers.
- Began shoring and decking for the north roof station.
- Commenced stripping out the basement levels 2 and 3.
- Installed permanent drainage piping.
- Installed temporary lighting and electrical for follow-on work.
- Poured the north half of the center roof.
- Commenced forming and placing rebar for the center walls and roof.

Next Period

- Continue rebar on A-line center wale.
- Place concrete for walls in the north area.
- Continue placing embeds, inserts and sleeves in roof slabs.
- Continue second shift for formwork installation and removal.
- Begin pouring the south half of the roof.

Closely Monitored Issues

- Contractor submitted RFC 006- Notice of Impact of Concrete Supply time impact analysis requesting \$0 and 12 additional calendar days to the critical path milestones. HCC revised time impact analysis to CM and ST for review. A request for 12 days to Milestone 1A and 9 days for Milestone 3 has been reviewed by CM and ST and CCB review is scheduled for February 2018.
- Design has received comments back from Sound Transit on a draft of CNWD 013A for added escalator control room. Corrections are being incorporated by design and expected to be complete this month.

Cost Summary

Present Financial Status	Amount
NI50 Contractor - Hoffman Construction	
Original Contract Value	\$ 152,291,184
Change Order Value	\$1,269,477
Current Contract Value	\$ 153,560,661
Total Actual Cost (Incurred to date)	\$ 56,142,206
Financial Percent Complete:	36.6%
Physical Percent Complete:	31.6%
Authorized Contingency	\$ 7,614,559
Contingency Drawdown	\$ 1,269,477
Contingency Index	1.7



RVS view of south area activity.

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Contract N160 - Northgate Station, Elevated Guideway, and Parking Garage

Current Progress

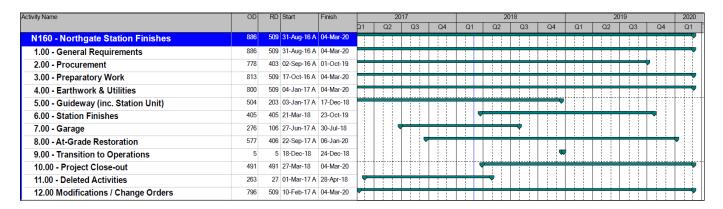
The N160 Contractor, Absher, is continuing with primarily with structural work. At the station, work includes post-tensioning of the station columns and placement of the platform slabs. North of the station the track slabs and closure slabs are being formed and poured. The final girder erection north of the station was completed. Girder erection south of the station in Unit 3 is in progress, along with column caps in Units 1 and 2.

In the Garage, the Delay Strips on Levels B2 and B3 are stripped and re-shored. The basement level 1 north deck was poured, and rebar is being placed at the south deck. The communications/electrical rooms on the basement level 4 also started at the end of February.

Detention Vault FC-3 has been completed and backfilled. Storm drainage at the North TPSS site has also been completed.

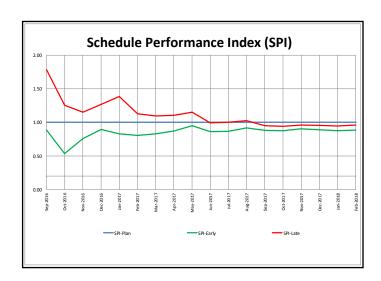
Schedule

The project schedule for February shows 5 days of negative float to Substantial Completion, but does not forecast any additional slippage. However, some interim milestones continue to slip, including Milestone 3 - Systems Access at the garage. In order to mitigate the slippage, Absher has started on key rooms as identified through the Coordinated Installation Plan (CIP) process. The critical path remains in the station structure and station finishes, in particular the installation of the escalators.



Schedule Performance Index

This period, the SPI early is at 0.89 and the SPI late is at 0.96. The early index indicates that the contractor continues performing slightly behind plan when compared to the baseline schedule, but it is improved over the last period's index of 0.85.



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Key Activities

Current Period

- General Project Progress: Continued processing and reviewing of submittals and RFIs; held Readiness Review meeting for One-sided Forming, Masonry, Plumbing, Emergency Walkway, Cable Handrail, Acoustical Panels, and Fire Suppression System; held onsite lessons-learned meeting at Angle Lake P&R.
- Guideway Substructure/Superstructure: Continued rebar and concrete placement for columns and caps on A and B lines. Continued falsework, rebar, PT and concrete placement for A- and B-line spans, plinths, diaphragms, track slabs, handrail stanchions, and curbs. Set girders on A and C lines. Continued tensioning and grouting PT tendons. Completed repair on Span 6 girders.
- Station: Continued forming and installing rebar and PT tendons for deck and mezzanine beams. Continued tensioning PT in columns. Placed span C3 platform slab.
- Parking Garage: Continued conduit, PT and rebar installation for level B1. Completed exterior walls at level B1.
 Continued plumbing and electrical rough-in at lower levels. Stripped and re-shored level B3.
- *Utility & Drainage Work:* TESC Maintenance ongoing. Completed excavation, placed walls and sloped invert, and set lid at FC3 vault and backfilled.
- Offsite Fabrication: Ongoing fabrication—girders, structural steel, drainage structure precast segments and elevators.

Next Period

- General Project Process: Continue processing and reviewing of submittals and RFIs. Elevators Factory tour/inspection for garage equipment
- Guideway Substructure/Superstructure: Continue formwork, rebar and concrete placement for columns/caps. Continue B-line track slabs and girders. Continue placing overhang brackets, walkway and edge forms, plinths, and intermediate diaphragms.
- *Station:* Continue decking platform spans and rebar/PT/ embeds in deck and beams.
- *Parking Garage:* Continue wall and column rebar and concrete placement. Complete level B1 deck. Continue plumbing and electrical installation.
- *Utility & Drainage Work:* Continue piping and manholes associated with FC-3 vault and jurisdictional ditch.

Closely Monitored Issues

- Schedule slippage on elevated structure and garage, largely due to labor shortages. Contractor revised schedule logic to have concurrent work to mitigate this issue.
- Elevator delivery and installation for parking garage is critical visit to manufacturer is planned for April. Girders at Span 6 had insufficient clearance to allow for expansion joint. Repair plan was accepted and work is underway to sawcut and jack the girders to correct.
- Ethernet switches delivered to site have a potential UL-Listing issue which is under review.

Cost Summary

Present Financial Status	Amount	
N160 Contractor - Absher Construction		
Original Contract Value	\$	174,000,000
Change Order Value	\$	4,232,558
Current Contract Value	\$	178,232,558
Total Actual Cost (Incurred to date)	\$	85,373,778
Financial Percent Complete:		47.9%
Physical Percent Complete:		46.1%
Authorized Contingency	\$	17,400,000
Contingency Drawdown	\$	4,232,558
Contingency Index		1.90



FC-3 vault adjacent to guideway

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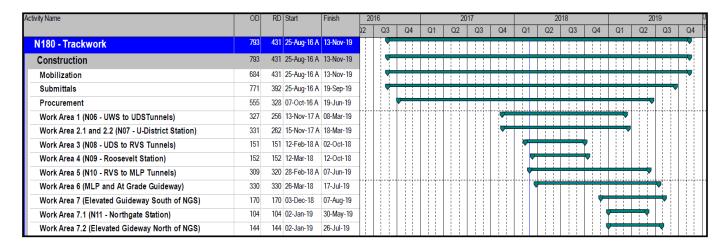
Contract N180 - Trackwork UWS to Northgate Station

Current Progress

The N180 Contractor, Stacy and Witbeck, Inc. has begun mobilizing at UDS in preparation for installation of the floating slab segments. The Ultra-Straight Rail (USR) is being produced at the British Steel facility in France and is set to ship at the beginning of January by sea to Vancouver B.C. The pre-cast yard in Woodland, WA continues in production casting of the 3'10" slabs at a rate of 40/week. The 7'10" slabs are also in production status. Testing is the isolation pads is expected to be completed in early January. The N180 Contractor has been meeting with the N140, N160, and N150 contractors to work on the interface and access coordination at the station locations.

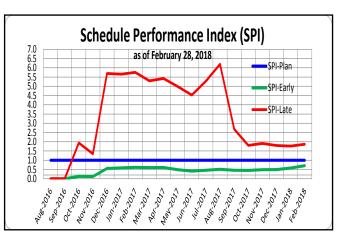
Schedule Summary

The N180 schedule for February continues to forecast late achievement of Milestones 7a, 7c, and 7d, by 1, 15 and 13 days, respectively. The critical path is driven by the delivery of rail, and subsequent setup of the rail welding plant. The USR will be welded first, followed by the standard rail. Construction of the track between UDS and RVS, then RVS to MLP, followed finally by the trackwork at Northgate Station, makes up the critical path.



Schedule Performance

This period the SPI early is at 0.49. The Contractor, Stacy and Witbeck, continues to perform ahead of the late schedule SPI 1.80 and behind the early schedule SPI 0.49. Performance in between the curves is normally what is expected. Due to late access to the tunnel, the Contractor is behind the baselined schedule, but continues to meet their goals for early work such as material procurement and fabrications.



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Key Activities

Current Period

- Columbia Precast Products continued casting floating slabs. Total cast to date: 3'-10": Approximately 78%; 7'-10": Approximately 40%.
- Greenbush completed calibration testing of existing floating slabs in Capitol Hill.
- Scougal Rubber Corporation continued fabrication of 5Hz isolation pads.
- First deliveries of standard, high-strength, and Ultra Straight rail began at Maple Leaf Portal (MLP) site.
- American Concrete Company continued invert scarification for future support surface and plinth work.
- Stacy and Witbeck crews continued cleaning and prepping tunnel invert and installing and setting rebar for future floating slab support surfaces.
- Sundancer Electric completed installation of EMI conduit extensions in both tunnels.
- Liberty Electric crews completed installing and splicing 26kV cable in northbound tunnel cable trench.

Next Period

- Continue rail deliveries at MLP.
- Begin installing and splicing 26kV cable in southbound tunnel.
- Begin concrete pours for 30-ft UWS track tie in and demonstration section in northbound tunnel.
- Continue surface roughening for floating slabs.
- Sundancer Electric will be switching over lights and hooking up temporary power to permanent distribution.

Closely Monitored Issues

• ST CM and RE have been working with ST Operations on a location to store 100 sticks of 80' rail required by the contract as spares. A suitable location has yet to be determined. The project is approximately 2 weeks out before the rail will need to be delivered to the MLP.

Cost Summary

Present Financial Status	Amount
N180 Contractor - Stacy and Witbeck, Inc.	
Original Contract Value	\$ 71,455,950
Change Order Value	\$ 2,764,642
Current Contract Value	\$ 74,220,592
Total Actual Cost (Incurred to date)	\$ 22,819,593
Financial Percent Complete:	30.7%
Physical Percent Complete:	30.7%
Authorized Contingency	\$ 10,718,393
Contingency Drawdown	\$ 2,764,642
Contingency Index	1.17



Liberty Electric loading a spool of 26kV with the Altec cable handler, at the MLP site, and transporting it into the tunnel to be installed.

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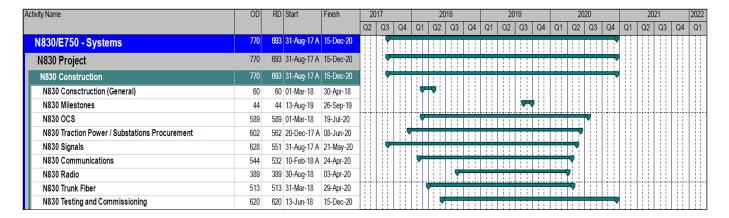
Contract N830 - Northgate Link Systems, Heavy Civil GC/CM

Current Progress

The N830 Contractor, Mass Electric continues to focus on engineering efforts, including the design of communications, radio and signaling systems. The work at Convention Place Station, performed as a Provisional Sum, is essentially complete. At UDS, the EMI cable installation is mobilizing to start in April, in conjunction with the installation of the floating slabs. Mass continues to participate successfully in Coordinated Installation Plan meetings.

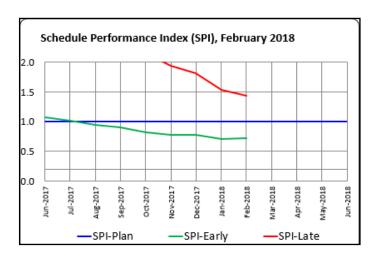
Schedule Summary

The N830 schedule for February forecasts an on-time completion of the work, at the end of December 2020. There was no change in contract milestones in February. The schedule for Northgate does not exhibit a traditional critical path within the overall CPM schedule. The key installation sequences with less than 5 days of float are pulling and terminating the 26kV cabling at UDS and RVS, Communications installations at NGS, installation of the Medium Voltage Supply (MVSS) at Northgate, and the Switchgear at UDS.



Schedule Performance

This period, the SPI early is at 0.73 and the SPI late is at 1.43. The Contractor (Mass Electric) continues to perform ahead of the late schedule SPI 1.43 and behind the early schedule SPI 0.73 in comparison to the baseline work plan. Most of the Contractor's work has been focused in procuring subcontractor packages and preparing engineering submittals. Once the majority of subcontractor packages are secured and the engineering submittals are progressed, the schedule will align more with the baseline schedule.



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Key Activities

Current Period

- Ongoing Procurement for Signal and Communication materials fabrication and installation.
- Ongoing development and reviews of engineering submittals covering all disciplines: TPSS, OCS, TCS/ Signals, and Communications.
- Ongoing meetings held between Systems and Civil Contractors to discuss and coordinate interface/access points for respective contracts.
- Ongoing work on EMI procurement, submittals, and work plans in preparation for the EMI installation work.

Next Period

- Continued Procurement for Signal and Communication materials fabrication and installation.
- Continued development and reviews of engineering submittals covering all disciplines: TPSS, OCS, TCS/ Signals and Communications.
- Continued meetings held between Systems and Civil Contractors to discuss and coordinate interface/access points for respective contracts.

- Continued work on EMI procurement, submittals, and work plans in preparation for the EMI installation work scheduled to begin in April.
- The first Partnering session with the Contractor (Mass Electric), the CMC (Mott MacDonald), and Sound Transit scheduled for March 7, 2018. The primary purpose of the meeting is to collaboratively identify areas of concern and establish a "Partnering Charter" in managing the Northgate and East Link Systems contract.

Closely Monitored Issues

 CMC and ST continues to closely monitoring the prolonged procurement packages to ensure the process is progressed and does not impact upcoming work activities.

Cost Summary

Present Financial Status	Amount	
N830 Contractor - Mass Electric Construction Co.		
Original Contract Value	\$ 104,660,444	
Change Order Value	\$ 94,934	
Current Contract Value	\$ 104,755,378	
Total Actual Cost (Incurred to date)	\$ 11,925,922	
Financial Percent Complete:	11.4%	
Physical Percent Complete:	12.9%	
Authorized Contingency	\$ 5,233,022	
Contingency Drawdown	\$ 94,934	
Contingency Index	7.1	

^{*} The N830 and E750 Systems is a joint procurement of Northgate Link and East Link, respecively. The Financial Status table above represents the N830 Systems only.

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Link Light Rail Lynnwood Link Extension



Scope

Limits: North Seattle to Shoreline, Mountlake

Terrace, and Lynnwood Transit Center

Alignment: Lynnwood Link extends light rail 8.5

miles to Snohomish County along I-5 from Northgate Mall in Seattle to the Lynnwood Transit Center, with four new light rail stations. The configuration includes at-grade, elevated, and

retained cut/fill alignment.

Stations: Shoreline South/145th, Shoreline

North/185th, Mountlake Terrace,

Lynnwood City Center

Systems: Signals, traction power, and communi-

cations (SCADA).

Budget: \$488.4 Million Pre-baseline Budget;

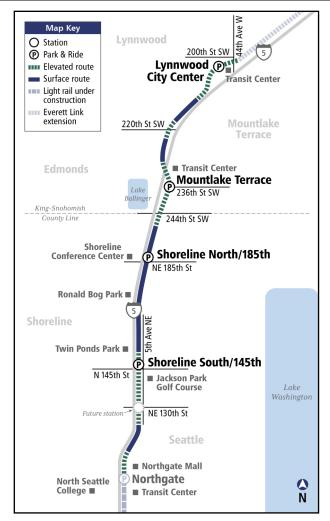
excludes Construction (Year of Ex-

penditure Dollars)

Phase: Final Design

Const. Starts: 2018

Service: Mid 2024



Map of Lynnwood Link Extension Alignment.

Key Project Activities

- L200 60% civil design submitted in February 2017; reviews completed in March 2017.
- L300 60% civil design submitted in March 2017; reviews completed in April 2017.
- L800 60% systems design submitted in June 2017; reviews completed in August 2017.
- Design advancement paused in July 2017 to pursue cost reduction strategies. Conducted cost reduction reviews with 3rd party jurisdictions in September 2017. Resumed design activities in October 2017, and currently working to incorporate cost savings ideas into design.
- Temporary Construction Airspace Leases and Permanent Airspace Leases (TCAL/ASL) with WSDOT executed in February 2018.
- Continuing right-of-way acquisition and pre-construction planning.

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Link Light Rail Lynnwood Link Extension

Project Cost Summary

The Lynnwood Link project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

Commitment and Actuals under Construction Phase is related to Construction Permits for early demolition work associated with ROW Property Acquisitions.

Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$88.3	\$21.0	\$20.9	\$88.3	\$0.0
Preliminary Engineering	\$42.0	\$39.1	\$39.1	\$42.0	\$0.0
Final Design	\$111.5	\$82.8	\$56.3	\$111.5	\$0.0
Construction Services	\$104.9	\$19.6	\$9.2	\$104.9	\$0.0
3rd Party Agreements	\$17.4	\$7.0	\$3.6	\$17.4	\$0.0
Construction	\$67.6	\$0.6	\$0.3	\$67.6	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$235.7	\$86.3	\$79.6	\$235.7	\$0.0
Total	\$667.3	\$256.4	\$208.9	\$667.3	\$0.0

Cost Summary by SCC

SCC Element	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$30.4	\$0.5	\$0.2	\$30.4	\$0.0
50 Systems	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Subtotal (10 - 50)	\$30.4	\$0.5	\$0.2	\$30.4	\$0.0
60 Row, Land	\$235.7	\$86.3	\$79.6	\$235.7	\$0.0
80 Professional Services	\$361.6	\$169.6	\$129.1	\$361.6	\$0.0
90 Unallocated Contingency	\$39.7	\$0.0	\$0.0	\$39.7	\$0.0
Total (10 - 90)	\$667.3	\$256.4	\$208.9	\$667.3	\$0.0

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Link Light Rail Lynnwood Link Extension



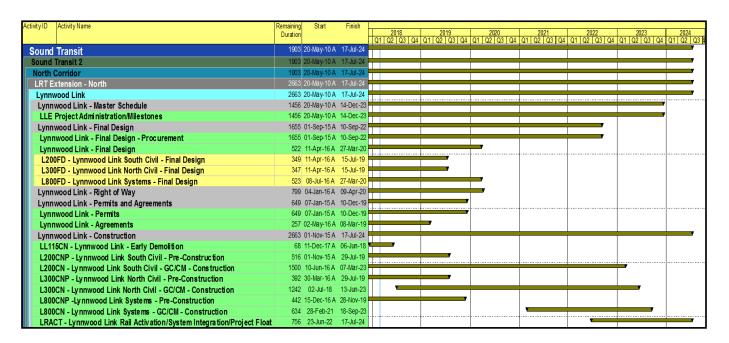
Risk Management

The Lynnwood Link Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast.

The last Lynnwood Link Quarterly Risk Review Workshop was held in May 2017. The project completed a full quantitative risk assessment workshop in November 2017, and received draft results in January 2018. The next Lynnwood Link Quarterly Risk Review Workshop will be held in early March 2018.

Project Schedule

The project schedule is shown below. Currently, the design team is working on the in-progress 90% submittal due in early April 2018. The project is anticipated to be baseline in 2nd QTR 2018. Civil Early Work is scheduled to begin in the 1st QTR 2019. The forecast revenue service date is mid-2024.



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Link Light Rail Lynnwood Link Extension Final Design

Right-of-Way

The Right-of -Way project for Lynnwood Link involves the acquisition of a range of property interests which includes compensable (e.g. fee acquisitions, guideway easements, permanent and temporary construction easements) and non-compensable rights (e.g. rights of entry). These acquisitions will result in owner and tenant residential and commercial relocations. The right-of-way program status for this period is summarized in the following table.

Lynnwood Link Extension Property Acquisition Status								
Line Section	Board Ap- proved	Offers Made/In Negotia- tions	Signed Agree- ments	Posses- sion and Use	Admin Settle- ment	Closings to date	Reloca- tions Required	Parcels Vacated
L200– South Segment	226	77	1	0	0	52	193	90
L300—North Segment	56	13	0	1	0	10	30	7
Total*	282	90	1	1	0	62	223	97

^{*}Note- number of totals may differ from other reports due to the timing of reporting periods.

L200 -Northgate to NE 200th Street Parcels

18 additional parcels approved by the Board; 1 additional Offer signed; 1 additional relocation identified; 1 additional relocation vacated.

L300- NE 200th Street to Lynnwood Transit Center

1 additional parcel approved by the Board; 1 additional relocation vacated.

Sound Transit Board Actions

Board Action	Description	Date
M2018-23	Authorizing the chief executive officer to execute an amendment to the Construction Services Agreement between Sound Transit and the City of Seattle to provide construction assistance and construction services for the Lynnwood Link Extension	Feb 22
R2018-03	Authorizing the chief executive officer to acquire certain real property interests, including acquisition by condemnation to the extent authorized by law, and to reimburse eligible relocation and reestablishment expenses incurred by affected owners and tenants as necessary for the Lynnwood Link Extension	Feb 22

Community Outreach

- Attended weekly field work coordination meetings and updated field work outreach activity list.
- Distributed flyers for upcoming potholing work in Seattle and Shoreline Right-of-Way.
- Fielded calls from residents along the corridor regarding field work and construction inquiries and property acquisitions.
- Called property owners/tenants regarding upcoming geo work and clearing.

Environmental

None to report.

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Link Light Rail Lynnwood Link Extension Final Design - Civil



Civil Final Design Overview

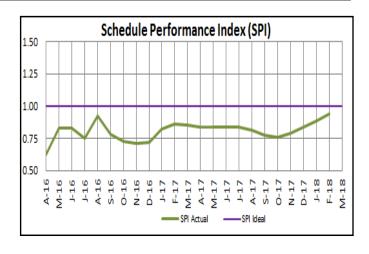
Sound Transit executed a professional services contract with HNTB Jacobs in April 2016 to perform Civil Final Design Services.

Civil Final Design Activities

- Cost Savings Ideas Development completed.
- Civil Final Design activities restarted on October 9, 2017.
- Current focus is on incorporating costs savings ideas, advancing concepts to achieve concurrence and lock the track
 alignment and guideway column locations so follow on disciplines (Systems Final Design) can resume design activities.

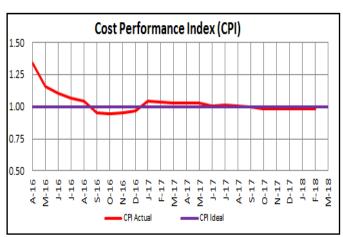
Civil Final Design Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 0.94 through February 2018, which means that cumulative work accomplished is less than work originally planned. The Civil Final Design cost savings ideas development was completed in October 2017. Schedule performance is trending positive and it is expected to increase over the next couple of reporting periods as civil design activities have restarted and cost savings ideas will be incorporated into the project design.



Civil Final Design Cost Performance Index

\$52.5M of the total contract amount, 73%, has been spent through February 2018. The Civil Final Design percent complete is 72%, with an earned value of \$51.8M. The cumulative Cost Performance Index (CPI) through February is 0.98 indicating that expenditures are slightly higher than the earned value of work performed.



Final Design Performance	Cumulative To-date
Amount Invoiced	\$52.5M
% Spent	73%
Earned Value	\$51.8M
% Complete	72%
SPI	0.94
СРІ	0.98

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Link Light Rail Lynnwood Link Extension Final Design - Systems

Systems Final Design Overview

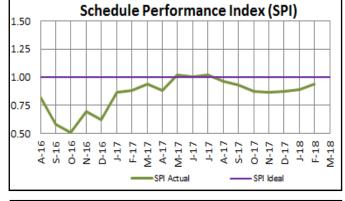
Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform Systems Final Design Services.

Systems Final Design Activities

- L800 60% cost estimate submitted to Sound Transit on August 25, 2017.
- L800 60% cost estimate reconciliation was completed on September 27, 2017.
- Systems Design activities resumed in October 2017 to support the Civil design evaluation and cost reduction strategies.

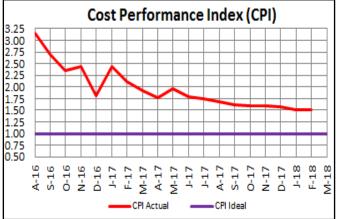
Systems Final Design SPI

The cumulative Schedule Performance Index (SPI) trends at 0.94 through February 2018, which means that cumulative work accomplished is behind the work originally planned. This is directly attributed to the design hold due to cost savings ideas development. As the Systems Final Design team is provided updated civil information, it is expected that SPI will start to trend positive as design ramps back up.



Systems Final Design Cost Performance

\$3.3M of the total contract amount, 35%, has been spent through February 2018. The Systems Final Design percent complete is 53%, with an earned value of \$4.9M. The cumulative Cost Performance Index (CPI) through February is 1.50 indicating that expenditures are significantly lower than the earned value of work performed.



Final Design Performance	Cumulative To Date
Amount Invoiced	\$3.3M
% Spent	35%
Earned Value	\$4.9M
% Complete	53%
SPI	0.94
СРІ	1.50

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Link Light Rail Lynnwood Link Extension Construction Mgmt - Civil



Civil Construction Management Overview

Sound Transit executed a professional services contract with PGH Wong in May 2016 to perform Civil Construction Management (CMC) Services

Civil Construction Management Activities

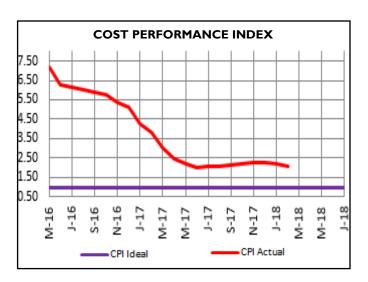
- Coordinating meetings with design, GC/CM, and ST teams.
- Coordination on various preconstruction activities including cost estimates, schedule, and constructability.
- Coordinating GC/CM in preparation of IP-90% design package

Civil Construction Management Schedule Performance Index

Work by the CMC is on a level-of-effort basis to support Sound Transit during the final design/pre-construction period. Earned value for level-of-effort is calculated as equal to the planned value, so SPI = 1.00.

Civil CM Cost Performance Index

\$3.6M of the total contract amount, 48%, is spent through February 2018, with an earned value of \$7.5M. The cumulative Cost Performance Index (CPI) is 2.08; indicating significantly lower costs than expected on the contract. The Consultant assumed more support staff would be required early in the schedule and that has not been the case, leading to a high CPI. Phase 2 of the contract will be implemented in 2018 generating a new plan.



Civil CM Performance	Cumulative To-date
Amount Invoiced	\$3.6M
% Spent	48%
Earned Value	\$7.5M
СРІ	2.08

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Link Light Rail Lynnwood Link Extension GC/CM Pre-Construction

GC/CM Pre-Con Overview - L200 Northgate to NE 200th Street

Sound Transit executed a professional services contract with Stacy & Witbeck Kiewit Hoffman in June 2016 to perform GC/CM Pre-Construction Services for the L200 segment.

L200 GC/CM Pre-Con Activities

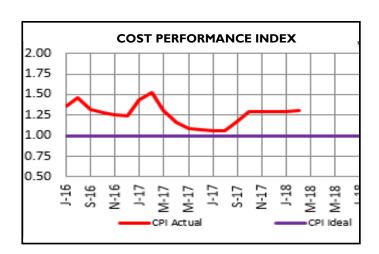
- Coordinating meetings with design, CM, and ST teams.
- Progress on various preconstruction activities including cost estimates, schedule, and constructability.
- Project wide effort towards value engineering.

L200 GC/CM Pre-Con Schedule Performance Index

Driving the L200 GC/CM Contract is the LLE Final Design contract; GC/CM Pre-Construction work is on a level-of-effort basis to support Sound Transit during the final design/pre-construction period. Earned value for level-of-effort is calculated as equal to the planned value, so SPI = 1.00.

L200 GC/CM Pre-Con Cost Performance Index

\$3.0M of the total contract amount, 59%, is spent through February 2018, with an earned value of \$3.9M. The cumulative Cost Performance Index (CPI) is 1.30; indicating actual costs are lower than planned. Planned Values will be re-aligned with an extension to the Pre-Construction Schedule; CPI is anticipated to trend closer to 1.0 in the future.



L200 GC/CM	Cumulative To-date
Amount Invoiced	\$3.0M
% Spent	59%
Earned Value	\$3.9M
СРІ	1.30

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Link Light Rail Lynnwood Link Extension GC/CM Pre-Construction



GC/CM Pre-Con Overview - L300 NE 200th St. to Lynnwood Transit Center

Sound Transit executed a professional services contract with Skanska in October 2016 to perform GC/CM Pre-Construction Services for the L300 segment.

L300 GC/CM Pre-Con Activities

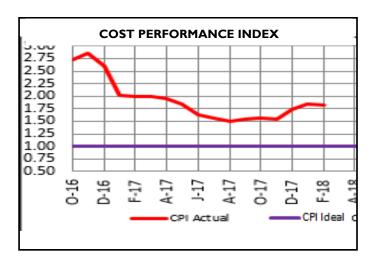
- Coordinating meetings with design, CM, and ST teams.
- Progress on various preconstruction activities including cost estimates, schedule, and constructability.
- Project wide effort towards value engineering.

L300 GC/CM Pre-Con Schedule Performance Index

Driving the L300 GC/CM Contract is the LLE Final Design contract; GC/CM Pre-Construction work is on a level-of-effort basis to support Sound Transit during the final design/pre-construction period. Earned value for level-of-effort is calculated as equal to the planned value, so SPI = 1.00.

L300 GC/CM Pre-Con Cost Performance Index

\$2.4M of the total contract amount, 45%, has been spent through February 2018, with an earned value of \$4.3M. The cumulative Cost Performance Index (CPI) is 1.81; indicating actual costs are lower than planned. Planned Values will be re-aligned with an extension to the Pre-Construction Schedule; CPI is anticipated to trend closer to 1.0 in the future.



L300 GC/CM Performance	Cumulative To-date
Amount Invoiced	\$2.4M
% Spent	45%
Earned Value	\$4.3M
СРІ	1.81

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Link Light Rail I-90 Two-Way Transit & HOV Operations (Stage 3)



Scope: The I-90 Two-Way Transit and HOV Operations (Stage 3) project provides approximately four miles of HOV lanes in each direction of the outer roadway between 80th Avenue South on Mercer Island and Rainier Avenue in Seattle. The project includes upgrades and retrofits to the fire, life, safety, and other systems in the Mount Baker and Mercer Island/First Hill tunnels. The project also includes remaining dowel bar retrofit work on the west side of Lake Washington, and the installation of screening on the shared–use pathway on the I-90 floating bridge.

Budget: \$225.6 Million

Phase: Construction **Construction Start:** January 2015

Construction Complete: First Quarter 2018



Since June 2017, the project has provided 24/7 HOV access on I-90 between Seattle, Mercer Island and Bellevue.

Major Contracts

	Scope	Agreement/Contract Amount
WSDOT	Final Design	\$ 20,942,000
WSDOT	CM Services	\$ 16,358,000
IMCO	Construction	\$122,021,000

Key Project Activities

- Work outside the tunnels: Investigation and repair of lighting outages, install new irrigation controller at Rainier Ave south on-ramp, continue on training simulator training demo at Traffic Management Center, continue to update and track equipment warranty list, continue resolving punch list, & clean up and demobilize from remaining work areas.
- Mercer Island Tunnel: Continue to track warranty and equipment lists, cleanup and warranty work, continue remaining punch list items.
- Mount Baker Ridge Tunnel: Continue to track warranty and equipment lists, cleanup work sites, continue remaining punch list items.
- SCADA: Continue tracking equipment warranty lists; trouble shoot and repair SCADA workstation; simulator training demo.
- Simplex: Continue receiving final Simplex documentation submittals, and continue resolving punch list.

Closely Monitored Issues

While the center roadway turnover to Sound Transit was completed on schedule, Substantial Completion continues to slip; achievement of Substantial Completion is anticipated for 1st Quarter 2018, due to the following:

Challenges continue with network programming tasks for Phase 3 commissioning and Simplex / SCADA video interface and integration. Additional testing is required.

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Link Light Rail I-90 Two-Way Transit & HOV Operations (Stage 3)

Project Cost Summary

The following tables summarize the cost information for the I-90 Two- way Transit and HOV Operations (Stage 3) project. WSDOT has been several months trailing on their invoice submittal and with a combination of ongoing resolution of commercial issues, has resulted in overstating of cost accrual for previous periods. This current period with better information, the monthly expenditure was \$584.3K. Tables in millions.

Cost Summary by Phase

Project Elements by Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Final Cost	
Administration	\$3.6	\$3.6	\$2.2	\$2.2	\$3.6	\$0.0
Preliminary Engineering	\$1.5	\$1.5	\$1.5	\$1.5	\$1.5	\$0.0
Final Design	\$22.1	\$22.I	\$18.7	\$18.0	\$22.1	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction	\$198.3	\$198.3	\$171.9	\$163.1	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$194.4	\$184.9	\$225.6	\$0.0

Cost Summary by SCC

Project Elements by SCC	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	nent to Incurred Final Cost		Author- ized Allo- cation vs. EFC
40 Sitework & Special Conditions	\$180.6	\$180.6	\$171.9	\$163.1	\$180.6	\$0.0
80 Professional Services	\$26.3	\$26.3	\$22.5	\$21.8	\$26.3	\$0.0
90 Unallocated Contingency	\$18.7	\$18.7	\$0.0	\$0.0	\$18.7	\$0.0
Project Total (SCC 10-90)	\$225.6	\$225.6	\$194.4	\$184.9	\$225.6	\$0.0

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Cost Contingency Management

In the table below, the Allocated Contingency includes both WSDOT-controlled construction contingency and the total ST-controlled allocated contingencies.

	Bas	eline	Current		
Contingency Status	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$0.0	0.0%	\$0.0	0.0%	
Allocated Contingency	\$17.0	7.5%	\$8.0	19.7%	
Unallocated Contingency	\$18.7	8.3%	\$18.7	45.9%	
Total	\$35.7	15.8%	\$26.8	65.6%	

Note: Table in millions. Contract does not carry Design Allowance.

Contingency % of Work Remaining based on Contingency Remaining as a % Budget Remaining. Allocated contingency includes a portion of WSDOT-controlled contingency & ST-controlled Contingency.

Project Schedule

Project Milestones for construction are indicated below; forecast dates were submitted by WSDOT as anticipated dates, but have not at this time been accepted. Ongoing negotiations between WSDOT and the contractor to resolve commercial issues has pushed the forecast Substantial and Physical Completion dates into 2nd QTR 2018.

Contract	Final Tunnel Commissioning Complete		Substantial Completion			Roadway lover	Physical Completion		
LOO Tive Way Transit & LIOV	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	
I-90 Two-Way Transit & HOV Operations Stage 3	2/16/2017	Q1/2018	2/20/2017	Q2/2018	5/31/2017	6/14/2017 A	5/31/2017	Q2/2018	

Changes from previous update are indicated in RED; A indicates Actual



Jet fan MCC electrical controls, Mt. Baker Ridge Tunnel

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Link Light Rail East Link Extension



Scope

Limits/Alignment: Fourteen-mile extension from

Downtown Seattle to Mercer Island, Bellevue and the Overlake area of Redmond. The extension includes 10 stations along the alignment that includes at-grade, elevated, bridges, new and retro-

fitted tunnels.

