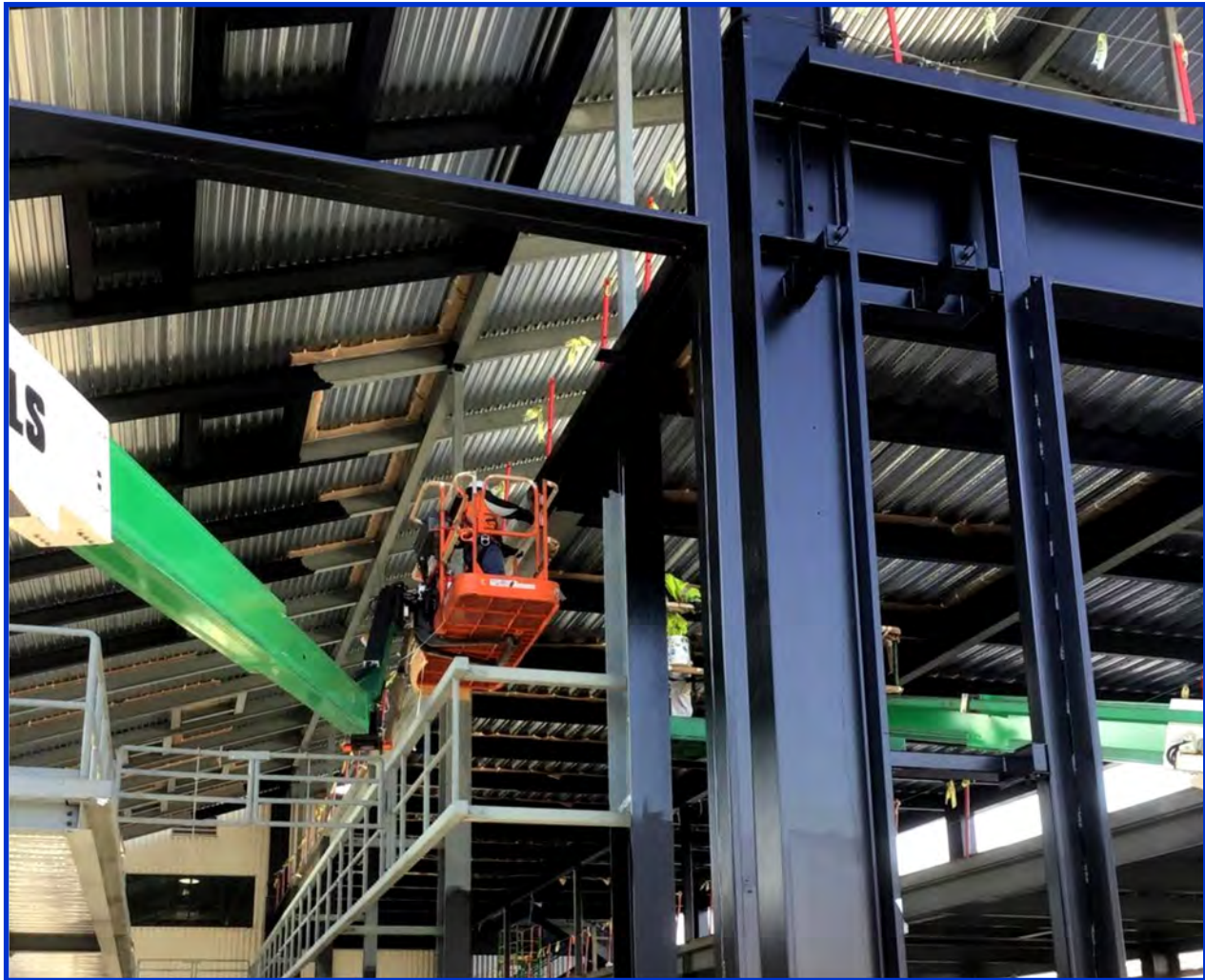


Progress Report

Link Light Rail Program



Ongoing Painting in the Operations Maintenance Facility (Hilltop Tacoma Link Ext.)

October | 2019





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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. The Sound Transit Board adopted the baseline capital budget of \$2.77B on May 24, 2018.

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 Station is forecast for June 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: This project builds a new light rail from the Redmond Technology 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 ST Board adopted the baseline capital budget of \$1.53B on October 25, 2018.

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.

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 Sound Transit Board adopted the baseline capital budget of \$2.45B on September 27, 2018.

Hilltop Tacoma Link Extension: The Hilltop 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.



Link Light Rail Program Overview

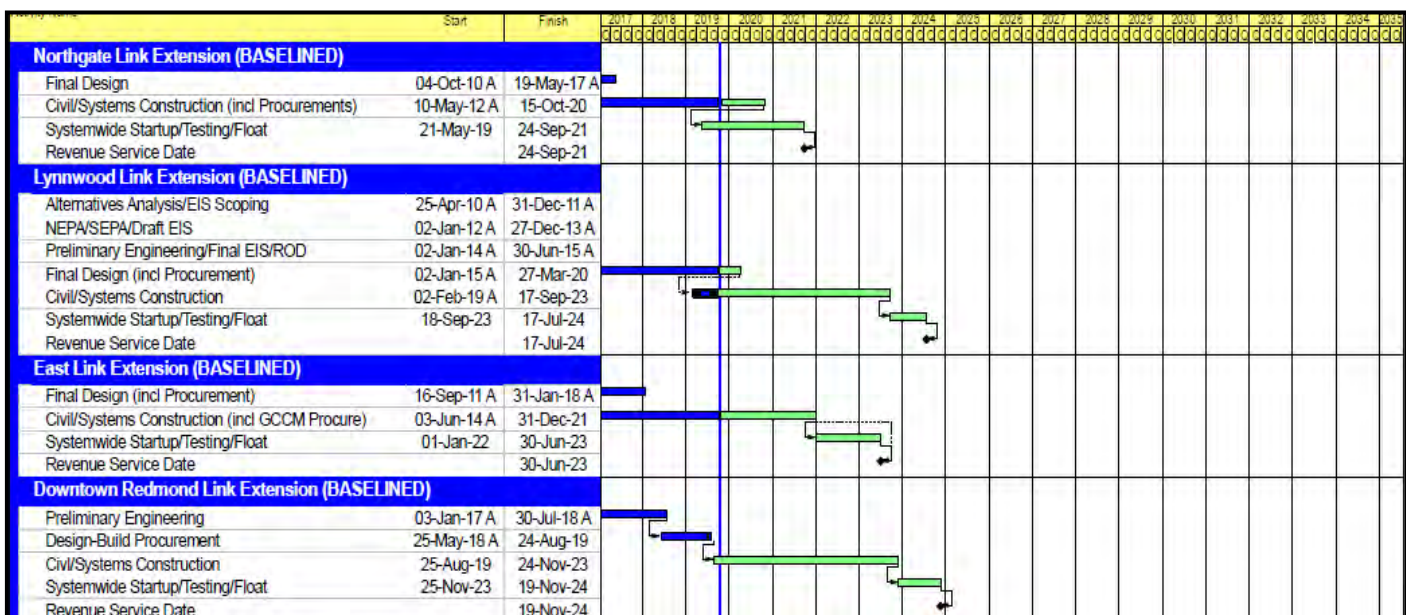
Program Budget

Project figures for active projects are represented in millions below.

Project	Authorized Project Allocation	Commitment to Date	Incurred to Date	Forecast to Complete	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
University Link Extension	\$1,756.0	\$1,519.1	\$1,514.7	\$31.4	\$1,550.5	\$205.5
Northgate Link Extension	\$1,899.8	\$1,674.9	\$1,536.7	\$172.4	\$1,847.3	\$52.5
Lynnwood Link Extension	\$2,771.6	\$2,198.9	\$467.9	\$572.7	\$2,771.6	0
East Link Extension	\$3,677.2	\$3,074.9	\$2,180.7	\$602.2	\$3,677.2	0
Downtown Redmond Link Ext.	\$1,530.0	\$858.4	\$98.7	\$671.6	\$1,530.0	0
West Seattle and Ballard Link Ext.	\$285.9	\$95.0	\$46.3	\$193.2	\$285.9	0
Federal Way Link Extension	\$2,451.5	\$1,497.0	\$290.7	\$954.5	\$2,451.5	0
Hilltop Tacoma Link Extension	\$217.3	\$191.0	\$92.9	\$26.3	\$217.3	0
Tacoma Dome Link Extension	\$125.7	\$54.0	\$17.5	\$71.7	\$125.7	0
Link O & M Facility: East	\$449.2	\$361.3	\$266.4	\$87.9	\$449.2	0
LRV Fleet Expansion	\$740.7	\$667.9	\$148.3	\$72.8	\$740.7	0
Total Link	\$15,904.9	\$12,192.5	\$6,660.8	\$3,456.7	\$15,646.9	\$258.0

Program Schedule

Schedules for active projects are summarized below.