Stations: Judkins Park, Mercer Island, South Belle-

vue, East Main, Bellevue Downtown, Wilburton, Spring District/120th, Bel-Red/130th, Overlake Village and Redmond Technology Center (RTC).

Systems: Signals, traction electrification, and

communications (SCADA).

Budget: \$3.677 Billion (Baseline April 2015)

Schedule: Revenue Service - June 2023

Phase: Construction



Map of East Link Extension Alignment.

Key Project Activities

Seattle to South Bellevue

- Floating Bridge Retrofit: Installation of Post Tensioning duct, continued installation of watertight doors; erection of post tensioning reaction frames; ongoing electrical power modifications; continued scanning and coring.
- *Mercer Island:* Ongoing utility work, sound wall and foundation construction, head house construction for Mercer Island Station; concrete restoration and dowel bar retrofit; installation of tunnel conduit & lighting.
- D2 Structure & Mt. Baker Tunnel: Continue structure as-built and scanning; continue core drilling for Pier 2 micropile installation and footing; ongoing installation of tunnel conduit & lighting.

South Bellevue to Redmond

- E320 South Bellevue: Continued forms, installed rebar and placed concrete for shaft columns throughout the segment; continued coordination of utility relocation work with private utility companies; continued deep soil mixing to improve ground conditions.
- *E330 Downtown Bellevue Tunnel:* Completed excavation of enlarged section. Approximately 1,312 total feet of excavation has been completed to date of which about 124 feet was accomplished in this period. Completed installation of PVC drainpipe and wheel stops on level P3 of the Skyline Building.
- E335 Downtown Bellevue to Spring District: Commenced falsework installation for the long span over I-405 with lane closures for subgrade preparation and bent placement. Executed change order for the stations packages.
- E340 Bel-Red: Eight out of eleven crossbeam pours are completed and storm drains installations are complete along the west tributary Kelsey Creek wetland. Completed removal of all existing overhead lines along 136th Ave
- E360 SR520 to Redmond Technology Center: Design Systems continues IFC validation, IFC submitted for RTC Facilities, OVS Ped Bridge in IFC development. Construction Drilled shaft work continues along the aerial guideway. Backfill completed for Park Place detention vault. Installation of soil nail walls along SR 520.
- *E750 Systems:* Contractor continues with critical submittal, components, and product designs. Continues Systems and Civil Contractors coordination of interface and access points for respective contracts.

Closely Monitored Issues

- Completing remaining property acquisitions and easements.
- Timely submissions and issuance of construction permits.
- With ongoing construction in all segments, construction safety and environment compliance are priorities.
- Unidentified commercial utility connections within roadways and private properties continues to be challenging.

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Link Light Rail East Link Extension

Project Cost Summary

The East Link project cost is summarized below in two cost categories: 1) the first table is summarized in accordance with Sound Transit's Work Breakdown Structure (WBS); 2) the second table summarizes cost in accordance with the FTA's Standard Cost Category (SCC) format. The Estimated Final Cost (EFC) continues to be projected at approximately \$3.77B. This period's expenditure is about \$51M, pushing the total project cost from \$1.07B to \$1.12B. Project commitments rose to about \$3B (previous period \$2.82B) predominantly due to the station packages amendment to E335.

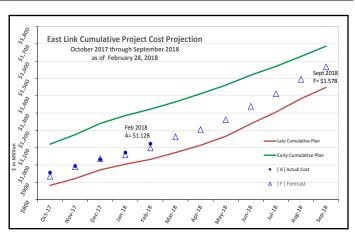
Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date Estimated Final Cost (EFC)		Author- ized Allo- cation vs. EFC
Administration	\$186.2	\$186.2	\$67.7	\$67.6	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.8	\$54.7	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$245.1	\$203.4	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$196.8	\$49.6	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$38.3	\$15.5	\$52.1	\$0.0
Construction	\$2,544.3	\$2,544.3	\$2,132.9	\$477.2	\$2,544.3	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$298.2	\$298.2	\$261.5	\$255.2	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$2,997.1	\$1,122.9	\$3,677.2	\$0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$744.6	\$949.7	\$881.4	\$228.0	\$964.3	(\$15.6)
20 Stations	\$397.7	\$474.2	\$431.9	\$63.7	\$470.4	\$2.9
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$808.5	\$568.3	\$453.9	\$153.3	\$596.9	(\$26.7)
50 Systems	\$353.8	\$367.9	\$344.4	\$25.5	\$328.6	\$39.4
Construction Subtotal (10 - 50)	\$2,304.6	\$2,360.1	\$2,111.6	\$470.5	\$2,360.2	\$0.0
60 Row, Land	\$288.5	\$288.5	\$261.5	\$255.2	\$288.5	\$0.0
70 Vehicles (non-revenue)	\$2.8	\$2.8	\$0.0	\$0.0	\$2.8	\$0.0
80 Professional Services	\$898.4	\$889.1	\$624.1	\$397.2	\$889.1	\$0.0
90 Unallocated Contingency	\$182.9	\$136.6	\$0.0	\$0.0	\$136.6	\$0.0
Total (10 - 90)	\$3,677.2	\$3,677.2	\$2,997.2	\$1,122.9	\$3,677.2	\$0.0

The East Link cost projection continues to progress within the planned expenditure as construction activities continue to pickup. This period's project expenditure topped out at approximately \$51M where Construction Phase is responsible for over 90% or approximately \$46M of February's expenditure. Total project cost incurred to date approaches \$1.12B to which about \$447M was recorded in the Construction Phase. The project cost continues to pick up and is currently predicted to increase to the \$1.6B level by September 2018, reflecting a continued active construction activities through spring and summer.



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Link Light Rail East Link Extension



Risk and Contingency Management

Risk Management

The Risk Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. Sound Transit (ST) continuously monitors project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast. This period, ST commenced the quarterly risks update for each of the major contract packages. ST included participation of construction management consultants and construction contractors in its risks management program.

Contingency Status

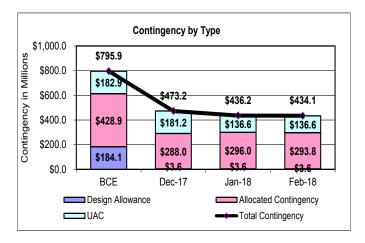
East Link project budget was baselined on April 2015 with a total contingency of \$795.9M. At the end of February 2018, all major construction contracts have been procured, the total contingency balance stands at \$434.1M (previously \$436.2M). The current contingency balance is consistent with the project's planned contingency drawdown.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA is unchanged this period with a balance at \$3.6M and is expected to be fully drawn when all construction scope are executed.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period, AC decreased by a net amount of ~\$2M from \$296M to \$293.8M. This decrease is primarily driven by an aggregation construction change orders throughout the project.

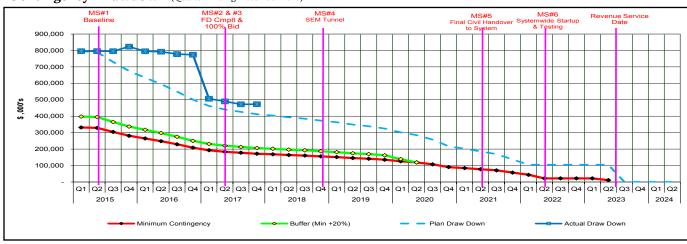
Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC balance remains unchanged at \$136.6M

Contingency	В	CE	Current Status			
Status	% of Total		Remaining Amount	% of Work Remaining		
Design Allowance	\$184.1	5.0%	\$3.6	0.1%		
Allocated Contingency	\$428.9	11.7%	\$293.8	11.3%		
Unallocated Contingency	\$182.9	5.0%	\$136.6	5.2%		
Total:	\$795.9	21.6%	\$434.1	16.7%		



Dollar figures on this page are displayed in millions.

Contingency Drawdown (Quarter Ending December 2017)



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Project Schedule

The Integrated Master Schedule is presented below.

E130 continued installing reaction frames in the floating bridge pontoons, and continued soundwall construction at Mercer Island Station. They are mobilizing throughout the project in anticipation of starting a substantial amount of work in the spring. E320 completed the overhead to underground conversion. The stop work order was lifted project wide and work continues in all areas. E330 continues to make good progress in tunneling and is still forecast to complete ahead of baseline. E335 continued placing columns for the aerial guideway, placing retaining walls, and excavating the trench at 120th-124th Avenue NE. They are preparing to relocate utilities at the north portal. E340 continues relocating utilities and placing columns. E360 is nearing design completion and has started site prep and other early work throughout the alignment. E750 Systems contractor continued product and component designs. They will complete this phase of work within the next two years and will begin physical construction on Northgate Link before commencing on East Link. Systems construction in East Link is anticipated to start on the eastern segment of E130 in Summer of 2019.

All contracts are forecast to complete on or before target. Revenue Service is forecasted in June 2023.

Activity N ame	Start	Finish							
			2017	2018	2019	2020	2021	2022	2023
East Corridor	18-Jan-15 A	30-Jun-23							7
LRT Extension - Ea st	18-Jan-15 A	30-Jun-23	_						-
East Link	18-Jan-15 A	30-Jun-23							-
East Link Construction	18-Jan-15 A	30-Jun-23	_						
EL 130 - Seattle to I-90 Overpass (GC/CM)	10-Mar-17 A	11-Jan-21	_				†		
EL 320 - I-90 Overpass to S. Bellevue (DBB)	05-Dec-16 A	24-Oct-20				7	· · · · · · · · · · · · · · · · · · ·	1	1
EL 330 - Downtown Bellevue Tunnel (DBB)	18-Jan-15 A	07-Jun-20	_						
EL 335 - Downtown Bellevue to Spring District (GC/CM)	24-Apr-17 A	19-May-21	_						
EL 340 - Spring District to SR 520 (DBB)	24-Feb-17 A	05-Jun-20							
EL 360 - SR 520 to Overlake Transit Center (DB)	13-Jul-16 A	10-Jun-20							
EL 750 - Systems	12-Jun-17 A	13-Jan-22	7					7]
East Link Master Schedule - Construction Interfaces	14-Jun-17 A	31-Mar-22	_					-	
ELRACT - East Link Rail Activation/System Integration/Projec	01-Apr-22	30-Jun-23							-
East Link Rail Activation/System Integration/Project Closec.	01-Apr-22	30-Jun-23							
Pre-Revenue Testing & Start Up	01-Apr-22	30-Sep-22							
East Link System Integration Testing (3 Mo)	01-Apr-22	30-Jun-22		[T]	[-	1
East Link Pre Revenue Operations (3 Mo)	01-Jul-22	30-Sep-22						_	
Revenue Service Window	01-Oct-22	30-Jun-23						_	-
East Link Program Float - 9 Months	01-Oct-22	30-Jun-23						_	
East Link Revenue Service Date (Target 30-Jun-23)		30-Jun-23*							+

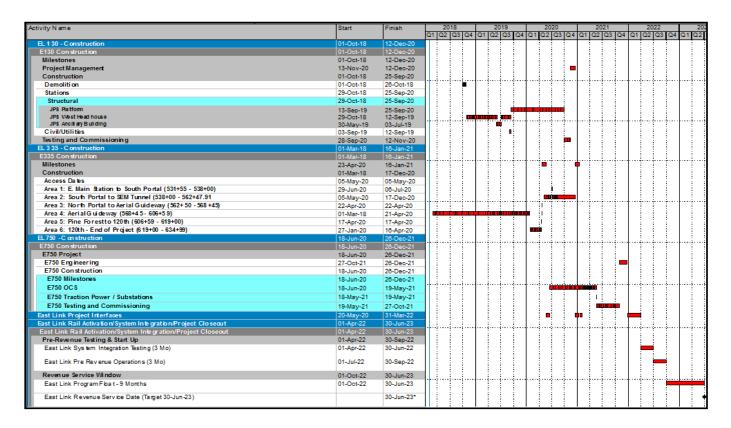
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Link Light Rail East Link Extension



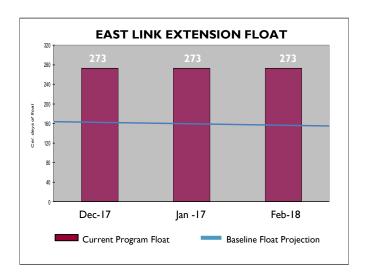
Critical Path Analysis

The East Link critical path runs concurrently through the civil-systems handovers of the I-90 corridor from the E130 Contractor and the Downtown Bellevue tunnel and East Main Station from the E335 Contractor. The critical path for E130 is driven by the demolition of the Rainier Avenue Bridge and Judkins Park Station. The E335 critical path runs through the aerial guideway, trackwork, and work at the South Portal of the tunnel which cannot begin until the E330 Contractor demobilizes.



Critical Path Float

East Link was baselined with 273 days of program float and forecasted the float level to at approximately 162 days this time period. To date, none has been expended.

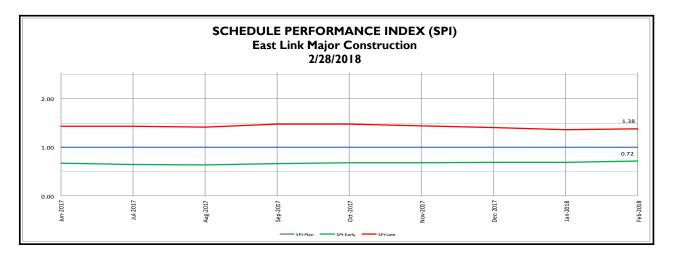


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Schedule Performance Index

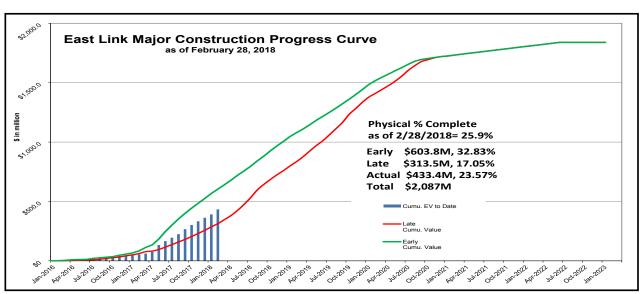
The early Schedule Performance Index (SPI) for East Link's Major Construction Packages is at 0.72 for this period. The E130 contractor did not meet their anticipated schedule on the floating bridge reaction frames last summer. The E750 contractor has changed their approach to some engineering which has slowed their progress. The late SPI is at 1.38 showing that in general, performance is satisfactory. Both numbers are an improvement from the previous month.



Cost Progress Analysis

All seven major construction contractors are now mobilized. All major civil work has started. The overall East Link Major Construction percent complete analysis is based on a weighted measurement among the seven major construction contracts' schedule, duration and cost. The graph below shows the aggregate cost progression for these construction contracts. As of the end of February, performance is trending appropriately between the early/late projection as drawn from the master schedule. The overall physical percent complete for East Link construction is approximately 25.9%.

The current period's analysis excludes the cost E335 stations work because this scope was recently added to the contract and will be rolled into this analysis in the coming months.



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Link Light Rail East Link Extension



Right-of-Way

The East Link Extension involves the acquisition of a range of property interests including fee acquisitions for stations, guideway, staging areas, support facilities, and tunnel and guideway easements as well as permanent and temporary easements for construction. These acquisitions result in owner and tenant residential and commercial relocations. Market value trends in both residential and commercial properties are exhibiting strong upward pressure. The overall impact on the Right-of-Way (ROW) budget is being closely monitored. Efforts are also underway to prioritize acquisitions by contract package to help ensure timely availability of property. Property acquisition is recognized as a high priority and the management team has formed an ad hoc ROW team consisting of internally involved departments to prioritize and manage the process. See Right-of-Way program status in the table below. Several of the remaining properties needed for construction are City of Bellevue properties committed in the Memorandum of Understanding. The ST/City of Bellevue Steering Committee consisting of senior staff are collaborating to ensure timely transfer of these property rights consistent with the project schedule and priorities.

East Link Extension Property Acquisition Status										
Line Section	Board Ap- proved	Offers Made/In Negotia- tions	Signed Agree- ments	Posses- sion and Use	Admin Settle- ment	Closings to date	Reloca- tions Required	Parcels Vacated		
Total	244	236	3	10	0	212	244	203		

Note: Number totals may differ from other reports due to the timing of reporting periods.

E130 Seattle to South Bellevue - No new activity.

E320 South Bellevue - No new activity .

E330 Downtown Bellevue - No new activity.

E335 Downtown Bellevue to Spring District - Two parcels closed.

E340 Bel-Red - No new activity

E360 SR 520 to Redmond Technology Center - No new activity.



E320 South Bellevue - Parking Garage excavation ongoing.

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Construction Safety

Data/ Measure	February 2017	Year to Date	Project to Date
Recordable Injury/Illness Cases	2	3	16
Days Away From Work Cases	0	I	2
Total Days Away From Work	18	18	20
First Aid Cases	3	12	42
Reported Near Mishaps	7	27	119
Average Number of Employees on Worksite	966	1,912	7,583
Total # of Hours (GC & Subs)	131,951	246,489	948,942
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	3.03	2.43	3.37
LTI Rate	0.00	0.81	0.42
Recordable National Average	3.20	3.20	3.20
LTI National Average	1.30	1.30	1.30
Recordable WA State Average	6.40	6.40	6.40
LTI WA State Average	2.10	2.10	2.10

Note: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals. Starting January 2018, only OSHA Recordable Injuries and Lost Time Injury (LTI) cases will be reported to better reflect the Agency Scorecard metrics.

Community Outreach

- Sent out project alert to East Link list-serve regarding traffic impacts.
- Responded to property owners' concerns about noise vibration during construction.
- Sent out construction alert on 1-405 lane closures.
- Provided construction updates to Bellefield Residential Park Board.
- Continued coordination for upcoming one-way closure on NE 136th Pl, closures on NE 130th and 132th avenues, and Spring Blvd.
- Briefings continued with car dealerships with City of Bellevue.
- Drafted and prepared graphics for Mercer Island outreach.
- Prepared signage and fencing plan for 77th Avenue construction.