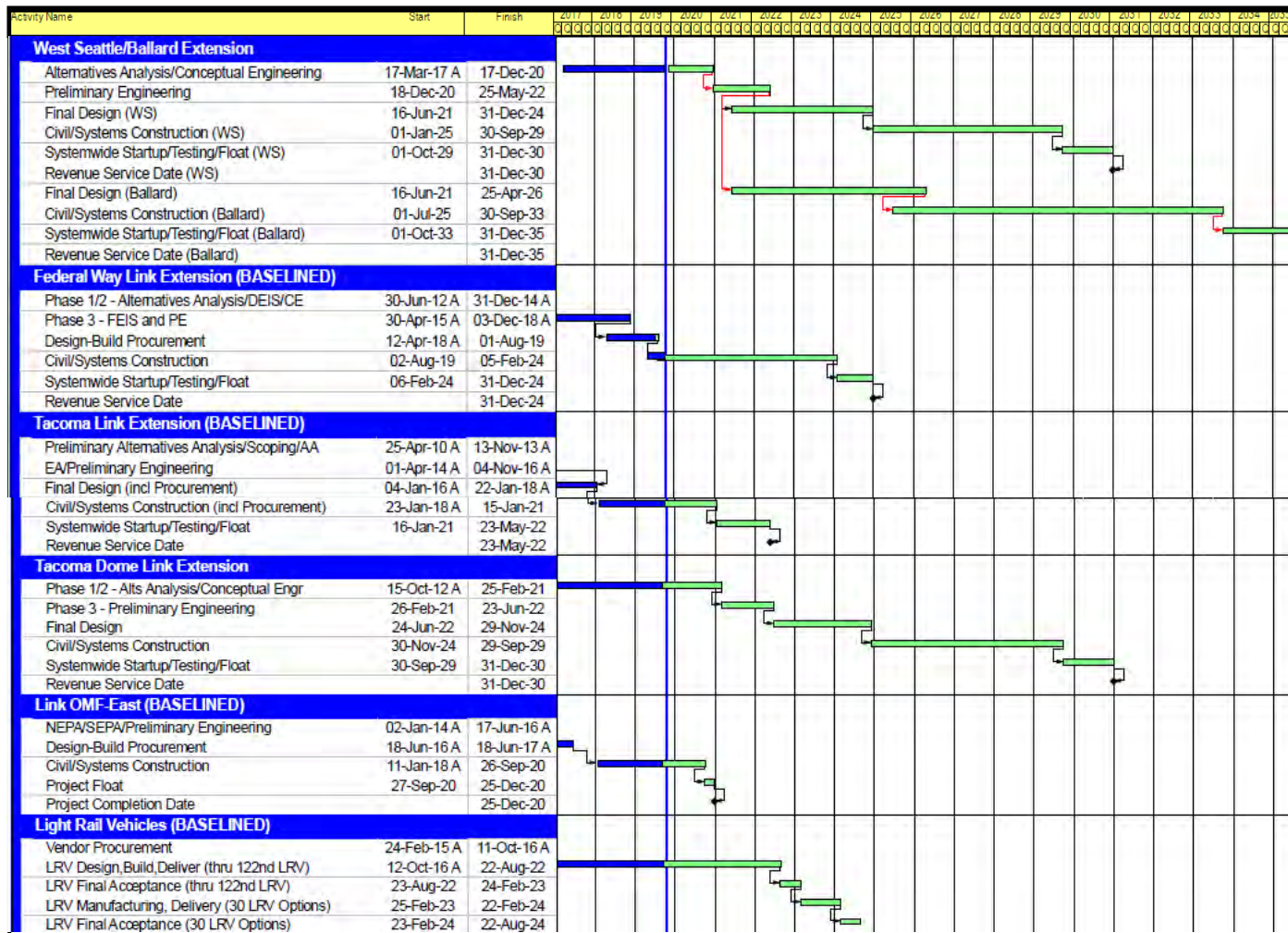


Link Light Rail Program Overview



Program Schedule

Schedules for active projects are summarized below.



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Link Light Rail University Link Extension

Project Summary

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) campus near Husky Stadium.

Tunnels Two twin bored tunnels. Two contract segments: 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 Two 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.

Systems 27 LRV; direct fixation tracks, signals, traction electrification, and SCADA communications

Budget \$1.948 billion including finance cost (capital subtotal of \$1.756 billion)

Schedule Revenue Service began March 19, 2016



Map of Project Alignment

Key Project Activities

- Certificate of Occupancy (C of O): University Link continues to operate under a temporary certificate of occupancy until all permit requirements are fully met. All C of O for stations has been issued. The request for system/tunnel C of O for the University Link, continues to await for Seattle Department of Transportation's approval. Seattle Fire Department has recommended for its approval.
- Miscellaneous follow-on commitments and restoration work remains including but not limited to the following: Additional UW escalator work, decommissioning of monitoring wells, restoration of the systems staging area on Pine Street, power reliability and vibration monitoring and other follow up on various minor commitments from the Record of Decisions.
- Before and After Study continues to progress. FTA's recommended "on to off" data collection to expand the survey data to more accurately reflect total ridership were incorporated. Study is complete. Report will be submitted in the 4th Quarter 2019.

Project Cost Summary

The 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.

University Link’s 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, the project expenditure was negligible, total project expenditure remain at \$1.51B (Finance Cost excluded). Current activities continues to pertain to close out and miscellaneous follow on work. The construction EFC continues to be approximately \$1.02B. This trend continues to hold as the project is substantially complete with only miscellaneous follow on scope and commercial issues remaining. The Total Incurred to Date for the Construction Phase is approximately \$996M and LRV is at about \$99.2M. Cost of LRV repairs were excluded from this project and tracked independently.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$115.2	\$113.6	\$84.0	\$83.9	\$88.2	\$25.4
Preliminary Engineering	\$24.4	\$24.3	\$24.3	\$24.3	\$24.3	\$0.0
Final Design	\$77.9	\$90.3	\$86.8	\$86.8	\$88.0	\$2.3
Construction Services	\$68.5	\$94.8	\$86.6	\$86.6	\$88.4	\$6.4
3rd Party Agreements	\$18.6	\$18.6	\$11.7	\$11.3	\$13.2	\$5.4
Construction	\$1,180.0	\$1,158.2	\$1,000.2	\$996.2	\$1,019.7	\$138.5
Vehicles	\$103.9	\$103.9	\$99.2	\$99.2	\$101.9	\$2.0
ROW	\$167.3	\$152.3	\$126.4	\$126.4	\$126.8	\$25.5
Capital Total	\$1,756.0	\$1,756.0	\$1,519.1	\$1,514.7	\$1,550.5	\$205.5
Finance Cost	\$191.7	\$191.7	\$191.7	\$174.9	\$191.7	\$0.0
Project Total	\$1,947.7	\$1,947.7	\$1,710.8	\$1,689.6	\$1,742.2	\$205.5

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

Construction commitment under the SCC format remains relatively unchanged at about \$1B. Construction SCC expenditures to date is approximately \$984 this period and miscellaneous follow on work project level commitments prior to close out. Total capital cost incurred to date including non-construction cost (SCC 60 thru 90) is now just over \$1.51B or about 86% of total project budgeted scoped (Finance Cost excluded). Total project cost incurred to date at the end of this period including Finance Cost is at \$1.69B. The financing cost Incurred to Date is about \$175M. University Link EFC continues to be projected to close out with at least \$205M under budget excluding financing cost.

Link Light Rail University Link Extension



Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$626.8	\$450.5	\$456.5	\$456.4	\$461.6	(\$11.2)
20 Stations	\$366.3	\$350.8	\$349.2	\$347.3	\$353.1	(\$2.4)
30 Support Facilities: Yards,	\$7.0	\$24.8	\$23.5	\$23.5	\$24.8	\$0.0
40 Sitework & Special Condi-	\$59.0	\$67.4	\$55.9	\$55.2	\$55.2	\$12.2
50 Systems	\$69.6	\$116.4	\$102.0	\$102.0	\$101.9	\$14.6
Construction Subtotal (10 -	\$1,128.8	\$1,009.9	\$987.1	\$984.4	\$996.6	\$13.3
60 Row, Land, Existing Im-	\$167.3	\$126.6	\$126.4	\$126.4	\$125.8	\$0.8
70 Vehicles	\$99.8	\$100.2	\$99.9	\$99.9	\$100.2	\$0.0
80 Professional Services	\$306.4	\$346.6	\$305.7	\$304.0	\$316.5	\$30.1
90 Unallocated Contingency	\$53.7	\$172.8	\$0.0	\$0.0	\$11.5	\$161.3
Capital Total (10 - 90)	\$1,756.0	\$1,756.0	\$1,519.1	\$1,514.7	\$1,550.5	\$205.5
100 Finance Cost	\$191.7	\$191.7	\$191.7	\$174.9	\$191.7	\$0.0
Project Total	\$1,947.7	\$1,947.7	\$1,710.8	\$1,689.6	\$1,742.2	\$205.5

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Link Light Rail Northgate Link Extension

Project Summary

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 UW Station, continues under UW campus, then north to a portal at NE 94th Street, then transitioning to an aerial structure north to Northgate Mall.

Stations U District Station (UDS)
Roosevelt Station (RVS)
Northgate Station and Parking Garage

Systems Signals, track electrification, and SCADA communications

Phase Construction

Budget \$1.899 Billion

Schedule Revenue Service: September 2021



Map of Project Alignment

Key Project Activities

- **U District Station/UW Campus (N140):** In the north area, crews continued installation of stone cladding on head house exterior. In the central area, crews continued installation of metal ceiling panels on Basement Level 2 ceiling. Crews commenced installation of Escalators 5 and 6 at south circulation tube.
- **Roosevelt Station (N150):** Crews continued installation of misc. exterior finishes. Crews continued Level 2 commissioning activities and continued closing out punchlist items.
- **Northgate Station (N160): Station:** At the main station Elcon the electrical contractor continues conduit lighting and fire alarm. Crews continue with tile installation in Zone 4 of the platform while Mid-American installed rubber handrails along Escalator 1.
- **Trackwork (N180):** Northbound and Southbound track is complete throughout work areas across the Northgate alignment. Crews continue installing the pedestrian cross panels at the north and south ends of the trackway.
- **Environmental:** Environmental and safety site walks conducted on all Northgate contracts.

Closely Monitored Issues

N830 Northgate Systems Construction: The ramp-up of labor for systems construction on Northgate – The Contractor provided plans to increase labor over the next three weeks, which appears to address concerns. The construction management consultant will continue to monitor the progress closely in conjunction with the actual production on site to ensure adequate progress.

Project Cost Summary

The project cost is summarized in two cost categories. The first table summarizes cost in accordance with Sound Transit’s budget 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.

The Estimated Final Cost (EFC) for the project as of this reporting period is \$1,847.3 M, which is \$52.5 M below the current project budget, unchanged since last period. This period approximately \$14.4 M was incurred, primarily on the major construction and construction support contracts.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$144.9	\$130.4	\$78.5	\$77.8	\$129.5	\$0.9
Preliminary Engineering	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$0.0
Final Design	\$132.2	\$137.2	\$123.1	\$119.7	\$132.7	\$4.5
Construction Services	\$118.3	\$118.3	\$103.0	\$88.1	\$116.9	\$1.4
3rd Party Agreements	\$11.8	\$11.8	\$8.4	\$7.2	\$11.4	\$0.4
Construction	\$1,343.0	\$1,352.5	\$1,245.6	\$1,127.5	\$1,335.1	\$17.4
ROW	\$112.3	\$112.3	\$101.2	\$101.2	\$106.7	\$5.6
Project Contingency	\$22.2	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
Total	\$1,899.8	\$1,899.8	\$1,674.9	\$1,536.7	\$1,847.3	\$52.5

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$595.6	\$548.2	\$517.2	\$506.1	\$531.7	\$16.5
20 Stations	\$376.1	\$425.1	\$433.4	\$396.6	\$455.2	-\$30.2
30 Support Facilities: Yard, Shop	\$5.3	\$6.1	\$6.5	\$6.5	\$6.5	-\$0.3
40 Sitework & Special Conditions	\$140.8	\$230.7	\$170.4	\$160.2	\$194.3	\$36.4
50 Systems	\$110.9	\$98.5	\$107.7	\$49.1	\$117.1	-\$18.6
Construction Subtotal (10 - 50)	\$1,228.7	\$1,308.6	\$1,235.1	\$1,118.4	\$1,304.8	\$3.8
60 Row, Land, Existing Improvements	\$119.9	\$110.9	\$101.2	\$101.2	\$105.5	\$5.4
80 Professional Services	\$420.7	\$431.6	\$338.6	\$317.1	\$424.3	\$7.3
90 Contingency	\$130.4	\$48.7	\$0.0	\$0.0	\$12.7	\$36.0
Total (10 - 90)	\$1,899.8	\$1,899.8	\$1,674.9	\$1,536.7	\$1,847.3	\$52.5

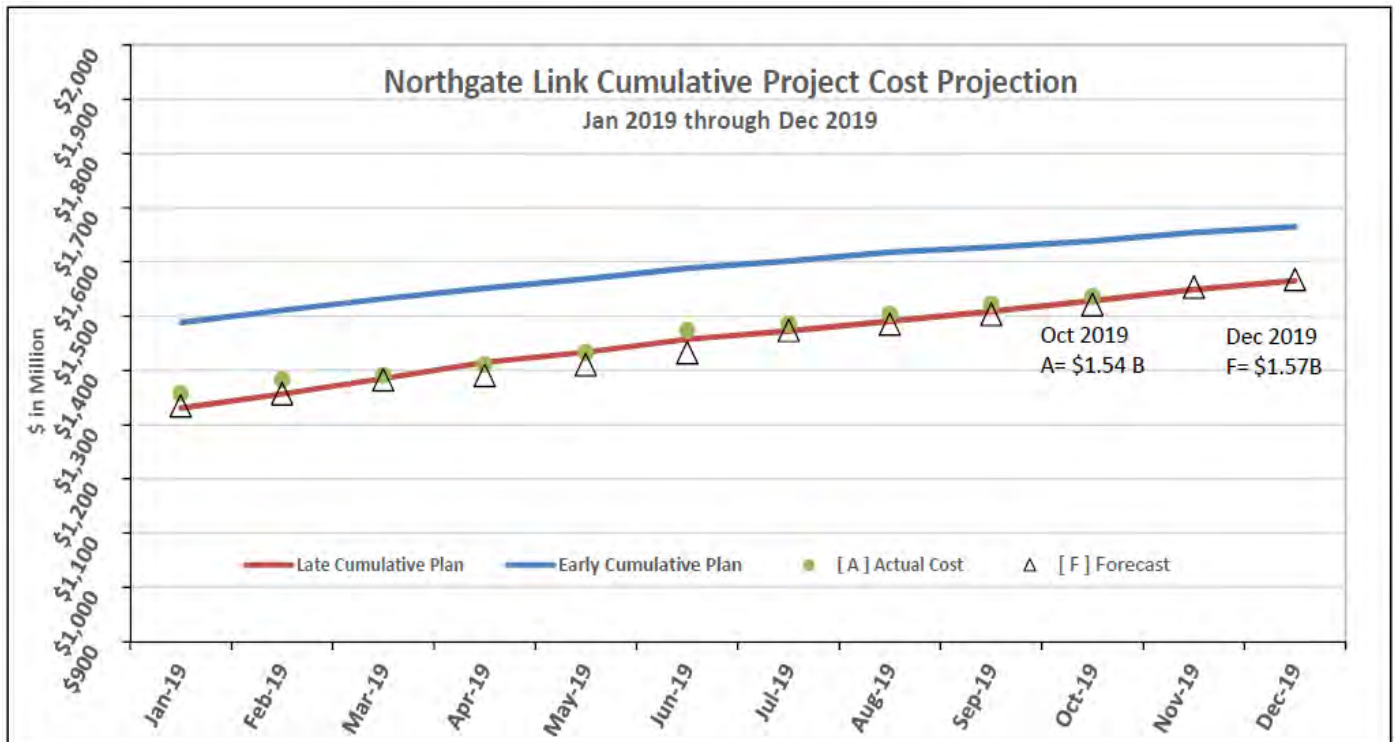
Link Light Rail Northgate Link Extension



Project Cash Flow Projection

The Northgate Link cost aligns with the planned expenditures as construction activities continue.

Total project cost to date reached \$1.54 B of which about \$1.13 B (74%) is attributed to construction. The project cost is currently predicted to increase to approximately \$1.57 B by December 2019, reflecting continued active construction activities.



Risk Management

The 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 to continuously monitor project status and associated risks. The top project-wide risks are:

- Delays to closeout documentation (e.g. permits, warranties, O&M manuals, etc.) – cost and schedule risk.
- Coordination with third parties (e.g. City of Seattle, WSDOT, UW etc.). This risk includes mitigation/restoration requests and extended submittal/permit reviews.
- Coordination of system installation, integration, and testing.
- Completion of station finishes before final systems installation could lead to rework.
- Long lead procurement items for systems (e.g. communications, traction power, signal bungalows, etc.) could cause delays.

Contingency Management

The Northgate Link project budget was baselined in 2012 with a total contingency of \$396.2M.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA has been fully depleted and all major contracts have been awarded.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties.

In this period, AC decreased by \$1.0 M, due to change orders and updates to contract-level estimates at completion. UAC was unchanged in this period.

The overall UAC balance remains well above both the minimum and the buffer zone contingency levels.