Sound Transit Board Actions

Board Action	Description	Date
	None to report	

Environmental

• Continued developing environmental permit application packages. Environmental commitments are incorporated into the design, program, and specifications of the project.

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Major East Link Construction Contract Packages

Below are the major construction contract packages for the East Link Extension with a brief scope description and status of each.

R8A Stage 3A – Modification of HOV Ramp between I-90 and Bellevue Way SE. [Design-bid-build] *Status: Completed.*

E130 Seattle to South Bellevue – International District Station (IDS) modification, Retrofit of existing WSDOT structures, I-90 Center Roadway and two light rail stations. [Heavy Civil GC/CM]

Status: See following pages under Contract E130.

E320 South Bellevue – One light rail station and a parking garage at South Bellevue P&R; aerial, at-grade and retained-cut guideway along Bellevue Way SE and 112th Avenue SE. [Design-bid-build]

Status: See following pages under Contract E320.

E330 Downtown Bellevue Tunnel – SEM Tunneling along 110th Ave. NE in Downtown Bellevue. [Design-bid-build] *Status: See following pages under Contract E330.*

E335 Downtown Bellevue to Spring District – Four light rail stations; aerial, at-grade and retained-cut guideway from Downtown Bellevue, over I-405 to 124th Ave. NE. [Heavy Civil GC/CM]

Status: See following pages under Contract E335.

E340 Bel-Red – One light rail station, aerial and at-grade guideway from 124th Ave. NE to NE 20th. [Design-bid-build]

Status: See following pages under Contract E340.

E360 SR520 to Redmond Technology Center – Two light rail stations; aerial and retained-cut guideway along SR-520 in the Overlake area of Bellevue and Redmond. [Design-Build]

Status: See following pages under Contract E360.

E750 Systems – Light rail systems elements, including Traction Power Electrification, Overhead Catenary System, Train Signals and Communication System. Combined with Northgate Link N830. [Heavy Civil GC/CM]

Status: Contractor continues with critical submittal, reviews of plans and component and product designs.



E360 SR520 to RTC- Installation of vertical elements wall

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Contract E130 - Seattle to South Bellevue Heavy Civil GC/CM

Current Progress

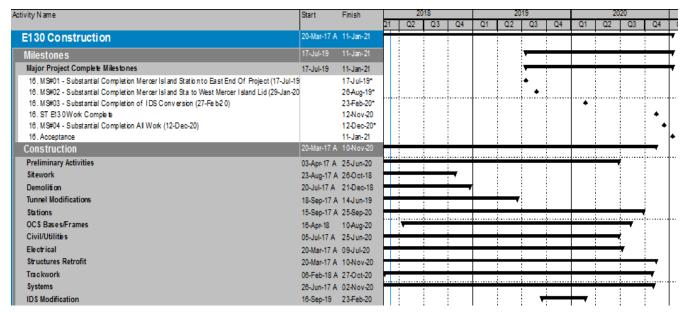
D2 Structure & Mt. Baker Tunnel (West Segment): Continue structure as-built and scanning; continue core drilling for Pier 2 micro-pile installation and footing; ongoing installation of tunnel conduit and lighting.

Floating Bridge Retrofit (Center Segment): Continue installation of PT duct, continue installation of watertight doors; erection of post tensioning reaction frames; ongoing electrical power modifications; continued scanning and coring.

Mercer Island (East Segment): Ongoing utility work, sound wall and foundation construction, head house construction for Mercer Island Station; concrete restoration and dowel bar retrofit; continue utility work & duct bank installation; installation of tunnel conduit & lighting.

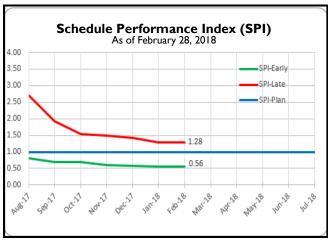
Schedule Summary

In February, the Contractor continued working inside the floating bridge pontoons to prepare for installation of post-tensioning strands. Sound wall construction continued at Mercer Island Station and elevator pits were dug; and advanced preparation continues for upcoming seismic work on the D2 roadway. Due to a field clarification which allowed the Contractor to begin installing post-tensioning duct in the pontoons during the winter moratorium, the PT and trackwork are no longer critical. The critical path for this project now runs through access to the D2 roadway and subsequent demolition of the Rainier Avenue Bridge, then through Judkins Park Station.



Schedule Performance Index

This period, the SPI early is 0.56, SPI late is 1.28. The early index indicates that the Contractor is behind their early finish plans; meanwhile, the late index shows that the Contractor is on target with their late finish plan. These figures support the fact that the Contractor has encountered challenges in the initial phases of the post-tensioning scope and proceeded with only half of the reaction frames last Fall for the post tensioning work in the pontoons. Contractor anticipates loading the remaining reaction frames into the pontoons during Spring and completing post tensioning work in Summer 2018.



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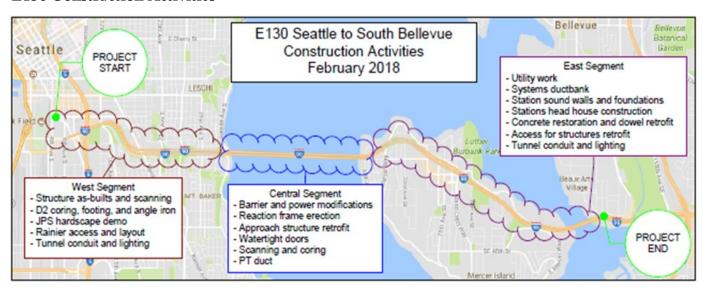
Next Period's Activities

- West Segment: Continue installing Pier 2 footing formwork and rebar; continue dowel bar retrofit; continue scanning and coring along Rainier Ave.
- HMH Floating Bridge (Center Segment): Continue preparation work for post-tension scope: continue coring for cathodic protection in pontoons; continue installation of conduit and supports.
- East Segment: Continue sound wall erection in MI Station vicinity; construction of west head house elevator shaft and escalator pit; continue scanning as required.

Closely Monitored Issues

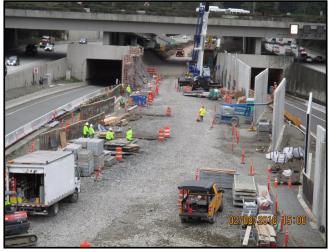
 Various methods to verify the location of posttensioning are being discussed with the Contractor and WSDOT.

E130 Construction Activities



Cost Summary

Present Financial Status	Amount
E130 Contractor - Kiewit-Hoffman, East Link Constructors	
Original Contract Value (includes Phase 2 MACC Negotiated)	\$665,000,000
Change Order Value:	\$2,509,239
Current Contract Value:	\$667,509,239
Total Actuals to Date:	\$123,606,628
Financial Percent Complete:	18.5%
Physical Percent Complete:	18.5%
Authorized Contingency:	\$46,660,541
Contingency Drawdown:	\$2,509,239
Contingency Index:	3.4



Sound Wall erection at the Mercer Island Station site.

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Contract E320 - South Bellevue

Current Progress

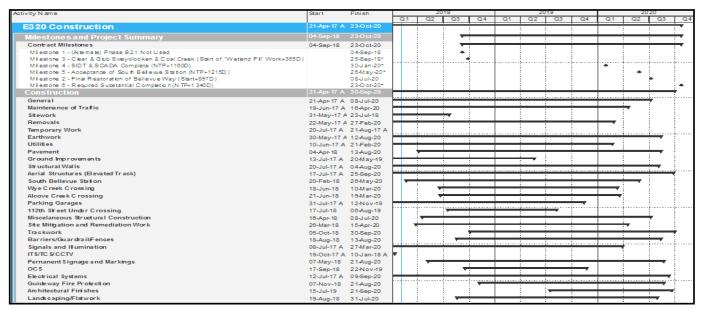
I-90 Flyover: Continued work on solider pile walls. Continued work on drilled shafts. Formed, installed rebars and placed concrete for shaft columns and bent caps.

Park-and-Ride: Began installation of falsework for station platform. Formed, installed rebars and placed concrete for shaft and columns. Installed stone columns for ground improvement.

Bellevue Way SE: Constructed access road to Winters House. Continued building out PSE and Century Link utilities. *Wye-to-East Main:* Continued CDSM work and spoil removal. Installation of underground PSE duct bank. Demolition work along 111th Ave SE.

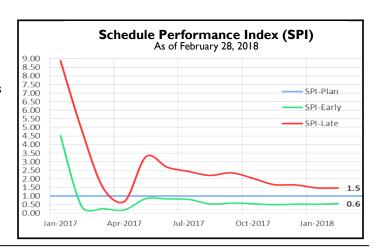
Schedule Summary

The critical path for this contract follows the stone columns for ground improvement to the construction of the trench along Bellevue Way SE and then trackwork. In February, the overhead-to-underground work was completed. The stop work order previously in place for the area from the blueberry farm to the wye was lifted so work proceeded in all areas. The below graphic is the contractor's January schedule update. The February update was rejected due to non-compliance with ST specifications. Work is proceeding and the situation is being monitored.



Schedule Performance Index

This period, the SPI early is at 0.6 and the SPI late is at 1.5. The numbers indicate that the Contractor continues to be behind the early curve, but maintains ahead of the late curve when compared to the baseline work plan. There was a slight improvement in the productivity in the SPI early while the SPI late is holding at the previous month level. The slight improvement can be attributed to the ramping up of Grade Beam operations.



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Next Period's Activities

- Continue earthwork, foundations and retaining wall operations.
- Continue work on elevated guideway columns and shafts
- Build out PSE and Century Link facilities on Bellevue Way SE.
- Continue PSE underground duct bank and other utility works on 112th.
- Continue CDSM work on 112th.

Closely Monitored Issues

- The depth of potentially unsuitable material northeast side of the Park-and-ride.
- Working adjacent to wetland areas.
- Elimination of three-lane reversible MOT on Bellevue Way SE and replace it with an alternate MOT.

Cost Summary

Present Financial Status	Amount
E320 Contractor - Shimmick/Parsons JV.	
Original Contract Value	\$319,859,000
Change Order Value:	\$1,517,229
Current Contract Value:	\$321,376,229
Total Actuals to Date:	\$77,056,564
Financial Percent Complete:	24.0%
Physical Percent Complete:	24.0%
Authorized Contingency:	\$38,532,000
Contingency Drawdown:	\$1,517,229
Contingency Index:	6.0

^{* \$} Amount exclude betterment and STart.



Installing drill shaft at I-90 Flyover.



Setting false work for the station platform.

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Contract E330 - Downtown Bellevue Tunnel

Current Progress

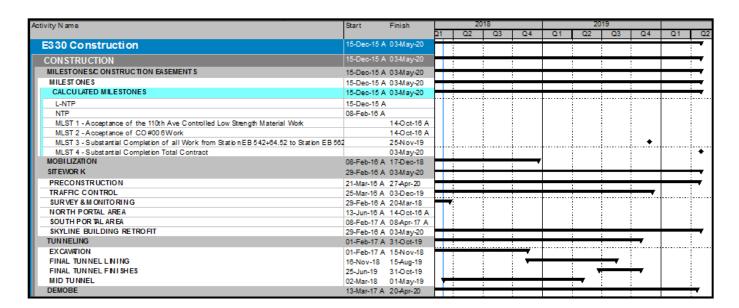
South Portal: Completed excavation enlarged section. Continuation of 6 drift heading excavation throughout this period. Excavation progressed approximately 124 feet this period, which is approximately 1,312 total feet of excavation to date. The learning curve on this enlarged section of the tunnel is shorter than planned together with the good ground condition, the tunneling productivity has been excellent. Hauling of spoils offsite continues.

North Portal: Completed installation of PVC drainpipe and wheel stops on level P3 of the Skyline Building. CMC completed the PSE electrical application for the permanent power at the North Portal.

Between Portals: Continue monitoring instrumentation along tunnel alignment.

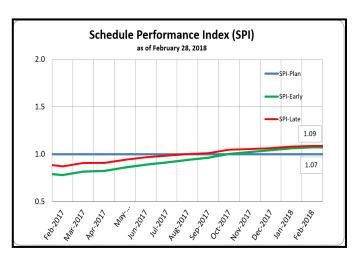
Schedule Summary

The critical path for this contract follows the tunnel excavation and the completion of the South Portal structure. Tunneling continues to exceed estimated production rates. The Contractor's cumulative rate has now reached 4.38 LF/Day. The Contractor is now forecast to finish excavating in November 2018 and to achieve Substantial Completion on time.



Schedule Performance Index

This period, the SPI early is at 1.07 and the SPI late is at 1.09. The trend continues moving in the positive direction mainly due to advanced tunnel excavation progress. The better than expected 6 drift excavation learning curve and good ground conditions encountered to date have substantially improved productivity compare to originally planned. Due to this advance productivity achieved, Tunnel excavation is expected to be complete ahead of planned schedule unless the Contractor encounter significant groundwater.



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Next Period's Activities

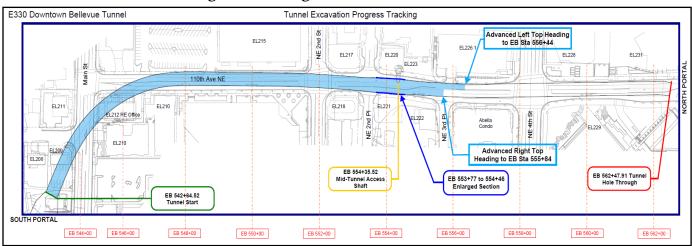
- Continue 6 drift heading tunnel excavation, extend ventilation lines, and continue spoil hauling.
- Continue investigation and soil testing at utilities in close proximity to tunnel crown at the intersection of 110th Ave NE and NE 4th Street
- Finalize Engineer of Record memo to close out COB Building permit for Skyline Building parking.

Closely Monitored Issues

The Contractor and ST are working with COB to perform investigation of the location and condition of the utility pipes in the intersection of NE 4th street and 110th.

- Contractor's revised SEM tunnel dewatering plan foregoes surface dewatering in lieu of dewatering only from inside the tunnel. ST continues to monitor water intrusion in the tunnel. Contractor is responsible for the cost and time impact to the work.
 - ST reviewing Contractor's proposal to revise the reinforcing configuration at the tunnel adit breakout due insufficient excavation of that area to allow for the reinforcement to be installed.
- Quality and workmanship with regard to the use of shotcrete for the final lining in the tapered and enlarged sections, the shaft and center wall will be critical.

E330 Tunnel Excavation Progress Tracking



As of 2/28/2018

Cost Summary

Present Financial Status	Amount
E330 Contractor– Guy F Atkinson Construction, LLC.	
Original Contract Value	\$121,446,551
Change Order Value	\$1,314,786
Current Contract Value	\$122,761,337
Total Actual Cost (Incurred to date)	\$63,537,387
Financial Percent Complete:	52%
Physical Percent Complete:	52%
Authorized Contingency	\$12,144,655
Contingency Drawdown	\$1,314,786
Contingency Index	4.8



Excavating tunnel top heading.

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Contract E335 – Bellevue to Spring District Heavy Civil GC/CM

Current Progress

Area 3 – North Portal/City Garage/BTC Station: Continued footing P3 and wall installation for rebuild of the City Hall Parking Garage. Continued excavation and lagging and steel installation at the north portal.

Area 4 – Aerial Guideway: Commenced falsework installation for the long span over I-405 with lane closures for subgrade preparation and bent placement. Continued Installation of columns and column cap. Completed Installation of falsework for Spans 1 and 2, also Spans 1 deck was poured.

Area 5 – Pine Forest Wall construction & Earthwork: Completed placement of MSE panels for retaining walls.

Area 6 – 120th-124th Trench/Station: Completed mass excavation of trench to the east of 120th Station and construction of 120th Ave. NE soldier pile fascia wall.

Stations and Tunnel MEP: Change Executed change order to incorporate the stations, vertical transportation, and tunnel MEP.

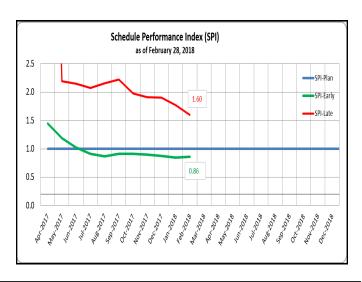
Schedule Summary

There are two primary critical paths for this project, corresponding to the two handovers to the E750 systems contractor—one runs through the North Portal and BTC station work in Area 3, and the other follows access to the SEM tunnel (E330 contract) in Area 2 and goes through the South Portal and the South Portal Electrical Building. That work will not start until mid-2020.

Activity Name		Finish		2	018			20	19	2020			20			202
			21	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
E335 Construction	24-Apr-17 A	19-May-21	Ħ	:	:	-		:								—
Milestones	06-May-18	19-May-21		-	•	:			:						_	-
Contract Milestones	30-Sep-18	16-May-21				-		•	: -	_		•		-	_	→ !
Milestone #1 -Complete North Potal Headwall Temporary Shoring Milestone #2 -Complete SIDTs for Interface to SCADA		30-Sep-18* 14-Jan-20*	7.1.		į.	•					•				ļ	
Milestone #3 - Complete Trackway and Stations for Primary Systems Access - BTC to EOR Milestone #4 - Complete SBM Tunnel Trackwork for Primary Systems Access Milestone #5 - Complete Al Trackway and Stations for Primary Systems Access		13-May-20* 16-Jan-21* 16-Mar-21*										*			٠.	
Milestone #8 - Substantial Completion of all Work Calculated Milestones	06-May-18	16-May-21* 19-May-21	ш	_	-		-		<u> </u>							-
E335 Achieves Milestone #1 E335 Achieves Milestone #2 E335 Achieves Milestone #3 E335 Achieves Milestone #4 E335 Achieves Milestone #6		08-May-18 13-Jan-20 19-May-20 18-Jan-21 17-Mar-21		*							•	*			٠.	
E335 Achieves Milestone #6 Construction	24-Apr- 17 A	19-May-21 19-Apr-21														~ *
Area 1: E. Main Station to South Portal (531+55 - 538+00) Area 2: South Portal to SEM Tunnel (538+00 - 562+47.91 Area 3: North Portal to Aerial Guideway (562+50 - 568+45) Area 4: Aerial Guideway (568+45 - 608+59) Area 5: Pine Forestto 120th (606+59 - 618+00) Area 5: 120th - End of Project (618+00 - 634+98)	11-Oct-17 A 07-May-18 24-Apr-17 A 24-Apr-17 A 07-Jul-17 A 01-Aug-17 A	19-Apr-21 30-Mar-21 30-Mar-21 30-Mar-21 30-Mar-21		-												.
Testing and Commissioning	_	17-Dec-20								,	-					

Schedule Performance Index

This period, the SPI early is at 0.86 and the SPI late is at 1.60. The numbers indicate that the contractor continues behind the early curve, but well ahead of the late curve when compared to the baseline work plan. These figures are supported by the fact that delays continued with utility work in Area 3 and 4, resequencing for drilled shaft installation, and lack of access to EL-243 property for demolition occurred later than planned. Also, completion of trackway excavation and embankment in Area 5 was delayed as wet conditions in December and January. were encountered. The aerial guideway continues to lag behind as work on the long span has slipped along with delays in material procurement.