Contingency Status (Monthly)

Type	Baseline		Current Status	
	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$113.9	6.0%	\$0.0	0.0%
Allocated Contingency	\$184.0	9.7%	\$130.6	40.2%
Unallocated Contingency	\$98.3	5.2%	\$21.4	6.6%
Total:	\$396.2	20.9%	\$152.0	46.8%

Contingency by Type

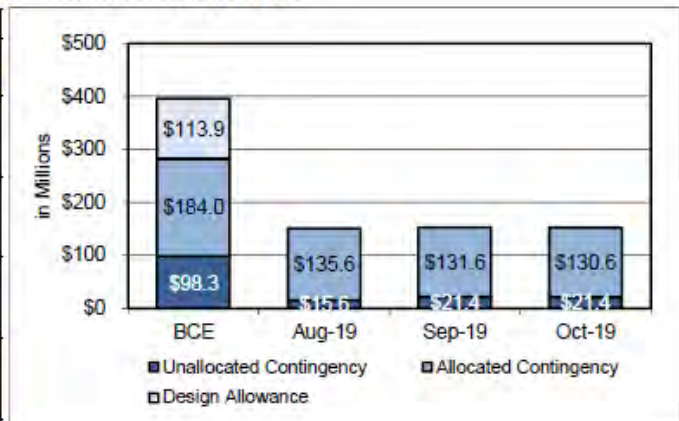
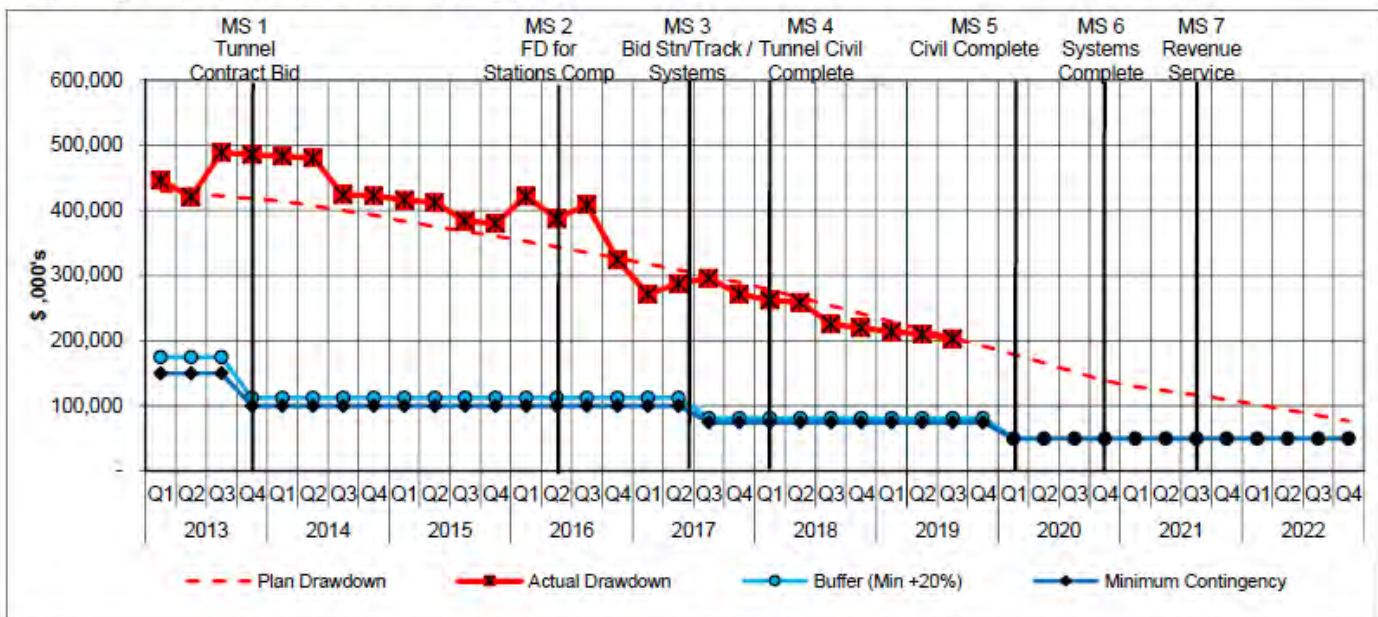


Table figures are shown in millions.

Contingency Drawdown (Quarterly)



Link Light Rail Northgate Link Extension

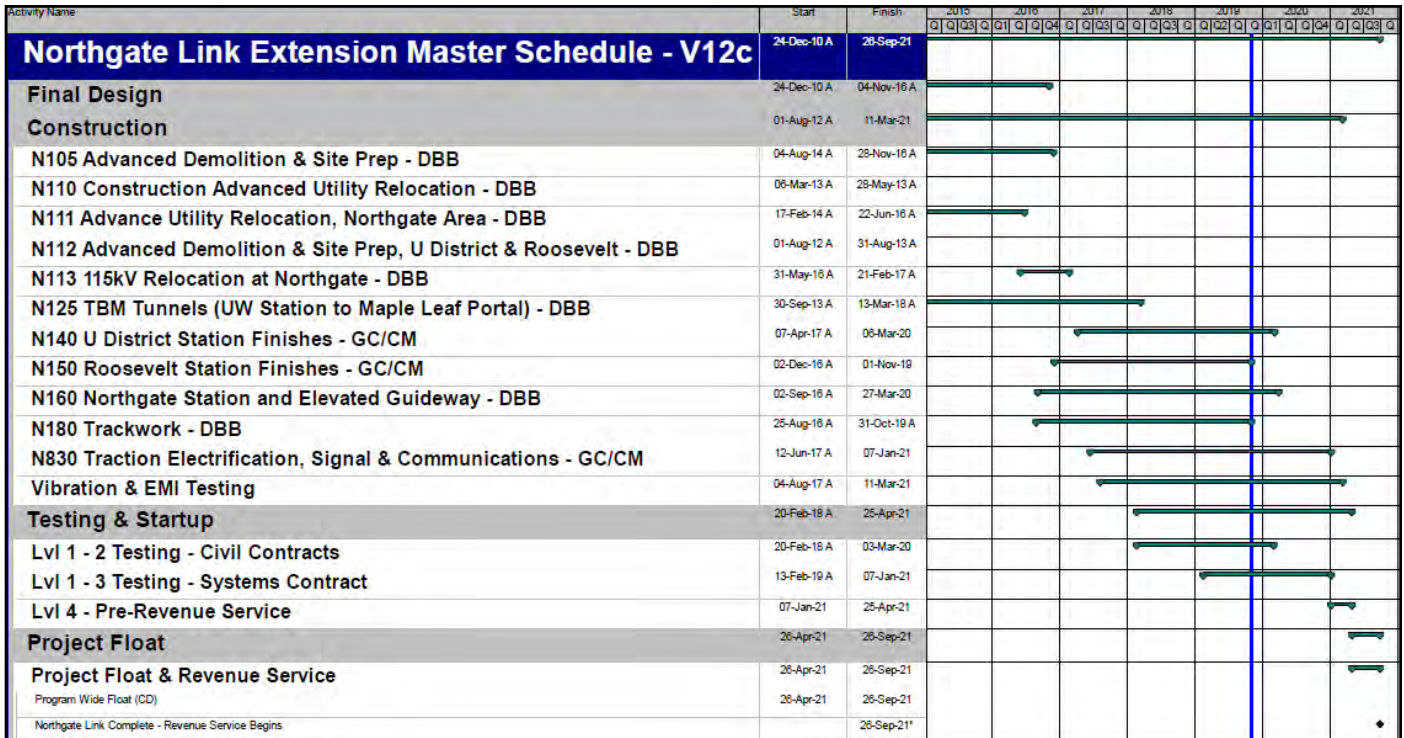


Project Schedule

In October 2019, the physical percent complete for all Northgate Link construction contracts increased from 88.8% to 90.2%.

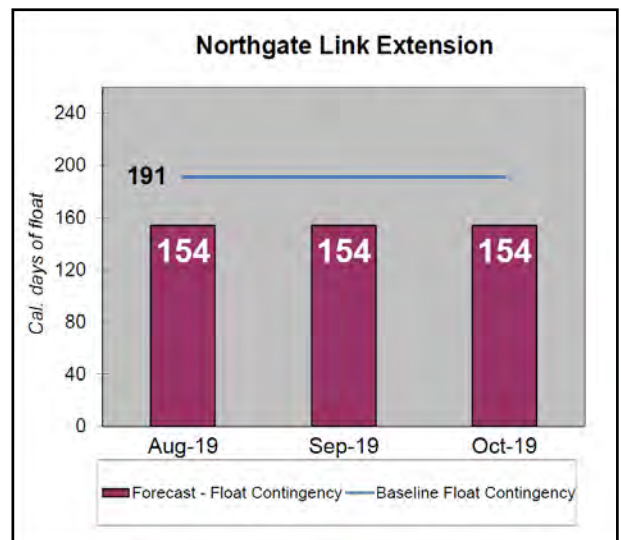
Completion of the civil construction remains in late 3rd QTR 2020, with systems construction & testing currently forecast to be complete in late 4th QTR 2020 as planned.

The Revenue Service Date remains late September 2021.



Project Float

The Northgate Link Project currently retains 154 days of un-allocated project float. The next significant re-evaluation of project float will likely occur as the rail activation plan continues to develop. Currently the project remains on schedule.