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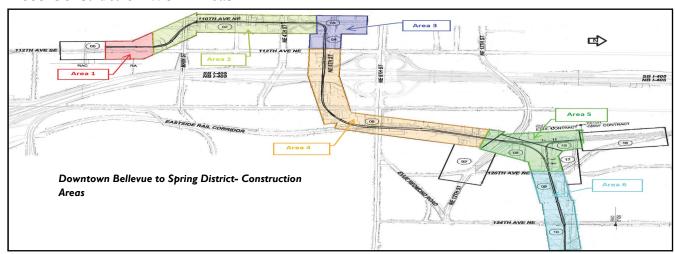
Next Period's Activities

- Area 3–N Portal/City Garage/BTC Station: Continue footing and wall installation on Level 3 and 2 Parking to rebuild the City Hall Garage. Continue excavation and lagging and steel installation at the north portal.
- Area 4-Aerial Guideway: Continue formwork and reinforcing and rebar for pier cap in area 4 and Complete drill shaft installation. Continue falsework installation for the long span overcrossing of I-405. Commence demolish property EL-243.
- *Area 5-Pine Forest Wall construction & Earthwork*: Commence utility work along 111th Ave SE.
- Area 6 120th-124th Trench/Station: Commence reinforcing steel for trench wall construction east of 120th Station

Closely Monitored Issues

- Environmental Consultant discussed the E335 discharge locations with the City of Bellevue Utilities group at King County's request, and confirmed the addition of discharge points to the system. King County continues to review the requested additional discharge points.
- Implementation of sick leave law will result in additional costs for craft labor that were not contemplated at time of Total Contract Cost negotiation.
- Bellevue's 124th Avenue NE project continues to be delayed which may affect completion of the retained cut and 124th NE undercrossing.
- Nightly lane closures of I-405 continued for long span falsework installation expected to last through the month of March will impact the collector-distributor lanes.

E335 Construction Work Areas



Cost Summary

Present Financial Status	Amount
E335 Contractor- Stacy & Witbeck/	
Atkinson Joint Venture (SWA-JV).	
Original Contract Value*	\$228,398,210
Change Order Value	\$169,336,610
Current Contract Value	\$397,734,820
Total Actual Cost (Incurred to date)	\$81,735,828
Financial Percent Complete:	19.8%
Physical Percent Complete:	19.8%
Authorized Contingency	\$19,689,911
Contingency Drawdown	\$3,936,610
Contingency Index	1.0

^{*} Amounts excludes station scope.



Trench excavation for 120th station (Area 6)

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Contract E340 - Bel-Red

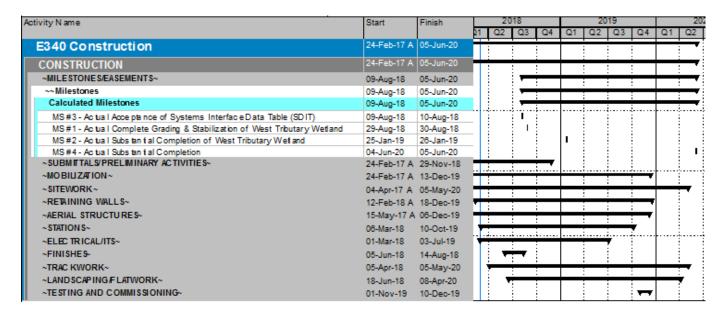
Current Progress

Eight out of eleven crossbeam pours are completed and storm drains installations are complete along the west tributary Kelsey Creek wetland. Continued work on joint duct bank trench. PSE completed removal of all existing overhead lines along 136th Ave . Started work on King County 48"RCP sanitary sewer installation. Oversetting manhole at KCWW01 located short of 130th Street , dewatering, excavating for first pipe run. Completed Stringing of overhead cable and removal of existing overhead cable along the AL26 alignment located south of 132th Ave to NE 20th (Eastside)

Schedule Summary

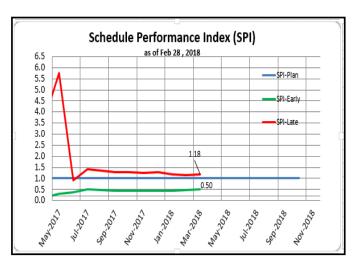
Work in February included continued utility relocation and utility installation and placing columns and setting falsework for the aerial guideway; and work began on the retaining walls.

The critical path of this project now runs through the wet utilities on the west side of 136th, the 136th utility crossings, and west trackwall construction, then the same sequence on the east side of 136th, followed by trackwork.



Schedule Performance Index

This period, the SPI early is at 0.50 and the SPI late is at 1.18. The late index indicates that the Contractor continues to be ahead of the planned late finish work. The SPI early is indexed behind the Contractor's planned early finish schedule. Both early and late index has remained approximately the same as previous months which is supported by the fact that the Contractor continues to face challenges with commercial connections being done by multiple private utility companies.



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Next Period's Activities

- Preparations for King Count Sanitary Sewer relocation.
- Coordination and planning for PSE gas main installations.
- Potholing and preparing to begin underground utility work on 130th Ave in preparation for the full closure scheduled in March.

Closely Monitored Issues

- Bellevue interface coordination including 124th Avenue NE and Mid-Lakes Pump station.
- Disputed Seattle City Light property easements is impacting City of Bellevue's 124th Avenue construction which in turn may impact E340 Contractor's early guideway work (soldier pile and retaining walls).
- Potential contamination of soil and ground water during excavation to relocate King County Sewer.
- Ongoing utility conflicts encountered within the roadway and private properties.

Cost Summary

Present Financial Status	Amount
E340 Contractor– Max J Kuney	
Original Contract Value	\$93,170,012
Change Order Value	\$1,684,762
Current Contract Value	\$94,854,774
Total Actual Cost (Incurred to date)	\$21,004,654
Financial Percent Complete:	22.14%
Physical Percent Complete:	22.14%
Authorized Contingency	\$9,317,000
Contingency Drawdown	\$1,694,762
Contingency Index	1.9



Vault excavation at the corner of 136th Place and Spring Boulevard

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Link Light Rail East Link Extension - Design- Build

Contract E360 – SR 520 to Redmond Technology Center (RTC)

Current Progress

Design: Advanced design packages for the following areas: SR520 Permanent Roadway 100% submittal preparation, System Design continue IFC validation (Rev 1), Civil Systems continue 100% submittal preparation, OVS Facilities continue IFC development, OTC Facilities KH submitted IFC design, OVS Ped Bridge continue IFC development, Landscape continue 100% submittal preparation.

Construction: Drilled shaft work installation ongoing along the aerial guideway (six shafts completing drill/rebar/pour.) Guideway bent column and cap mockup completed/approved. Column form placement began along the aerial guideway (four shafts form/rebar/place.) Backfill completed for Park Place detention vault and punchlist process for OVS Vault began. Work Area #6 (OTC Site) ongoing installation of soil nails/shotcrete for wall S8 and started walls 13/14 in Work Area #5 (at grade guideway).

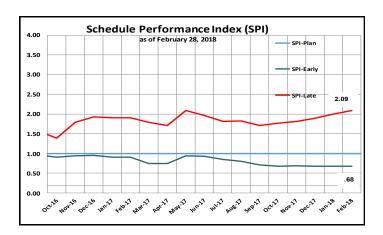
Schedule Summary

In February, the Contractor continued progressing all design packages toward 100% or IFC. Potholing, grading, and utility relocation in preparation of retaining wall construction took place. Detention vault construction and drilled shafts for the aerial guideway continued. The critical path for this project follows the aerial guideway through track work.

Activity Name		Finish	2018				2019				
			11	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
E360 Construction	13-Jul-16 A	13-Dec-19	т		:					_	
Base Contract	13-Jul-16 A	13-Dec-19	+		:	:			:	_	
Design	13-Jul-16 A	23-Jun-18	 	_	Ė						
Construction	10-Apr-17 A	13-Dec-19	H		_	•					
Genera I	10-Apr-17 A	13-Dec-19	_		·	<u>.</u>				_	
Project Milestones	10-Apr-17 A	13-Dec-19	1		:	!			:	•	
Civil Systems 100% Design Submittal (NTP+300d) (09-May-2017)		10-Apr-17 A								:	
Substantial Completion		16-Oct-19								*	
Actual Acceptance of all Work		13-Dec-19								*	
WA #1 -Track Slab Guideway	22-May-17 A	25-Sep-19			:	<u></u>				ţ	
WA#2-Aerial Guideway	01-Jun-17 A	02-Oct-19				!				7	
WA#3-Ballasted Guideway Block#1	08-Jun-17 A	09-Aug-19	Н:		: -	:			_	:	
WA#4-Overlake Village Station	31-May-17 A	31-Dec-17 A								.	
WA #5 -Balla sted Guideway Block #2	15-Aug-17 A	19-Aug-19	Н.		:	:			•		
WA #6 - O verlake Tran sit Center	01-May-17 A	10-Oct-19	н-		:	<u></u>				.	
WA #7 - O VS Pedestrian Bridge	28-Feb-18 A	20-Sep-19	1		:	!			•		
WA#8-OTC Pedestrian Bridige	16-Oct-19	16-Oct-19								▼	

Schedule Performance Index

This period, the SPI early is 0.68 and SPI late is 2.09. The early SPI value continues to reflect slippage of early finishes of baseline planned work along with the ST directed stoppage of RTC Pedestrian Bridge design which has not been deleted. Construction start has been somewhat slowed by design slippage. Late SPI recovery is due to the resequencing of construction and pushing the RTC Pedestrian Bridge design out.



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Link Light Rail East Link Extension - Design- Build



Next Period's Activities

- Design Civil SR520 100% design package ongoing development, Systems Design/OVS & OTC Facilities IFC Validation and preparing OVS Ped Bridge 100% resubmittal.
- Work Area #2- Continue place of drilled shaft, column and cap installation. Rebar fabrication and placement ongoing
- Work Area #4

 Complete punch list activities and backfill OVS vault.
- Work Area #5- Continue construction of soil nail walls 13 & 14.
- Work Area #6– Frontier fiber relocation will be completed sequentially with wall installation. Continue construction of wall S8 (shotcrete).

Closely Monitored Issues

- Alternative RTC Pedestrian Bridge Contractor and Microsoft are working on 60% designs for an alternative pedestrian bridge. Amendment to the OTC Funding Agreement and the E360 contract will be required.
- Contractor, Sound Transit and City of Redmond continue to work out permitting issues.
- Commercial Issues on Sales Tax Increase, Track/ Fasteners/Clips, 152nd Street Utility DSC, Waterline Routing at OTC and As-Built Specification.
- Third party performance of utility contractors and scheduling their work in sequence with project requirements.
- Wall S8 Soil Nail Construction Issues.
- Timeliness of Construction Work Plan submittals.

E360 Construction Work Areas



Cost Summary

Present Financial Status	Amount
E360 Contractor— Kiewit-Hoffman	
Original Contract Value	\$225,336,088
Change Order Value	\$875,747.21
Current Contract Value	\$226,211,835.21
Total Actual Cost (Amount Billed)	\$65,043,853
Financial Percent Complete:	28.87%
Physical Percent Complete:	28.87%
Authorized Contingency	\$23,071,580
Contingency Drawdown	\$622,835.21
Contingency Index*	5.6



Wall S8 -Soil Nails and WSDOT Vault Demolition along SR-520

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Link Light Rail Downtown Redmond Link Extension



Scope

The Downtown Redmond Link Extension builds new light rail from the Redmond Technology Center Station to downtown Redmond by 2024. Light rail will travel along SR-520 with two new stations in southeast Redmond, at Marymoor Park, and downtown Redmond. The current budget for this project through completion of PE is \$28.6M, excluding real estate acquisitions.

Key Project Activities/Issues

- Negotiating Project Administration Agreement and Design Construction Agreement with City of Redmond and King County.
- Received CCB approval to amend the PE consultant contract to include bridging documents. Will seek ST Board approval in March.
- Working with the FTA and National Marine Fisheries Services (NMFS) on the Endangered Species Act.
- Conducted Permitting Pre-Application meetings with US Army Corps of Engineers, FTA, Muckleshoot Indian Tribe, WA Ecology, Washington Department of Fisheries and Wildlife (WDFW), King County and City of Redmond.



Map of Downtown Redmond Link Extension.

Project Cost Summary

Voters approved funding for preliminary engineering for the Redmond Link extension in the 2008 in the Sound Transit 2 ballot measure. In response to the 2007-2009 Great Recession, the ST Board suspended the project. In February 2016, the ST Board restored funding to support preliminary engineering of the project prior to funding approval for final design and construction as part of the Sound Transit 3 Plan. Table (below) figures in millions.

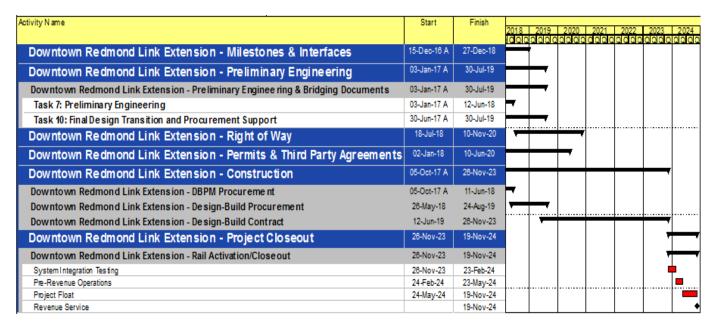
Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Versus EFC
Administration	\$4.9	\$4.9	\$1.8	\$1.9	\$4.9	\$0.0
Preliminary Engineering	\$21.3	\$21.3	\$13.8	\$10.3	\$21.3	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$2.0	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
3rd Party Agreements	\$2.8	\$2.8	\$0.3	\$0.1	\$2.8	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$147.0	\$147.0	\$0.6	\$0.2	\$147.0	\$0.0
Total	\$178.0	\$178.0	\$16.5	\$12.5	\$178.0	\$0.0

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Link Light Rail Downtown Redmond Link Extension

Project Schedule

The project schedule is presented below. The project is currently undergoing environmental analysis ahead of the ST Board adopting the project to be built. Property acquisitions have begun. The PE Consultant is nearing completion of the 60% deliverable of the RFP for the Design-Build procurement. The RFP is anticipated to be issued in 3rd QTR 2018. The project is anticipated to be baselined by 1st QTR 2019. Project is currently forecast for completion near the



Sound Transit Board Actions

Board motions and resolutions directly related to Downtown Redmond Link Extension is summarized in the table below.

Motion Number	Description	Date	
	None this period.		

Environmental

Ongoing collaboration and meetings regarding various environmental permits.

Community Outreach

- Continued meeting with property owners regarding refinements on the project's route, profile and stations.
- Gathered contact information and assessed construction outreach needs for businesses along the front line of future construction.

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Link Light Rail West Seattle & Ballard Link Extensions



Scope

The West Seattle segment includes 4.7 miles of light rail and five light rail stations from downtown Seattle to West Seattle's Junction neighborhood. The route will run primarily on elevated guideway with a new rail-only bridge over the Duwamish River. Revenue Service by 2030.

The Ballard segment includes 7.1 miles of light rail from downtown Seattle to Ballard's Market Street area. It includes nine light rail stations. The route will run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay. Revenue Service begins by 2035.

Key Project Activities

- Initiated 30-day SEPA early scoping period on February 2. Held three public open houses and one agency scoping meeting to solicit input on the ST3 representative project, project purpose and need, and community concerns.
- Continued working with project development services consultant to develop information to support the alternatives development effort. Began development of potential alignment alternatives and station locations.
- Continued to coordinate project development activities with other agencies, including City of Seattle, King County Metro, Port of Seattle, WSDOT and key local, state and federal agencies.



Map of West Seattle & Ballard Link Extensions

Project Cost Summary

The West Seattle and Ballard Link Extensions are voter-approved projects under the ST3 Plan. The ST Board approved budget allows staff to retain a consultant team to begin alternatives development, followed by an Environmental Impact Statement, leading to ST Board selection of the project to be built and FTA issuance of a Record of Decision no later than 2022. Table (below) figures in millions.