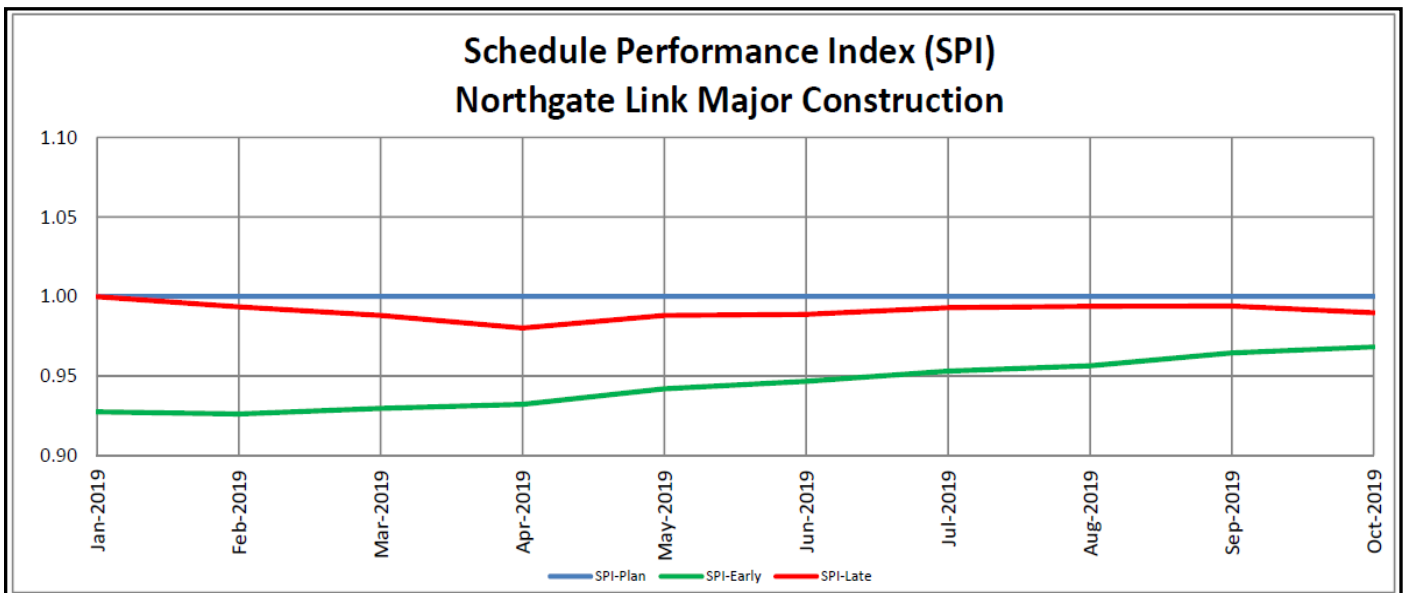
Critical Path Analysis

The critical path for Northgate Link is holding steady with systems installation driving the testing & commissioning, preceding the pre-revenue service period. Procurement, manufacturing, and installation of the signal systems continues to be the driver of the critical path. The civil contractors have turned over the tunnels and trackwork to the systems contractor and Overhead Catenary Systems (OCS) installation is underway, along with final trackwork punchlist activities within the tunnel.

Activity ID	Activity Name	Start	Finish	2020												2021											
				O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
Northgate Link Extension Master Schedule																											
Construction																											
N830 Traction Electrification, Signal & Communicati																											
Testing & Startup																											
Lvl 1 - 3 Testing - Systems Contract																											
Northgate Link Rail Activation																											
Project Delivery																											
N830 - Systems																											
Activation Phase																											
Pre-Revenue Service																											
Revenue Service																											
Project Float																											
Revenue Service																											
N830/E750 - Systems																											
N830 Project																											
N830 Engineering																											
N830 Construction																											

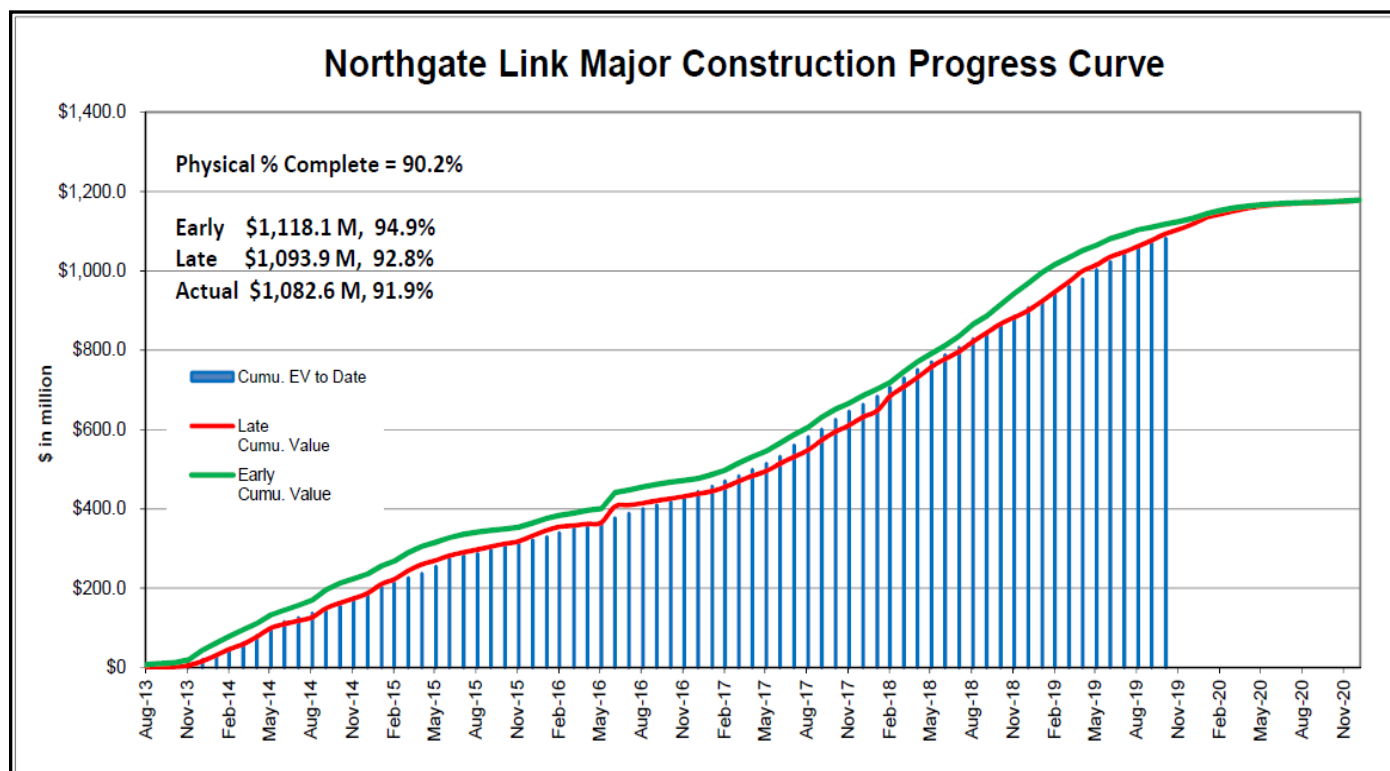
Schedule Performance Index

The early Schedule Performance Index (SPI) for the project is at 0.97 for this period, and the late SPI is at 0.99, showing that in general, performance continues to be satisfactory. Both the early and late numbers have been trending within a range of 0.06 above or below the current period numbers throughout the year.



Cost Progress Analysis

Overall Northgate Link major construction percent complete analysis is based on a weighted measurement among the six major construction contracts' schedules, durations and costs. The graph below shows the aggregate cost progression for these construction contracts is trending toward the late projection as drawn from the master schedule.



Community Outreach

Northgate Link Extension Alignment:

- Tabling for National Hockey League (NHL) press event. (10/1)

University District Station (N140):

Distributed construction alerts for the following activities around station site:

- Final restoration of alleyway between NE 43rd and NE 45th Streets.

Roosevelt Station (N150):

Distributed construction alerts via project page, government delivery list server, email, and door to door for the following activities around the station site:

- Major traffic reroute for NE 67th Street.
- Update: Extended sidewalk closure on Roosevelt Way NE and traffic reroute for NE 67th Street.
- Sidewalk closure on portion of Roosevelt Way NE near Roosevelt Station.
- Ramp and sidewalk work on 12th Ave NE near Roosevelt High School.

Northgate Station (N160):

Distributed construction alert via project page, gov delivery list, email, and door to door for:

- Night-time closure of portion of 1st Ave NE, NE 100th and NE 103rd streets in October.

Sound Transit Board Actions

Board Action	Description	Date
	No actions this period.	

Construction Safety

Data/ Measure	October 2019	Year to Date	Project to Date
Recordable Injury/Illness Cases	1	8	112
Days Away From Work Cases	0	0	6
Total Days Away From Work	0	0	397
First Aid Cases	3	30	182
Reported Near Mishaps	1	25	146
Average Number of Employees on Worksite	398	-	-
Total # of Hours (GC & Subs)	72,638	901,822	4,941,850
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	2.75	1.77	4.53
Lost Time Injury (LTI) Rate	0.00	0.00	0.24
Recordable National Average		3.00	
LTI National Average		1.20	
Recordable WA State Average		6.00	
LTI WA State Average		1.90	

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.

Major Construction Contract Packages

Below are the major construction contract packages for the project 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. (Complete)

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 UW 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.



N160 – Installing sliding glass doors for elevator.

Contract N140—U District Station Finishes

Current Progress

The N140 Contractor, Hoffman Construction, is continuing architectural work above grade as well as mechanical, electrical, and plumbing (MEP) work below grade.

- Continued installation of Elevator 2.
- Continued installation of doors and hardware throughout basement levels.
- Continued installation of Formed Metal Enclosure (FME) structural steel in multiple areas in the station.
- Continued installation of cement wall panels at south headhouse.
- Continued installation of water main in Brooklyn Ave. alignment.

Schedule Summary

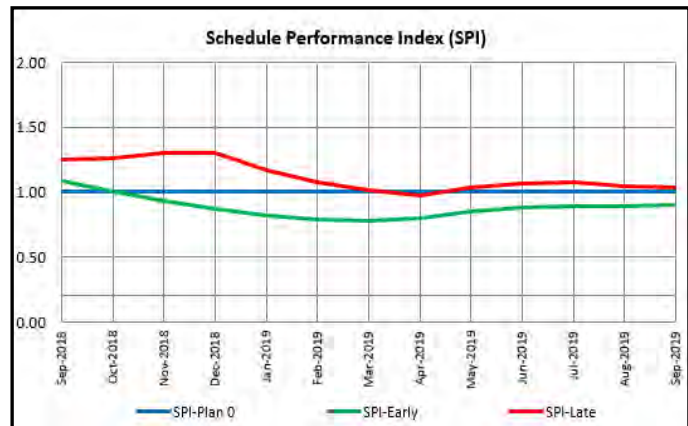
The October schedule continues to forecast an on-time achievement of Substantial Completion with the project 83% complete. The team is continuing to work on sequencing that will minimize the impact of fabrication delays to Stair 8. At this time, the systems contractor does not foresee any significant delay due to the stair installation. Emergency Ventilation Systems testing is also expected to proceed on schedule.

Activity Name	OD	RD	Start	Finish	2017		2018				2019				2020			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
N140 - U-District Station Finishes	849	189	10-Feb-17 A	26-Jun-20														
MILESTONES	0	0	06-Mar-20	06-Mar-20														
Milestone 4 - Substantial Completion	0	0		06-Mar-20*														
PRECONSTRUCTION	0	0	17-Jul-17 A	17-Jul-17 A														
Precon - Site Access Granted (Construction NTP)	0	0	17-Jul-17 A															
CONSTRUCTION	849	189	10-Feb-17 A	26-Jun-20														
C. BL2 - Remove Composite Temp Work Deck at Mezz	20	0	16-Aug-19 A	13-Sep-19 A														
Structure	738	78	10-Feb-17 A	22-Jan-20														
EXTERIOR SHELL / SKIN	266	74	28-Dec-18 A	16-Jan-20														
INTERIORS	457	154	23-Jul-18 A	07-May-20														
ELEVATORS	180	106	17-Jun-19 A	02-Mar-20														
ESCALATORS	471	144	18-Jun-18 A	23-Apr-20														
STAIRS	431	4	10-May-18 A	22-Jan-20														
SITWORK	497	170	18-Jun-18 A	01-Jun-20														
START-UP & COMMISSIONING	253	189	01-Jul-19 A	26-Jun-20														

Schedule Performance Index

This period, the SPI early is at 0.92 and the SPI late is 1.01.

The early index indicates that the contractor has performed less work than planned compared to the “early finish” schedule. The late index indicates that the contractor has performed more work than planned compared to the “late finish” schedule.



Next Period's Activities

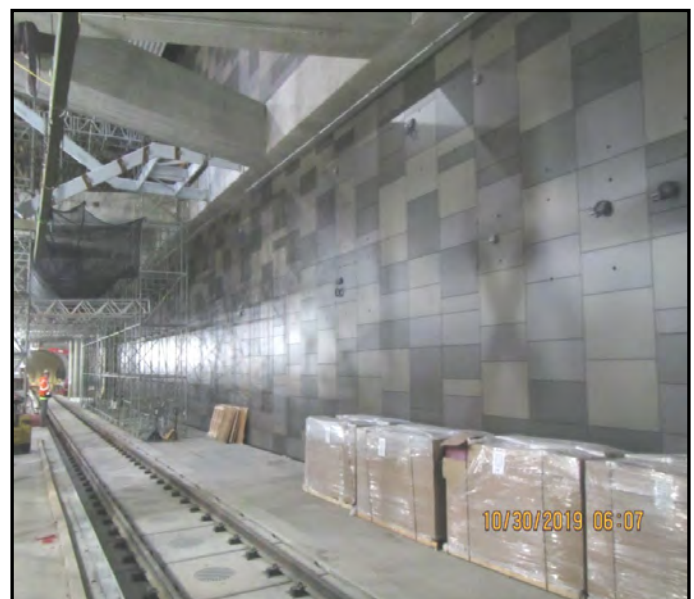
- Commence final testing and adjustment of elevator 2 at north end.
- Continue installation of floor tile started at north platform.
- Continue final setting of escalators 5 and 6 at south circulation tube.
- Continue pressure testing of storm lines.
- Continue transition work from temporary to permanent power.
- Continue pulling wire for electrical and BMS.
- Continue commissioning thermostats and dampers.
- Continue NE 43rd restoration work.

Closely Monitored Issues

- Additional Stair: As related to previous notes for MS 4A & MS 4B, it has been confirmed that any issues with the perforated aluminum panels for the added stair 8 will not affect the N830 follow on contractor or the N140 Emergency Ventilation System (EVS) testing. Shop drawings have been received for the perforated aluminum panels and are under review.
- Third party agency approvals: The delays caused by Seattle City Light & Seattle Public Utilities during their review and approval process have impacted the site work construction schedule. The CM and Contractor are working to review options to mitigate the delays.

Cost Summary

Present Financial Status	Amount
N140 Contractor—Hoffman Construction	
Original Contract Value	\$ 159,836,688
Change Order Value	\$ 4,704,918
Current Contract Value	\$ 164,541,606
Total Actual Cost (Incurred to Date)	\$ 140,116,224
Percent Complete	83.3%
Authorized Contingency	\$ 15,614,559
Contingency Drawdown	\$ 4,704,918
Contingency Index	2.7



Acrylic Wall Panels adjacent to southbound tracks.

Contract N150 – Roosevelt Station Finishes

Current Progress

Hoffman Construction (HCC) focused on punchlist activities and change order work this period. Additional activities goes as follows:

- Continued installation of exterior metal panel trim at north headhouse.
- Continued Level 1 & 2 commissioning testing of electrical and mechanical equipment.
- Continued installation of metal panel trim on exterior of north and south entrances.
- Continued sidewalk and roadway restoration on Roosevelt Way.
- Commenced installation of floor tile at entrance of north headhouse.

Schedule Summary

Substantial Completion of the Roosevelt Station has been recognized as being achieved on 24-Sep-20. The contractor is currently completing work that is part of the post-substantial completion acceptance period, along with scopes issued by work directives. This work does not affect any follow-on contract work by the Systems contractor, and is expected to be completed by the end of the 1st quarter of 2020.

Activity Name	OD	RD	Start	Finish	2017				2018				2019				2020			
					Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1		
N150 - Roosevelt Station Finishes	870	130	02-Dec-16 A	06-May-20																
MILESTONES	0	0	24-Sep-19 A	24-Sep-19 A																
Contract Milestones	0	0	24-Sep-19 A	24-Sep-19 A																
PRECONSTRUCTION	0	0	02-Dec-16 A	02-Dec-16 A																
ISSUE CONSTRUCTION NTP	0	0		02-Dec-16 A																
CONSTRUCTION	822	130	13-Feb-17 A	06-May-20																
MOBILIZATION	609	0	13-Feb-17 A	25-Jun-19 A																
STRUCTURE	626	0	13-Feb-17 A	05-Aug-19 A																
INTERIORS	426	16	23-Mar-18 A	22-Nov-19																
HEADHOUSE	446	34	21-Mar-18 A	20-Dec-19																
BUS SHELTER	162	16	08-Apr-19 A	22-Nov-19																
BIKE CAGE	66	3	14-Aug-19 A	14-Nov-19																
ELEVATORS	320	74	01-Nov-18 A	05-Mar-20																
ESCALATORS	218	11	03-Dec-18 A	15-Nov-19																
STAIRS	184	0	04-Sep-18 A	03-Sep-19 A																
ARTWORK	282	0	15-Aug-18 A	23-Sep-19 A																
CP-31	473	38	19-Feb-18 A	30-Dec-19																
CONSTRUCTION ACCESS INFILL	63	0	09-Jul-19 A	31-Oct-19 A																
SITE RESTORATION	468	111	07-Jun-18 A	09-Apr-20																
Work Directives - Schedule Development	331	130	21-Jan-19 A	06-May-20																
START-UP & COMMISSIONING	411	111	28-Aug-18 A	09-Apr-20																
Permits	105	105	11-Nov-19	09-Apr-20																
CLOSEOUT	5	5	11-Nov-19	15-Nov-19																
N830 TRACTION ELECTRIFICATION, SIGNALS, C	40	0	01-Nov-18 A	28-Dec-18 A																