Project Phase	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Versus EFC
Administration	\$63.1	\$1.9	\$1.5	\$63.1	\$0.0
Preliminary Engineering	\$205.4	\$24.4	\$3.6	\$205.4	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$11.4	\$0.0	\$0.0	\$11.4	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$0.1	\$0.1	\$6.0	\$0.0
Total	\$285.9	\$26.5	\$5.2	\$285.9	\$0.0

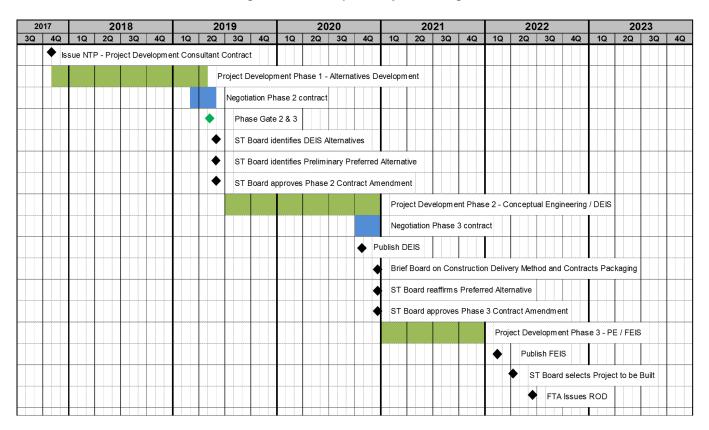
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Link Light Rail West Seattle & Ballard Link Extensions

Project Schedule

The preliminary project schedule through the ST Board selection of project to be built and FTA issuance of ROD is presented below. Sound Transit is developing the master project schedule in Primavera P6, which is supported by detailed schedule of Phase 1, Alternatives Development, created by the Project Development Consultant.



Sound Transit Board Actions

Board motions and resolutions directly related to West Seattle and Ballard Link Extensions are summarized in the table below.

Motion Number	Description	Date
	None this period.	

Environmental

- Retained an Environmental Services consultant to provide review assistance and day to day support for the FTA Region 10 in its work coordination with Sound Transit.
- Initiated 30-day SEPA early scoping period.

Community Outreach

- In February, ST held three project kick-off open houses in West Seattle, Ballard and Downtown Seattle and introduced the project team and share info and approximately 700 people attended.
- Online open house went live this period and 5,000 plus visited the website.
- Approximately 2,800 total comments were received via meetings and other methods

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Link Light Rail S. 200th Link Extension



Scope

Limits: South 200th Link Extension consists of

1.6-mile extension of light rail from the SeaTac/Airport Station to South 200th

Street.

Alignment: The extension continues in an aerial con-

figuration heading south of the existing SeaTac/Airport Station, east of Air Cargo Road across South 188th Street, and continuing south along the east side of 28th Avenue South to the elevated Angle Lake Station located at South 200th Street. A passenger pickup/drop-off area, bus transfer, plaza, and a minimum 1,050-space structured park and ride facility is located at Angle Lake Station. Up to 70 additional spaces were developed for interim parking while Angle Lake Station is the interim southern terminus of the Link system. Guideway/Station and Parking Garage/Plaza was delivered under a Design Build

contract.

Station: Angle Lake Station is located at South

200th Street.

Systems: Signals, track electrification, and SCADA

communications

Budget: \$383.2 Million

Schedule: Revenue Service began on September 24,

2016



Map of S. 200th Link Extension.

Key Project Activities

- Design Build Guideway and Station (S440): The project team working with Contractor to finalize remaining closeout work to achieve Acceptance on the contract. ST evaluating claim submitted by Contractor.
- Design Build Parking Garage (S445): The project team is working toward achieving Acceptance on the contract.
- Roadway Improvements (S447): Closeout complete.
- Military Road/South 200th Intersection (S446): WSDOT finalizing punch list activities and complete year one plant establishment work by May 2018.
- *Project Wide:* Goal to conclude all closeout, except S446) and follow-on work by end of 2nd QTR 2018.

Closely Monitored Issues

- *S440:* Claim from contractor regarding Station Control Unit is under review.
- *S445:* Garage façade panels require repairs due to strong winds. ST awaits a plan from the Contractor.
- Rail grinding /polishing work pending to remove roughness

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Link Light Rail S. 200th Link Extension

Project Cost Summary

The South 200th Link Extension cost is summarized into two cost tables. The current Adopted Budget column reflects the 2016 Adopted Budget. The first table is in accordance with Sound Transit's Work Breakdown Structure (WBS) displaying the cost summary by phase. The second table summarizes project cost by SCC, in accordance to the FTA Standard Cost Categories (SCC) format. Both tables show figures in millions.

Cost Summary by Phase

WBS Phase Elements	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Est. Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.1	\$17.1	\$16.2	\$16.2	\$16.5	\$0.6
Preliminary Engineering	\$5.9	\$5.7	\$5.7	\$5.7	\$5.7	\$0.0
Final Design	\$20.0	\$9.5	\$8.7	\$8.7	\$8.7	\$0.8
Construction Services	\$15.1	\$17.3	\$17.1	\$17.1	\$17.1	\$0.2
3rd Party Agreements	\$6.9	\$7.1	\$5.7	\$3.8	\$3.3	\$3.8
Construction	\$275.7	\$282.9	\$239.5	\$238.6	\$243.1	\$39.8
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$43.5	\$43.5	\$38.0	\$38.0	\$38.1	\$5.5
Capital Total	\$383.2	\$383.2	\$330.9	\$328.1	\$332.6	\$50.6
Finance Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Project Total	\$383.2	\$383.2	\$330.9	\$328.1	\$332.6	\$50.6

The overall project Estimated Final Cost (EFC) for this period reflects \$332.6M, a savings projection of \$50.6M. This period incurred cost increased by approximately \$0.3M, of this \$0.2M is the construction phase for \$440 contract activity, and the remaining is split between construction services and administration phases.

The EFC grouped by SCC is also reflecting \$332.6M, a savings projection of \$50.6M. The work remaining can be achieved under the adopted budget.

Cost Summary by SCC

Project Elements by SCC	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Est. Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track Elements	\$144.8	\$133.0	\$100.3	\$100.4	\$109.5	\$23.5
20 Stations	\$46.4	\$51.7	\$42.0	\$42.0	\$42.3	\$9.5
30 Support Facilities: Yards, Shops	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$34.6	\$55.3	\$55.6	\$54.6	\$55.0	\$0.3
50 Systems	\$30.8	\$19.9	\$20.4	\$20.3	\$20.4	-\$0.4
Construction Subtotal (SCC 10-50)	\$256.6	\$259.9	\$218.3	\$217.4	\$227.1	\$32.8
60 Row, Land, Existing Improvements	\$43.5	\$43.5	\$38.0	\$38.0	\$38.1	\$5.5
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$64.1	\$72.5	\$74.6	\$72.7	\$65.7	\$6.8
90 Unallocated Contingency	\$19.0	\$7.3	\$0.0	\$0.0	\$1.8	\$5.5
Project Total (SCC 10-90)	\$383.2	\$383.2	\$330.9	\$328.1	\$332.6	\$50.6
100 Finance Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Project Total (SCC 10-90)	\$383.2	\$383.2	\$330.9	\$328.1	\$332.6	\$50.6

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Link Light Rail S. 200th Link Extension



Cost Contingency Management

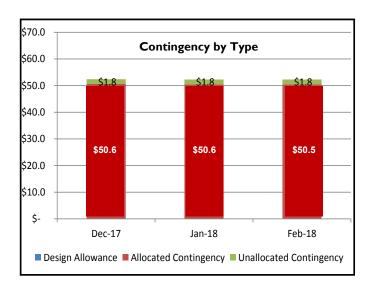
The overall project contingency balance as of this period is \$52.3. Table (below) figures in millions.

Design Allowance (DA): N/A

Allocated Contingency (AC): This period the AC balance is \$50.5M, No change this period.

Unallocated Contingency (UAC): This period the UAC balance is \$1.8M, reflecting no change.

	Base	eline	Cu	rrent
Contingency Status	Amount	ount % of Total		% of Work Remain-
Design Allowance	\$26.7	7.0%	\$ -	0.0%
Allocated Contingency	\$29.8	8.0%	\$50.5	1110.0%
Unallocated Contingency	\$19.0	5.0%	\$ 1.8	39.6%
Total	\$75.5	20.0%	\$52.3	1149.9%



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Link Light Rail S. 200th Link Extension

S440 Contract—Design -Build (Guideway and Station)

Close-out

Revenue Service began on September 24, 2016. The S440 Contractor continues to work on closeout items.

Close-out Activities

Current Period

• Continued closeout activities: finalizing last change order, review Claim 003 SCU claim and CAD Asbuilts under review by ST.

Next Period

- Complete closeout activities.
- Issue Final Acceptance to Contractor.

Closely Monitored Issues

• The Contractor has submitted a claim regarding a Station Control Unit.

S445 Contract—Design -Build Parking Garage

Close-out

Substantial Completion issued on December 21, 2016. *No more updates.*

Cost Summary

Present Financial Status	Amount
S440 Contractor—PCL Civil Contractors, Inc.	
Original Contract Value	\$169,000,000
Change Order Value	\$6,856,390
Current Contract Value	\$175,758,490
Total Actual Cost (Amount Billed)	\$175,753,406
Financial Percent Complete:	99.9%
Physical Percent Complete:	100%
Authorized Contingency	\$13,520,000
Contingency Drawdown	\$6,856,390
Contingency Index	2.0

Cost Summary

Present Financial Status	Amount
S445 Contractor—Harbor Pacific/Graham	
Original Contract Value	\$29,978,000
Change Order Value	\$2,607,828
Current Contract Value	\$32,585,828
Total Actual Cost (Amount Billed)	\$32,582,606
Financial Percent Complete:	100%
Physical Percent Complete:	100%
Authorized Contingency	\$2,798,240
Contingency Drawdown	\$2,607,828
Contingency Index	1.0

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Scope

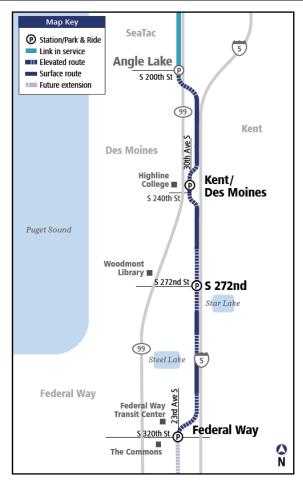
The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center. The extension generally parallels SR 99 and I-5 freeway with stations at Kent/ Des Moines, South 272nd Star Lake Park –and-Ride and the Federal Way Transit Center. The current budget for this project through completion of Final Design is \$412.6M.

Key Project Activities

- Design Build Project Management Phase 1 contract and amending Design Services contracts were approved by ST Board in February 2018.
- Continued to work with FTA & PMOC in preparations for Entry to Engineering and Full Grant Funding Agreement applications.
- Continued ROW acquisition and relocation activities.
- Continued efforts to identify housing resources and alternative methods to secure.
- Continued working with cities to finalize Development and Transit way agreements.
- Continued working with WSDOT to develop agreement to construct the SR99 bridge.

Closely Monitored Issues

- Availability of federal funding remains uncertain and may impact schedule.
- Volume of residential relocations continues to be a concern due to limited housing availability.
- WSDOT agreement being developed to construct the SR99 bridge has potential cost and schedule impacts.



Map of Federal Way Link Extension.

Project Cost Summary

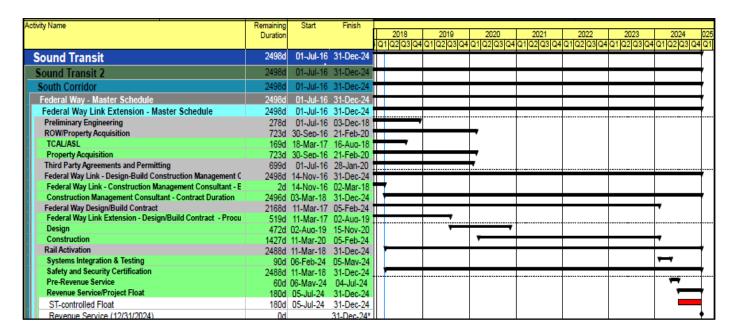
In March 2017, the Sound Transit Board authorized the Federal Way Link Extension Project to advance through Gate 4 (Final Design), increasing the authorized project allocation from \$48.8M to \$412.6M. Board approval for Gate 5 (Baseline) to release the entire project budget will be sought in 4th QTR 2018. Table (below) figures in millions.

Phase	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Authorized Allocation Versus EFC
Administration	14.9	9.8	9.8	5.1	14.9	\$0.0
Preliminary Engineering	43.4	40.6	40.8	2.8	43.4	\$0.0
Final Design	2.4	0.4	0.3	2.0	2.4	\$0.0
Construction Services	45.7	0.0	0.0	45.7	45.7	\$0.0
Third Parties	18.6	3.3	1.9	15.4	18.6	\$0.0
Construction	13.5	0.0	0.0	13.5	13.5	\$0.0
Right of Way	274.1	26.3	8.3	247.8	274.1	\$0.0
Total	\$412.6	\$80.3	\$61.2	\$332.3	\$412.6	\$0.0

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Project Schedule

The project schedule is presented below. Record of Decision (ROD) was received in March 2017. The Design Build Project Management team will receive NTP next period. ST will issue an RFQ for potential Design-Build contractors in 2nd QTR 2018. Real Estate acquisitions continue and additional detail has been added to the master schedule to monitor any impacts to the project. Project Baseline and Final Entry to Engineering Submittal has been delayed to 3rd QTR 2018 to allow time for completion of independent cost estimate and risk assessment.



Right-of-Way

The Right-of-Way project for Federal Way Link Extension involves the acquisition, including owner and tenant relocations as appropriate, of a range of property interests. Property interests includes compensable (e.g. fee acquisitions, permanent and temporary construction easements and non-compensable rights - e.g. rights of entry). As of this period, a total of 341 parcels are certified for Federal Way Link Extension. Approximately 256 owners, tenants and businesses will be relocated as part of the project.

	Federal Way Link Extension Property Acquisition Status							
	Board Ap- proved	Offers Made/In Negotia- tions	Signed Agreesion and Use Posses to date Relocations Required Parcels Vacated					
Total	341	30	3	0	0	10	256	3

^{*}Number totals may differ from other reports due to the timing of reporting periods.

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Sound Transit Board Actions

Board motions and resolutions directly related to Federal Way Link Extension is summarized in the table below.

Motion Number	Description	Date
M2018-21	Execute a contract with South County Transit Partners to provide Design-Build Project Management services for the project in the amount of \$4,604,472, with an approximate contingency of 10%, totaling an authorized contract of \$5,064,919.	Feb 22
M2018-22	Execute a contract amendment with HDR Engineering, Inc to provide professional services for the project in the amount of \$5,795,986 with a 10% contingency, totaling \$6,375,584 for a new total authorized contract amount not to exceed \$49,658,708.	Feb 22

Community Outreach

- Held a neighborhood briefing with Heritage Court in Des Moines and 12 people attended.
- Held meetings with various groups including Hongs Kitchen and Remai Group to discuss project impacts to their properties and City of Kent to discuss updates to the TOD policy.
- Held a Relocation Workshop for displaced residents.

Environmental

None to report.

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Link Light Rail Federal Way Link Extension – Preliminary Engineering

Phase 3 Preliminary Engineering (PE)

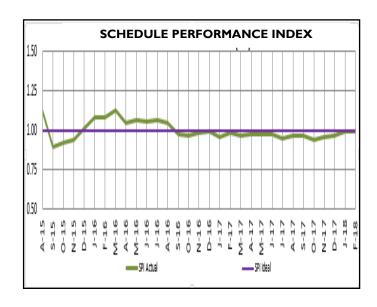
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary engineering of the preferred alternative to Kent/Des Moines and additional engineering as needed to support receipt of environmental approvals. In February 2016, Sound Transit executed an amendment to extend the preliminary engineering effort from Kent/Des Moines to the Federal Way Transit Center.

Phase 3 Key Activities

- Record of Decision (ROD) from FTA received and moving toward Entry to Engineering.
- Resolution of Pre-Final PE submittal comments by third parties and initiation of development of project requirements associated with RFP development for design-build contract.
- Continued discussion with FTA regarding New Starts requirements for Entry to Engineering.
- Agreements setup with affected cities for design review and RFP preparation.
- Ratings submittal package submitted in September.
- Continued property acquisition.

Phase 3 Schedule Performance

The cumulative Schedule Performance Index (SPI) is 1.00 through February 2018, indicating the overall amount of work accomplished is as planned. A new plan will be developed and incorporate new scope to extend the consultant contract for assistance in RFP process of DB contract and in ROW acquisition support .



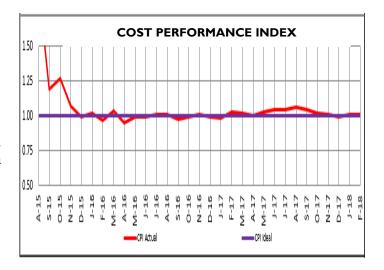
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Link Light Rail Federal Way Link Extension—Preliminary Engineering



Phase 3 Cost Performance

Phase 3 expenditures through February 2018 totaled \$30.2M, approximately 96.3% of the total contract. The Phase 3 percent complete is reported at 97%, with an earned value of \$30.5M. The cumulative Cost Performance Index (CPI) is 1.01 indicating costs are on track with work accomplished. A new plan will be developed and incorporate new scope to extend the consultant contract for assistance in RFP process of DB contract and in ROW acquisition support .



Phase 3 Performance	Cumulative To Date
Amount Invoiced	\$30.2M
% Spent	96.3%
Earned Value	\$30.5M
% Complete	97%
SPI	1.00
CPI	1.01

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Scope
Limits:

City of Tacoma

Alignment:

The Tacoma Link Extension project is a 2.4- mile extension of the existing Tacoma Link system from the Theater District in downtown Tacoma to the Hilltop neighborhood. The extension will travel in street with traffic along Stadium Way, North 1st. Street, Division Avenue, and Martin Luther King Jr. Way.

Stations:

Old City Hall, S. 4th, Stadium District, Tacoma General, 6TH Avenue, Hilltop

District, and St. Joseph.

Systems:

Expansion of the Operations and Maintenance Facility; The at-grade alignment will include additional signals, OCS, traction power, and communications infrastructure.

Budget:

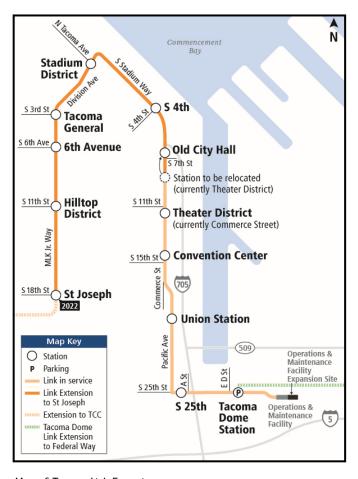
\$217.3 Million Phase Gate 5

Phase:

Final Design and Construction

Const. Starts: 2018

Service: May 2022



Map of Tacoma Link Extension.

Key Project Activities

Final Design

- Design consultant continued submitted IFB package for ST and Third Party review.
- ST staff attended an IFB Readiness Review of the T100 Contact documents.
- Continued work with City of Tacoma to resolve remaining comments from 100% design submittal and finalized City betterment scope.

Pre-Construction Services

ST staff continued work on development of Division 01 specifications and Special Conditions.

Right -of - Way

• Right-of-way property acquisition activities continued as they relate to required temporary construction easements (TCE) along the alignment.

Vehicles

Ongoing meetings with representatives from Brookville on Tacoma Link Extension LRVs.

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Project Cost Summary

In September 2017, Sound Transit Board adopted the Tacoma Link Extension baseline schedule and budget by increasing the authorized project allocation from \$34.6M to \$217.3M. The Tacoma Link project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

Cost Summary by Phase

WBS Phase Elements	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.9	\$6.0	\$6.0	\$16.9	\$0.0
Preliminary Engineering	\$5.6	\$5.6	\$5.6	\$5.6	\$0.0
Final Design	\$10.8	\$10.4	\$8.6	\$10.8	\$0.0
Construction Services	\$9.9	\$0.5	\$0.3	\$9.9	\$0.0
3rd Party Agreements	\$1.5	\$1.1	\$0.6	\$1.5	\$0.0
Construction	\$127.2	\$0.0	\$0.0	\$127.2	\$0.0
Vehicles	\$35.4	\$31.2	\$0.4	\$35.4	\$0.0
ROW	\$3.6	\$2.0	\$1.6	\$3.6	\$0.0
Contingency	\$6.6	\$0.0	\$0.0	\$6.6	\$0.0
Total	\$217.3	\$56.8	\$23.0	\$217.3	\$0.0

Cost Summary by SCC

Project Elements by SCC	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$21.9	\$0.0	\$0.0	\$21.9	\$0.0
20 Stations	\$1.8	\$0.0	\$0.0	\$1.8	\$0.0
30 Support Facilities	\$26.6	\$0.0	\$0.0	\$26.6	\$0.0
40 Sitework & Special Conditions	\$40.0	\$0.0	\$0.0	\$40.0	\$0.0
50 Systems	\$25.0	\$0.0	\$0.0	\$25.0	\$0.0
Construction Subtotal (10 - 50)	\$115.4	\$0.0	\$0.0	\$115.4	\$0.0
60 Row, Land	\$3.6	\$2.0	\$1.6	\$3.6	\$0.0
70 Vehicles (non-revenue)	\$35.4	\$31.2	\$0.4	\$35.4	\$0.0
80 Professional Services	\$56.4	\$23.3	\$21.0	\$56.4	\$0.0
90 Unallocated Contingency	\$6.6	\$0.0	\$0.0	\$6.6	\$0.0
Total (10 - 90)	\$217.3	\$56.6	\$23.0	\$217.3	\$0.0

Risk Management

The Tacoma Link Risk and Contingency Management Plan (RCMP) was completed in 2nd QTR 2017. This establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast.

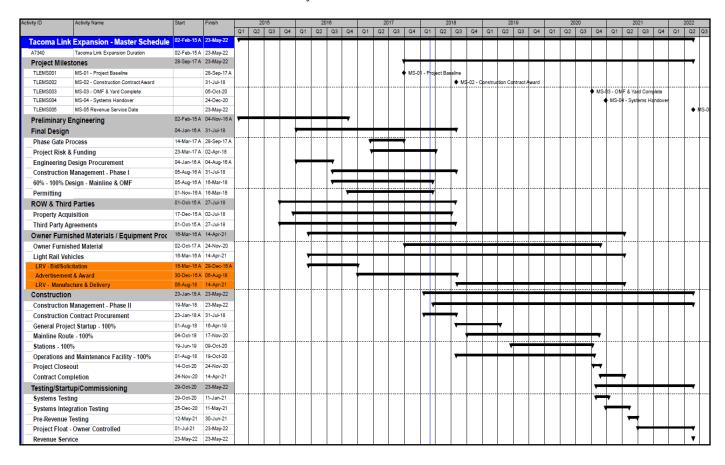
The Baseline Risk Assessment was conducted in May 2017. The 4th QTR 2017 Risk Review Meeting was held in December 2017. The 1st QTR 2018 Risk Review Meeting is scheduled for March 2018.

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Project Schedule

The Master Schedule has been updated through the end of February. The IFB Plans and Specifications are in progress in conjunction with the preparation of the Bid documents. The 100% construction schedule submitted by the designer has been incorporated into the schedule. The schedule also reflects the need to complete the OMF prior to receiving the first LRV. The Revenue Service date remains May 2022.



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Right-of-Way

The Tacoma Link Operations and Maintenance Facility will be expanded to the east and five new vehicles will be purchased. The right-of-way project involves the acquisition, including owner and tenant relocations as appropriate, of a range of property interests. Property interests includes compensable (e.g. fee acquisitions, permanent and temporary construction easements and non-compensable rights - e.g. rights of entry).

As of February 2018, a total of 53 parcels are certified for Tacoma Link Extension. Approximately one property owner will be relocated as part of the project.

	Tacoma Link Extension Property Acquisition Status								
	Board Made/In Agree- sion and Longer Settle- Closings to date					Reloca- tions Vacated			
Total	53	0	4	0	30	0	1	1	0

^{*}Number totals may differ from other reports due to the timing of reporting periods. The 29 offers made in January 2018 were not reflected in the Weekly Production Reports for that month.

Community Outreach

- Participated in City of Tacoma real estate developer meeting.
- Developed TLE business relations strategy for marketing and advertising businesses during construction.
- Provided a project update at the Stadium and Hilltop Business Districts.
- Met Staff at City of Tacoma Links to Opportunity storefront office.
- Sent out an update to the project email list.

Sound Transit Board Actions

Motion Number	Description	Date
M2018-20	Amend the contract with Jacobs Project Management Company to provide Phase 2 construction management services for the construction phase of the Tacoma Link Extension in the amount of \$8,420,219, with a 5% contingency of \$421,011 totaling \$8,841,230, for a new total authorized contract amount	Feb 22

Environmental

None to report.

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Link Light Rail Tacoma Link Extension - Final Design



Final Design

In July 2016 Sound Transit executed a contract with HDR Engineering, Inc. to provide civil and systems final design services for Tacoma Link.

Final Design Key Activities

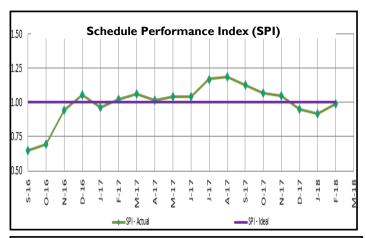
- Civil/Track/Station Design. Civil and track design activities continued to focus on the design of 100% design and resolution and incorporation of review comments.
- Continued coordination meetings with the City of Tacoma.

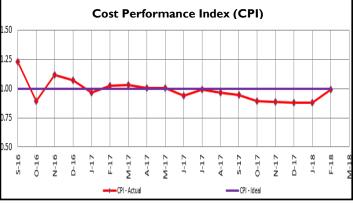
Final Design Schedule Performance

The cumulative Schedule Performance Index (SPI) for the Final Design contract is 0.99 through February, indicating that the contract work performed is behind the original plan. The Consultant was scheduled to complete the design submittals earlier than originally anticipated but 100% submittal was slightly delayed. The Consultant is progressing towards the IFB and anticipate completion in March.

Final Design Cost Performance

Based on Actuals, the Contract expenditures through February totaled \$8.3M (Actuals), approximately 100% of the Final Design contract total. The Final Design contract percent complete reported at the end of February is 98%, with an earned value of \$8.2M. The cumulative Cost Performance Index (CPI) through February is 0.99; indicating expenditures greater than the budgeted cost for work performed. The Civil/Track/Station Design tasks are the greatest driver of the negative CPI. Two change requests were executed to address the increased scope in these tasks. The combination of these two requests was anticipated to be sufficient for HDR to compete the Final Design contract, but additional level of effort on the 100% and IFB submittal was necessary to complete contract. ST and HDR are working to address this additional work.





Phase 3 Performance	Cumulative To-Date
Amount Invoiced	\$8.3M
% Spent	100%
Earned Value	\$8.2M
% Complete	98%
SPI	0.99
CPI	0.99

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Scope

Limits: Federal Way Transit Center to South

Federal Way, Fife, East Tacoma, and

Tacoma Dome

Alignment: The Tacoma Dome Link extends light

rail 9.7 miles from the Federal Way Transit Center to Tacoma adjacent to I-5 with three elevated stations at South Federal Way, Fife, and East Tacoma and one

at grade/retained station at Tacoma

Dome.

Stations: South Federal Way, Fife, and East Taco-

ma, and Tacoma Dome

Systems: Signals, traction power, communications

(SCADA), Operations and Maintenance

Facility South (OMF South)

Budget: \$125.6 Million for Preliminary Engineer-

ing Phase 1—Alternative Development

Phase: Alternative Development

Schedule: Revenue Service– December 2030



Map of Tacoma Dome Link Extension.

Key Project Activities

- Sound Transit Board approved Phase 1– Alternative Development budget in December 2017.
- Phase 1—Alternatives Development phase began in January 2018.
- The Project Management Plan, Quality Management Plan, Earned Value Management Plan, and schedule draft were reviewed and comments were provided.
- Alternative development activities are on-going as per the schedule.
- Alternatives screening process chart is developed to outline timing of level 1 (conceptual) and level 2 (detailed) results and identification of preferred alternative.
- External engagement efforts started and are on-going as planned.

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Project Cost Summary

The Tacoma Dome Link Extension and OMF South project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

Cost Summary by Phase

WBS Phase Elements	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$26.8	\$0.7	\$0.8	\$26.8	\$0.0
Preliminary Engineering	\$87.1	\$10.3	\$0.3	\$87.1	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$5.8	\$0.0	\$0.0	\$5.8	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$0.0	\$0.0	\$6.0	\$0.0
Total	\$125.7	\$11.0	\$1.1	\$125.7	\$0.0

Cost Summary by SCC

Project Elements by SCC	Authorized Project	Commitment to Date	Incurred to Date	Estimated Final Cost	Authorized Allocation vs.
10 Guideway & Track	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
50 Systems	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Subtotal (10 - 50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 Row, Land	\$5.0	\$0.0	\$0.0	\$5.0	\$0.0
80 Professional Services	\$110.9	\$11.0	\$1.1	\$110.9	\$0.0
90 Unallocated Contingency	\$9.8	\$0.0	\$0.0	\$9.8	\$0.0
Total (10 - 90)	\$125.7	\$11.0	\$1.1	\$125.7	\$0.0

Risk Management

The Tacoma Dome Link Extension and OMF South Risk and Contingency Management Plan (RCMP) will establish a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast.

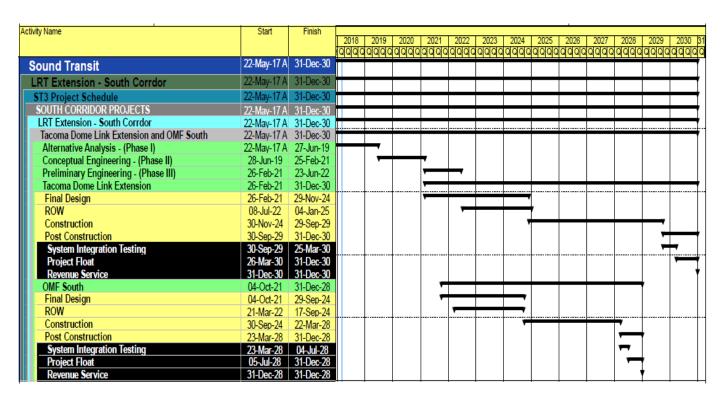
The first risk review workshop is scheduled in the 2nd QTR 2018.

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Project Schedule

The Tacoma Dome Link Extension and OMF South A/E contract has been issued for Phase I Alternative Analysis in January 2018. Alternatives will be identified and prepared for Board Approval in the 2nd QTR 2019. It is expected that an FTA Record of Decision will be issued in the 2nd QTR 2022.



Sound Transit Board Actions

Motion Number	Description	Date
	None to report.	

Environmental

- Coordinating with FTA to obtain their comments on the project Purpose and Need statement.
- Preparing for Early Scoping public and agency meetings and comment period in 2nd QTR 2018.

Community Outreach

- Hosted the first TDLE Elected Leadership Group Meeting.
- Emailed TDLE project email list and posted advertisement on social media to introduce the project and request community representatives for the TDLE stakeholder group.

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Link Light Rail Link Operations and Maintenance Facility: East

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Link Light Rail Link Operations and Maintenance Facility: East



Project Summary

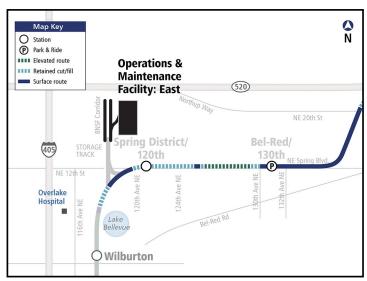
Scope: The Link Operations and Maintenance

Facility: East (OMF East) project, located in the City of Bellevue, includes a 160,000 sq. ft. operations and maintenance facility that will maintain, store and deploy and expanded light rail fleet, including seven LRV service bays, a LRV wash facility and storage for up to 96

LRVs.

Budget: \$449.2 Million (Baselined July 2016) **Schedule**: Project completion December 2020

Phase: Proceed to Construction



Map of OMF East site.

Key Activities

- The MDP issuance is anticipated for March 2018 with a potential two week appeals period.
- A project 3D model has been provide to Sound Transits IT department to study the Wi Fi coverage requirements
- The East Rail Corridor (ERC) interim trail will not be ready for public use even though the DB contractor has completed their work on the trail. King County is anticipating that their portion of the ERC interim trail work will be completed in April
- Conducted a second partnering session this period that includes a wider project team.

Closely Monitored Issues

- Permit schedule for the Master Development Plan (MDP) by City Of Bellevue is still pending approval and is a schedule risk. The MDP issuance is anticipated for March 2018.
- Elements of DB Contractor's proposal (shear wall elimination for future development) may require MOU amendment with City of Bellevue.

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Link Light Rail Link Operations and Maintenance Facility: East

Project Cost Summary

The Adopted Capital Budget for the OMF East is \$449.2M. The OMF East cost is summarized into two cost tables. The first table is in accordance with Sound Transit's Work Breakdown Structure (WBS) displaying the cost summary by phase. The second table summarizes project cost by SCC, in accordance to the FTA Standard Cost Categories (SCC). format. Both tables show figures in millions.

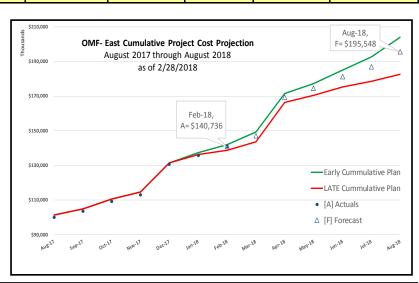
Cost Summary by Phase

WBS Phase Elements	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$17.6	\$17.6	\$3.8	\$3.8	\$17.6	\$0.0
Preliminary Engineering	\$9.5	\$9.5	\$9.0	\$8.6	\$9.5	\$0.0
Final Design	\$0.4	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction Services	\$19.3	\$19.3	\$17.6	\$1.8	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.3	\$0.1	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$222.5	\$26.8	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$100.4	\$99.7	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$353.6	\$140.7	\$449.2	\$0.0

Cost Summary by SCC

Project Elements by Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized v Allocation vs. EFC
10 Guideway & Track Elements	\$2.6	\$2.6	\$4.0	\$0.9	\$4.0	-\$1.5
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities: Yards, Shops	\$140.1	\$140.1	\$123.8	\$9.0	\$145.7	-\$5.6
40 Sitework & Special Conditions	\$43.6	\$43.6	\$39.6	\$5.8	\$41.5	\$2.1
50 Systems	\$43.0	\$43.0	\$38.4	\$2.7	\$38.4	\$4.6
Construction Subtotal (SCC 10-50)	\$229.3	\$229.3	\$205.9	\$18.5	\$229.7	-\$0.4
60 Row, Land, Improvements	\$134.5	\$134.5	\$100.4	\$99.7	\$134.3	\$0.2
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$71.6	\$71.6	\$47.2	\$22.6	\$71.4	\$0.2
90 Unallocated Contingency	\$13.8	\$13.8	\$0.0	\$0.0	\$13.8	\$0.0
Project Total (SCC 10-90)	\$449.2	\$449.2	\$353.6	\$140.7	\$449.2	\$0.0

For February, there has been no change to the projects Estimated Final Costs, this number stands equal to the project budget at \$449.2M. During this period, the project incurred \$5.06M, of which the primary cost drivers were ROW costs amounting to \$0.9M and approximately \$3.5M on the M200 Design and Construction contract.



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Link Light Rail Link Operations and Maintenance Facility: East



Risk and Contingency Management

Risk Management

The Risk Contingency Management Plan (RCMP) established a risk management and oversight process for identifying, assessing, and monitoring risk and develop risk reduction/mitigation plans. Sound Transit (ST) continuously monitors project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost and/or schedule forecast. The project is currently working towards Milestone 2 completing ROW Acquisition and Mass Grading. The OMF East quarterly risk register review meeting for 4th QTR 2017 was held in January 2018. The current top actively managed risk areas are listed below.

- Permitting: Delays in the approval process for permits will impact the project schedule
- *Design*: As the project approaches the 60% design milestone, changes made to scope or design will have greater cost impact than during the earlier design stages.
- *Scope*: Scope increase as a result of Third Parties or ST stakeholders requesting additional work will impact the project schedule and budget.