Next Period's Activities

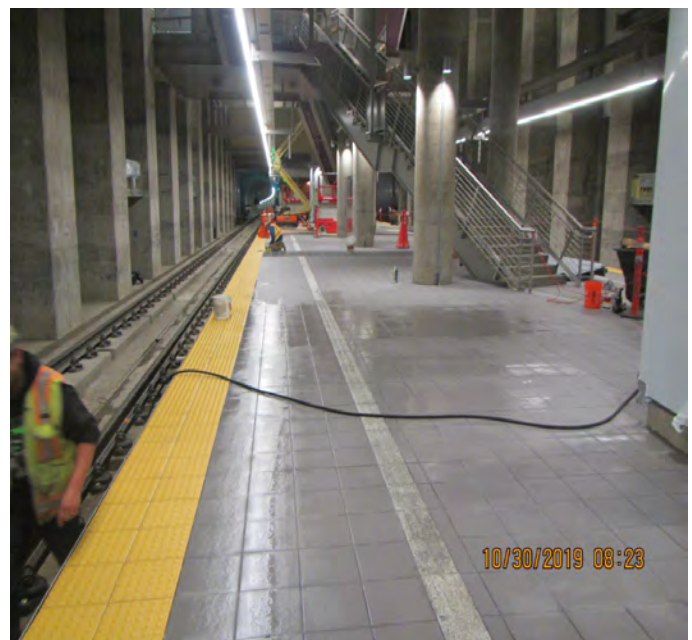
- Continue level 1 & 2 commissioning testing of electrical and mechanical equipment.
- Continue utility work on west end of 67th.
- Complete south head house roofing touch up work.
- Continue lighting rough-in and trim at north basement level (BL) 2.
- Continue installation of floor tile at entry lobby of north headhouse.
- Continue punchlist work.
- Commence installation of irrigation system.

Closely Monitored Issues

- Lighting at Escalators 1-4: Sound Transit (ST) is reviewing options with Design to add lighting at escalators 1-4 as the lighting level is not sufficient to pass the 5fc required per code. Completion of this work is required to obtain final sign-off from L&I for escalators 1-4.
- Switchgear Issue: Switch gear modifications is on hold pending final determination from ST based on schedule and cost information received from the Contractor this week.

Cost Summary

Present Financial Status	Amount
N150 Contractor - Hoffman Construction	
Original Contract Value	\$ 152,291,184
Change Order Value	\$ 10,369,770
Current Contract Value	\$ 162,660,954
Total Actual Cost (Incurred to Date)	\$ 156,840,874
Percent Complete	99.2%
Authorized Contingency	\$ 14,614,559
Contingency Drawdown	\$ 10,369,770
Contingency Index	1.4



Cleaning platform tile prior to grouting tile joints.

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

Current Progress

The N160 prime contractor, Absher Construction, and its various subcontractors are continuing work in all areas of the project. Accomplishments through the end of October include:

- Continued landscape irrigation line installation and forming of raingarden bridge footings at North Plaza and erection of two bus shelter frames at South Plaza.
- Continued finishes at North Ancillary Building.
- Continued excavation and forming for Stair 4 at main station along with electrical work, platform tiling, painting, fire piping, and escalator work.

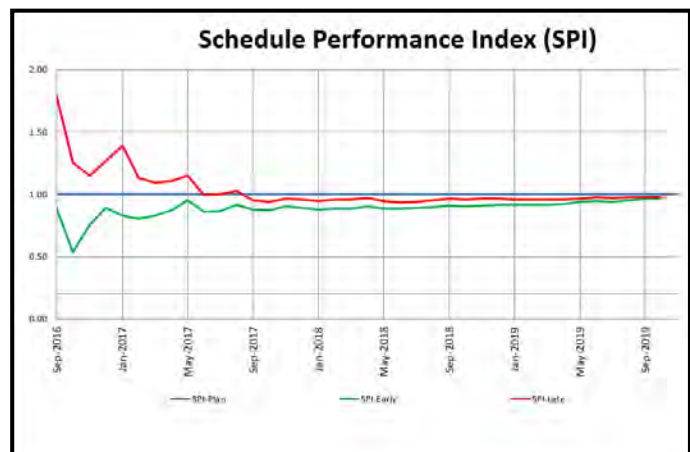
Schedule Summary

The project schedule for September maintains a Substantial Completion date to March 27, 2020, with 14-days of negative float. Station permanent power has slipped from Nov. 20th to the 26th. The critical path for the project remains in the south ancillary building, with the north ancillary and main station buildings near critical.

Activity Name	OD	RD	Start	Finish	2017				2018				2019				2020			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
N160 - Northgate Station Finishes	959	101	01-Sep-16 A	27-Mar-20	[Gantt bar spanning from Sep-2016 to Mar-2020]															
1.00 - General Requirements	902	0	01-Sep-16 A	27-Mar-20	[Gantt bar spanning from Sep-2016 to Mar-2020]															
1.10 - Project Start-up	0	0	01-Sep-16 A	01-Sep-16 A	[Gantt bar spanning from Sep-2016 to Sep-2016]															
Contract Award/NTP (See Site Access Dates)	0	0	01-Sep-16 A		[Gantt bar spanning from Sep-2016 to Sep-2016]															
1.20 - Contractual Milestones	0	0	27-Mar-20	27-Mar-20	[Gantt bar spanning from Mar-2020 to Mar-2020]															
Absher Contract Milestones	0	0	27-Mar-20	27-Mar-20	[Gantt bar spanning from Mar-2020 to Mar-2020]															
MS08 - Substantial Completion [Site Access+1201c	0	0	27-Mar-20*	27-Mar-20*	[Gantt bar spanning from Mar-2020 to Mar-2020]															
2.00 - Procurement	791	30	02-Sep-16 A	16-Dec-19	[Gantt bar spanning from Sep-2016 to Dec-2019]															
3.00 - Preparatory Work	861	101	17-Oct-16 A	27-Mar-20	[Gantt bar spanning from Oct-2016 to Mar-2020]															
4.00 - Earthwork & Utilities	874	101	04-Jan-17 A	27-Mar-20	[Gantt bar spanning from Jan-2017 to Mar-2020]															
5.00 - Guideway (inc. Station Unit)	736	10	03-Jan-17 A	14-Nov-19	[Gantt bar spanning from Jan-2017 to Nov-2019]															
6.00 - Station Finishes	593	78	27-Mar-18 A	25-Feb-20	[Gantt bar spanning from Mar-2018 to Feb-2020]															
7.00 - Garage	597	2	27-Jun-17 A	04-Nov-19	[Gantt bar spanning from Jun-2017 to Nov-2019]															
8.00 - At-Grade Restoration	608	74	22-Sep-17 A	19-Feb-20	[Gantt bar spanning from Sep-2017 to Feb-2020]															
9.00 - Transition to Operations	5	0	14-Jan-19 A	22-Jan-19 A	[Gantt bar spanning from Jan-2019 to Jan-2019]															
10.00 - Project Close-out	67	67	23-Dec-19	27-Mar-20	[Gantt bar spanning from Dec-2019 to Mar-2020]															

Schedule Performance Index

This period, the SPI early is 0.97 (up from 0.96 last period) and the SPI late is at 0.97 (down from 0.98 last period), indicating no major change in performance since last month. However, the indices indicate that the contractor continues performing slightly behind plan when compared to the baseline schedule. Overall work progress has remained within 0.06 of its current trend over the last year.



Next Period's Activities

- Continue painting, tiling, electrical, plumbing, construction of stairs, escalator installation, and curtain wall finishes at main station.
- Continue electrical work and insulation at South Ancillary building.
- Continue landscaping, flatwork, and restoration at plazas.

Closely Monitored Issues

- Seattle City Light (SCL) permanent service for the Station is still the biggest concern. Seattle Department of Construction & Inspections (SDCI) electrical inspection expected in mid-November. Only then will SCL acknowledge and schedule crews to complete their work.

Cost Summary

Present Financial Status	Amount
N160 Contractor - Absher Construction	
Original Contract Value	\$ 174,000,000
Change Order Value	\$ 10,508,978
Current Contract Value	\$ 184,508,978
Total Actual Cost (Incurred to Date)	\$ 166,935,466
Percent Complete	86.9%
Authorized Contingency	\$ 17,400,000
Contingency Drawdown	\$ 10,508,978
Contingency Index	1.5



Welding transit shelter awning steel beneath the guideway.

Next Period's Activities

- SWI to continue reviewing and processing submittals and Requests for Information (RFIs) and other documentation as N180 is at completion stage.
- Punchlist and final walks are being scheduled in Work Areas 3, 5, and 7.
- Continue to install Emergency Guard Rail (EGR) in Work Area 7 - 7.2.