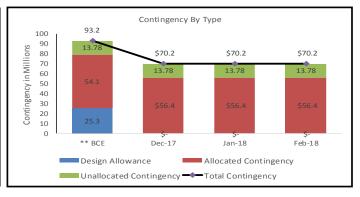
Contingency Status

The Link Operations and Maintenance Facility East was baselined and approved by Sound Transit Board in July 2016 with a total contingency of \$93.2M. Approximately \$21.6M of Design Allowance was consumed and the remaining \$3.7M was allocated into the Design Build Contract. The Project's starting contingency balance as of the Notice to Proceed for Construction was \$71.6M. For this period, there was no change order that required a contingency drawdown. The current contingency balance remains at \$70.2M.

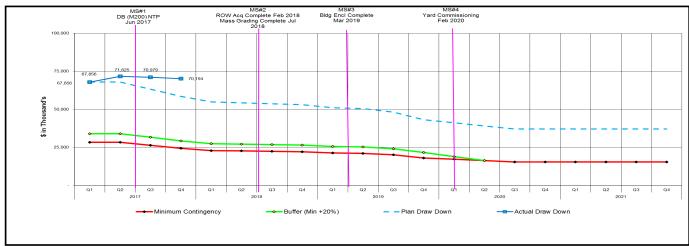
Allocated Contingency (AC) – Contingency dollars amounting to \$1.4M have been drawn down as of February 2018. This resulted in a drop of the remaining allocated contingency to \$56.4M.

Unallocated Contingency (UAC) – The baseline UAC amount of \$13.8M reflects no changes this period.

Contingency	Base	eline	Current		
Status	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$ 25.3	5.6%	\$ -	0.0%	
Allocated Contingency	\$ 54.1	12.0%	\$ 56.4	18.3%	
Unallocated Contingency	\$ 13.8	3.1%	\$ 13.8	4.5%	
Total	\$ 93.2	20.7%	\$ 70.2	22.8%	



Contingency Drawdown (Quarter ending December 31, 2017)

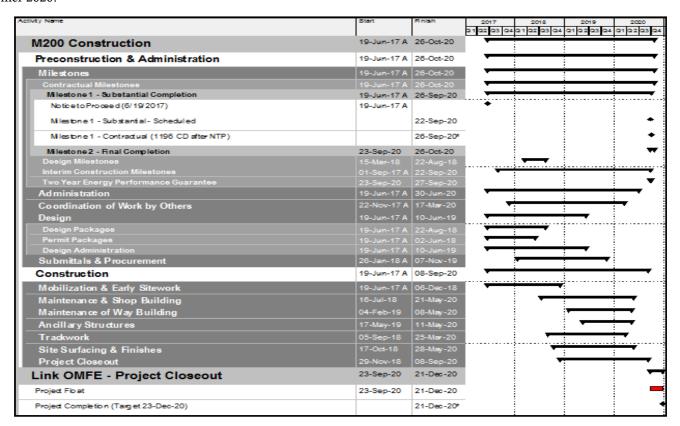


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Link Light Rail Link Operations and Maintenance Facility: East

Project Schedule

All property acquisition and owner-furnished permitting is complete. The schedule for OMF East is now entirely within the M200 contract, which is presented below. The Contractor continues to progress as planned and are forecast to complete a few days ahead of target. The OMF East is expected to be available to begin receiving LRVs as needed in Summer 2020.



Critical Path Analysis

The critical path is now fully within the M200 contract. It runs through site preparation, including demo and abatement of existing structures. After grading is complete, the trackwork in the yard is the critical path, leading into signalization and testing at the end of the project.

tivity Name	Start	Finish	2017	2018	2019	2020
			Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q
M200 Construction	23-Feb-18 A	22-Sep-20				
Preconstruction & Administration	23-Feb-18 A	22-Sep-20				
Milestones	25-Jul-20	22-Sep-20				-
Design	23-Feb-18 A	21-Apr-18		•		
Construction	23-Apr-18	24-Jul-20				
Mobilization & Early Sitework	23-Apr-18	04-Sep-18	[-		
An cillary Structures	23-Mar-20	11-May-20				•
Trackwork	05-Sep-18	20-Mar-20		•		
Project Closeout	12-May-20	24-Jul-20				-
Link OMFE - Project Closeout	23-Sep-20	21-Dec-20				
Project Float	23-Sep-20	21-Dec-20				_
Project Completion (Target 23-Dec-20)		21-Dec-20*	-			

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Link Light Rail Link Operations and Maintenance Facility: East



Right-of-Way

All OMF East properties have now been vacated and are in the project's control. Only administrative functions remain in this phase of the project. This section of the report is now concluded and will be discontinued going forward. The right- of-way program status is summarized below:

Link OMF East Property Acquisition Status									
	Board Ap- proved	Offers Made/In Negotia- tions	Signed Agree- ments	Posses- sion and Use	Admin Settle- ment	Closings to date	Reloca- tions Required	Parcels Vacated	
Total*	11	11	0	0	0	9	32	26	

^{*}Number totals may differ from other reports due to the timing of reporting periods.

Sound Transit Board Actions

Board motions and resolutions directly related to OMF East is summarized in the table below.

Motion Number	Description	Date
	None this period.	

Community Outreach

- OMF East groundbreaking event set for April 4, 2018.
- Property owner (Bellevue School District) contacted regarding the beaver dam. They are aware of the situation and will inform ST of their next steps.
- Public open house for a design and construction update and progress report out slated for 1st or 2nd week of May 2018.

Environmental

• None to report.

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Contract M200 - OMF East Design Build

Current Progress

For February, significant design work was accomplished, the Contractor submitted the 90% design packs for the King County sewer relocation (DP1) and also submitted the 60% design packages for Civil, Trackwork, Systems and Buildings (DP 2,3,4). Additionally, the contractor also continued to work on the permit packages and incorporate the comments from City of Bellevue permitting process.

In February, the DB Contractor continued to work on construction activities related to setting up the TESC and SWPP measures around site, including inlet protection and silt fencing. Majority of the demolition work was completed this month and concrete crushing continued to run through the month. The fencing contractor demobilized this month after achieving substantial completion of the scope of work.

Next Period's Activities

- Tree chipping equipment will be mobilized and all existing vegetation will be chipped and removed.
- Start working on abatement and demolition of contaminated soil at the south end of site.
- Substantially complete the concrete crushing operations next month
- Continue working on 60% and 100% design packages (DP) for DP 1,2,3 and 4.
- Work on the comments received from Sound Transit on the 60% design package submittals and 90% King County Sewer Relocation Design package submittal.

Closely Monitored Issues

- Site infiltration issue: Contractor has submitted an RFC stating differing site conditions on the soil infiltration rate. ST has rejected this change order and currently working on partnering activities to resolve the issue and find a path forward.
- Storm Water Management: The Contractor has submitted an RFP claiming that Administrative Order issued by Department of Ecology (DOE) introduces new requirements that were not identified during bid. ST is currently having meetings with the Contractor to discuss and understand the issue.

Cost Summary

Present Financial Status	Amount
M200 Contractor – Hensel Phelps	
Original Contract Value	\$218,912,000
Change Order Value	\$1,494,995
Current Contract Value	\$220,406,995
Total Actuals (Incurred to Date)	24,675,773
% of Authorized Billed to Date	11.2%
Physical Percent Complete	11.2%
Authorized Contingency	\$21,891,200
Contingency Drawdown	\$1,494,995
Contingency Index	1.64



Clearing and grubbing at the site.

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Link Light Rail Light Rail Vehicle Fleet Expansion



Project Summary

Scope: Design, manufacturing, assembly, inspection,

testing and delivery of 152 low floor light rail vehicles for service requirements of Northgate, East Link and Lynnwood Link Extensions.

Budget: \$740.7 Million (Baseline September 2015,

Amended April 2017)

Schedule: Project completion 3rd QTR 2024

Phase: Manufacturing



Graphic simulation of the new light rail vehicles.

Key Activities

- Preparation for the first article inspection on the car body anticipated in March.
- Completed first article of inspection for drive unit in Germany.
- Continue review of Final Design Reviews.
- Car shell production continued in Sacramento.

Closely Monitored Issues

- Resolution of the jacking points on the LRV noncompliance resolved through change in LRV lift design, commercial issues remains open with Siemens.
- Provision of Wi-Fi facilities (wireless access points, switches, etc.) is needed by others at OMF East and OMF - Forest Street.
- OMF Forest Street yard storage capacity in 2020 may limit Siemens LRV delivery schedule; production progress being monitored closely.

Project Cost Summary

The LRV Fleet Expansion Project has an approved baseline budget of \$740.7M. The project cost is summarized below by two cost categorizations. In the first table, the cost is summarized in accordance with Sound Transit's Work Breakdown Structure (WBS) at the Phase Level. The second table summarizes the project in accordance with the FTA's Standard Cost Category (SCC) format. Both tables below are shown in millions.

In February 2018, the project incurred to date costs increased nominally by about \$109K. The incurred cost increased from \$74.2M to \$74.3M. The majority of this periods cost is attributed to design and inspection in the support of document reviews for the final design review (FDR).

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Vs. EFC
Administration	\$6.4	\$6.4	\$0.8	\$0.6	\$6.4	\$0.0
Construction Services	\$18.0	\$18.0	\$4.8	\$2.8	\$18.0	\$0.0
Vehicles	\$716.3	\$716.3	\$648.2	\$70.9	\$716.3	\$0.0
Total	\$740.7	\$740.7	\$653.8	\$74.3	\$740.7	\$0.0

Totals may not equal column sums due to rounding of line entries.

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Link Light Rail Light Rail Vehicle Fleet Expansion

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Vs. EFC
Construction Subtotal (SCC 10-50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 ROW, Land, Existing Improvements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
70 Vehicles	\$702.8	\$702.8	\$653.0	\$73.7	\$702.8	\$0.0
80 Professional Services	\$6.1	\$6.1	\$0.8	\$0.6	\$6.1	\$0.0
90 Contingency	\$31.7	\$31.7	\$0.0	\$0.0	\$31.7	\$0.0
Capital Total (SCC 10-90)	\$740.7	\$740.7	\$653.8	\$74.3	\$740.7	\$0.0

Totals may not equal column sums due to rounding of line entries.

Risk and Contingency Management

Risk Management

The RCMP established a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. Sound Transit (ST) continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast.

ST is currently updating the qualitative risk register for the quarter ended on December 31, 2017.

Cost Contingency Management

The project's budget was Baselined in September 2015 contained a total of \$78.0M of Total Contingency. The project's Total Contingency is currently at \$70.1M or about 12% of remaining work in the project.

Design Allowance (DA) – This project contains \$0 design allowance.

Allocated Contingency (AC) – The project baseline's allocated contingency was \$46.3M. The current available allocated contingency is \$38.3M. No contingency was utilized this period.

\$100.0

\$78.0

\$31.7

Contingency by Type

\$70.1

\$31.7

\$38.3

Jan-18

\$70.1

\$31.7

\$38.3

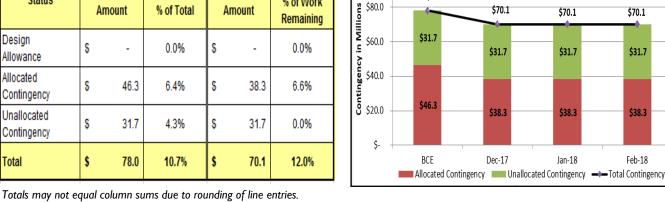
Feh-18

\$70.1

\$31.7

Unallocated Contingency (UAC) – The project baseline's unallocated contingency remained unchanged at \$31.7M.

Contingency	Baseline			Current		
Status		Amount	% of Total		Amount	% of Work Remaining
Design Allowance	\$	-	0.0%	\$	-	0.0%
Allocated Contingency	\$	46.3	6.4%	\$	38.3	6.6%
Unallocated Contingency	\$	31.7	4.3%	\$	31.7	0.0%
Total	\$	78.0	10.7%	\$	70.1	12.0%



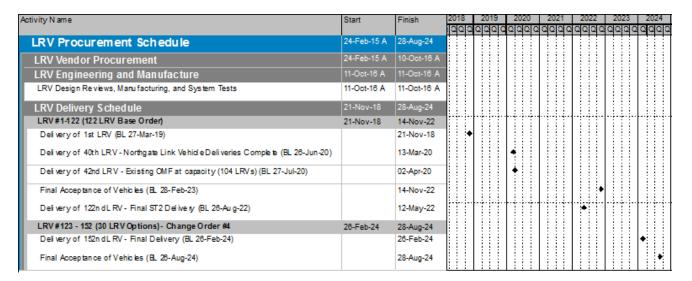
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Link Light Rail Light Rail Vehicle Fleet Expansion



Project Schedule

The LRV Fleet Expansion project schedule is shown below. The progress schedule for February 2018 (see below) was established by using the last monthly schedule submittal and comparing them to the manufacturer weekly tasks and milestones during the weekly progress and coordination meeting. In addition, the manufacturer's monthly reports are reviewed to monitor for potential delays in any of the critically dependent events as identified on the schedule. This period's progress includes completion of preliminary design reviews, continuation of final design reviews and first article of inspections and commencing the assembly of bogie frames for the first LRV.



Critical Path Analysis

The manufacturer is trending substantially ahead of their baseline schedule; the delivery of the first LRV is trending 81 days ahead of the schedule target completion date of March 2019. The delivery of all the light rail vehicles requirements for Northgate Link operations is currently anticipated nearly a year ahead of the start of revenue service and well within the fleet requirement for successful commissioning and testing of the LRVs prior to revenue simulation for Northgate Link. Consequentially, the deliveries of light rail vehicles requirements for East Link operations are also trending ahead of schedule.



Underframe welding.



High floor underframe integration

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Project Staffing – Link Light Rail Program

This section is updated quarterly.

The next update will be in the Agency Progress Report—March 2018.

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Link Light Rail Acronyms



ACRONYMS		ACRONYMS	
AA	Alternative Analysis	GC/CM	General Contractor / Construction
APE	Area of Potential Impact	III/A C	
BCE	Baseline Cost Estimate	HVAC	Heating, Ventilation and Air Condi-
BCWS	Budgeted Cost of Work	ICD	Integration Control Document
BIM	Building Information Modeling	IFB	Issue for Bids
BNSF	Burlington Northern Santa Fe Railway	IFC	Industry Foundation Classes
ССВ	Change Control Board		·
CDF	Controlled Density Fill	IRT	Independent Review Team
CHS	Capitol Hill Station	IWP	Industrial Waste Permit
CMU	Construction Management	JA	Jacobs Associates
CMU CO	Concrete Masonry Unit Change Order		
		JARPA	Joint Aquatic Resource Permit Appli-
CPI CPM	Cost Performance Index Critical Path Method	KCM	King County Metro
	Department of Archaeology & History	LNTP	Limited Notice to Proceed
DAHP	Preservation	LRRP	Light Rail Review Panel
DART	Days Away, Restricted or Modified		
DB	Design -Build	LRT	Light Rail Transit
DBPM	Design-Build Project Management	LRV	Light Rail Vehicle
DECM	Design, Engineering and Construction Management	LTK	LTK Engineering Services
DEIS	Draft Environmental Impact Statement	MACC	Maximum Allowable Construction
DP	Design Package	MDA	Major Discharge Authorization
DPD	Seattle Department of Planning and Development	MLK	Martin Luther King, Jr. Way
DSC	Differing Site Conditions	MOA	Memorandum of Agreement
DSDC	Design Support During Construction		C
DSTT	Downtown Seattle Transit Tunnel	MOS	Minimum Operable Segment
EFC	Estimated Final Cost	MOU	Memorandum of Understanding
EMI	Electro Magnetic Interference	MPPCV	Major Public Project Construction
ERC	East Rail Corridor		
FD FHWA	Final Design	MRB	Material Review Board
	Federal Highway Administration Final Supplemental Environmental Im-	MTP	Montlake Triangle Project
FSEIS	pact Statement	MUP	Master Use Permit
FFGA	Full Funding Grant Agreement		
FTA	Federal Transit Administration		
FTE	Full Time Employee		

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Link Light Rail Acronyms

ACRONYMS		ACRONYMS	
NB	Northbound	SIP	Street Improvement Permitting
NCR	Notification of Change Report	SPI	Schedule Performance Index
NCTP	North Corridor Transit Partners	SR	State Route
NEPA	National Environmental Policy Act	ST	Sound Transit
NOAA	National Oceanic and Atmospheric Administration	START	Seattle Tunnel and Rail Team
NTP	Notice to Proceed	SWI	Stacy & Witbeck, Inc.
OCS	Overhead Catenary System	TBM	Tunnel Boring Machine
OMF	Operations and Maintenance Facility	TCE	Temporary Construction Easement
OMSF	Operations and Maintenance Satellite Fa-	TE	Traction Electrification
	cility	TFK	Traylor Frontier Kemper Joint Venture
PE	Preliminary Engineering	TOD	Transit Oriented Development
PEP	Project Execution Plan Planning, Environment and Project De-	TVM	Ticket Vending Machine
PEPD	velopment	UAC	Unallocated Contingency
PMOC	Project Management Oversight Consultant	U-Link	University Link project
PSST	Pine Street Stub Tunnel	UDS	University District Station
QA	Quality Assurance	USFWS	U.S. Fish and Wildlife Service
QC	Quality Control	UW	University Of Washington
QTR	Quarter	UST	Underground Storage Tank
RE	Resident Engineer	UWS	University of Washington Station
		VE	Value Engineering
RFC	Request for Change	VECP	Value Engineering Cost Proposal
RFD	Request for Deviation	WBS	Work Breakdown Structure
RFI	Request for Information	WDFW	Washington Department of Fish and
RFP	Request for Proposal	WCDOT	Wildlife Washington Department of Transporta- tion
RFQ	Request for Qualifications	WSDOT	
RIR	Recordable Injury Rates		
RMP	Risk Management Plan		
ROD	Record of Decision		
ROW	Right of Way		
SB	Southbound		
SCADA	Supervisory Central and Data Acquisition		
SCC	Standard Cost Categories		
SCL	Seattle City Light		
SDEIS	Supplemental Draft Environmental Impact Statement		
SEPA	State Environmental Policy Act		

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