Closely Monitored Issues

- Communication and coordination between contracts is ongoing and critical to progress in the last few weeks leading to Substantial Completion.

Summary of Work Areas

Work Area 1 - University Washington Station (UWS) to University District Station (UDS)

Work Area 2 - UDS Platform Level

Work Area 3 - UDS to Roosevelt Station (RVS)

Work Area 4 - RVS Platform Level

Work Area 5 - RVS to Maple leaf Portal (MLP)

Work Area 6 - MLP to Mechanically Stabilized Earth (MSE) wall

Work Area 7 - Northgate Station (NGS)

Cost Summary

Present Financial Status	Amount
N180 Contractor - Stacy and Witbeck, Inc.	
Original Contract Value	\$ 71,455,950
Change Order Value	\$ 4,311,104
Current Contract Value	\$ 75,767,054
Total Actual Cost (Incurred to Date)	\$ 74,295,151
Percent Complete	99.2%
Authorized Contingency	\$ 10,718,393
Contingency Drawdown	\$ 4,311,104
Contingency Index	\$ 2.44



Crew install bumping post at north end of the pocket track in Work Area 7.2

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

Current Progress

The N830 Contractor, Mass Electric Construction Co. (MEC), continued to prosecute the work as follows:

- Installed UPS, battery cabinets, isolation transformer, and network rack at Roosevelt Station (RVS).
- Installed conductor cable, inverter, and battery cabinets at U District Station (UDS). Tested 26kV cable UDS to RVS.
- Continued installing reverse running signals and testing at International District Station (IDS) / Downtown Seattle Transit Tunnel (DSTT).

Schedule Summary

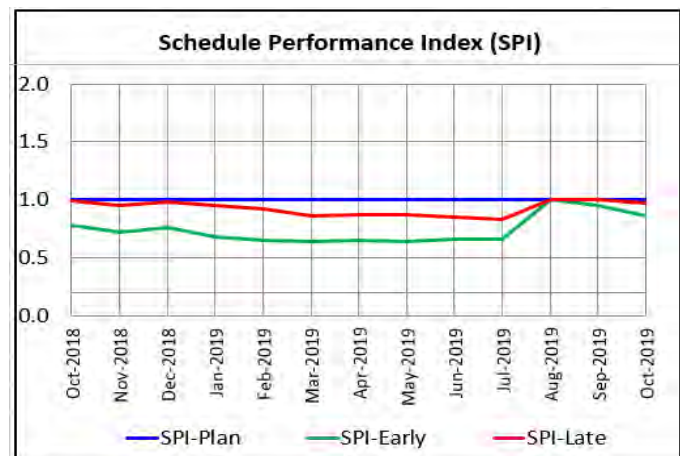
The October update from MEC forecasts an on-time completion. The critical path is unchanged, in the signals fabrication and installation. This is followed by testing of the equipment in the field and finally, systems integrated testing. Overhead Catenary System (OCS) installation is ongoing, and MEC will be increasing work in the Roosevelt Station as the N150 contractor completes the civil scope of work.

Activity Name	OD	RD	Start	Finish	2017															
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
N830/E750 - Systems	879	286	12-Jun-17 A	07-Jan-21	[Gantt bars for N830/E750 - Systems]															
General	0	0	12-Jun-17 A	12-Jun-17 A	[Gantt bars for General]															
Key Dates	0	0	12-Jun-17 A	12-Jun-17 A	[Gantt bars for Key Dates]															
NTP - Notice to Proceed (NTP) Northgate and East Link	0	0	12-Jun-17 A		[Gantt bars for NTP - Notice to Proceed (NTP) Northgate and East Link]															
N830 Project	747	286	20-Dec-17 A	07-Jan-21	[Gantt bars for N830 Project]															
N830 Construction	747	286	20-Dec-17 A	07-Jan-21	[Gantt bars for N830 Construction]															
N830 Milestones	0	0	28-Dec-20	28-Dec-20	[Gantt bars for N830 Milestones]															
MS#05 Northgate: Substantial completion of Northgate Li	0	0		28-Dec-20*	[Gantt bars for MS#05 Northgate: Substantial completion of Northgate Li]															
N830 OCS	470	182	10-Sep-18 A	02-Aug-20	[Gantt bars for N830 OCS]															
N830 Traction Power / Substations Procurement	635	174	20-Dec-17 A	21-Jul-20	[Gantt bars for N830 Traction Power / Substations Procurement]															
N830 Signals	447	159	15-Aug-18 A	29-Jun-20	[Gantt bars for N830 Signals]															
N830 Communications	603	173	10-Feb-18 A	20-Jul-20	[Gantt bars for N830 Communications]															
N830 Radio	478	167	09-Jul-18 A	13-Jul-20	[Gantt bars for N830 Radio]															
N830 Trunk Fiber	408	119	28-Sep-18 A	04-May-20	[Gantt bars for N830 Trunk Fiber]															
N830 Testing and Commissioning	571	286	07-Sep-18 A	07-Jan-21	[Gantt bars for N830 Testing and Commissioning]															

Schedule Performance Index

This period, the SPI early is 0.86 (down from 0.95 last period) and the SPI late is 0.97 (slightly down from 1.00 last period). The indices indicate a downward trend since last month. The Contractor continues performing slightly behind plan when compared to the baseline schedule.

ST and CMC continue to work closely with the Contractor/ Subcontractors to help strengthen the schedule and improve performance.



Next Period's Activities

- Continue development and reviews of engineering submittals covering all disciplines: Traction Power Substations (TPSS), Overhead Catenary Systems (OSC), Train Control Signal Systems, and Communications.
- Ongoing coordination meetings between Systems and Civil Contractors for interface and access points for respective contracts.
- Ongoing installation of the communication power panels, conduits for various field-end devices, and TPSS equipment at U-District (UDS) and Roosevelt (RVS) Stations.
- Ongoing test of 26kv cables at UDS and RSV Stations.
- Ongoing OCS installation and commence fiber installation in the Northgate Tunnels.
- Ongoing inspection of trackwork to identify any remaining work and clean up to be performed by the Trackwork Contractor (N180).
- Ongoing Offsite Factory Acceptance Testing (FAT) for Signal and COM equipment.

Closely Monitored Issues

- ST and CMC coordination ongoing for the IDS cutover change from full shutdown to single tracking.
- ST and CMC are receiving a large number of submittals for review and anticipate even more over the coming weeks. To mitigate delays in approval of reviews, ST, CMC, and Contractor held joint workshops to expedite the review process without impacting the quality of the review.
- ST and CMC concerned Contractor's ramp-up of labor is not sufficient to meet the planned construction activities. ST and CMC closely tracking the planned ramp-up of labor in comparison to actual progress.

Cost Summary

Present Financial Status	Amount
N830 Contractor - Mass Electric Construction Co.	
Original Contract Value	\$104,660,444
Change Order Value	\$853,785
Current Contract Value	\$105,514,228
Total Actual Cost (Incurred to Date)	\$46,651,154
Percent Complete	53.5%
Authorized Contingency	\$5,233,022
Contingency Drawdown	\$853,785
Contingency Index	3.3

**The N830 and E750 Systems is a joint procurement. The Cost Summary table above represents N830 Systems only.*



TPSS Layout for Conduit Rack at UDS Station

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Link Light Rail Lynnwood Link Extension

Project Summary

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 communications (SCADA)

Phase Construction

Budget \$2.772 Billion (Baseline May 2018)

Schedule Revenue Service: July 2024



Map of Lynnwood Link Extension Alignment.

Key Project Activities

- Executed contract modifications for the active heavy civil GC/CM contracts (L200 and L300), establishing the total contract cost for each.
- Continued integration of contract modification scopes into the schedules for each active heavy civil GC/CM contract.
- Completed and issued the Issued for Construction set of documents for the Shoreline South/185th St. garage (L200).
- Delivered the 100% systems design package to the L800 GC/CM for commencement of pricing.
- Activated the interim temporary parking lot at the former Roger’s Market site in Mountlake Terrace (L300).
- Continued building abatement and demolition within the L200 and L300 package limits.
- Continued clearing, grading, and tree removals within the L200 and L300 limits, including site water management systems and Best Management Practices (BMPs).
- Continued construction of Phase 2 area mitigation work at the Ronald Bog site in Shoreline (L200).
- Continued shaft access construction in anticipation of drilled shaft work commencement on both L200 and L300.

Project Cost Summary

The 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.

In October 2019, \$26.1 M was incurred. The major project expenditures were for civil early work construction, property acquisition, and advancing civil & systems final design.

The remaining expenditures were for third party coordination, permits, staff, legal, and other direct charges.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$98.2	\$98.2	\$35.0	\$34.8	\$98.2	\$0.0
Preliminary Engineering	\$39.1	\$39.1	\$39.1	\$39.1	\$39.1	\$0.0
Final Design	\$164.2	\$164.2	\$140.3	\$111.3	\$164.2	\$0.0
Construction Services	\$128.4	\$128.4	\$92.3	\$27.4	\$128.4	\$0.0
3rd Party Agreements	\$14.6	\$14.6	\$10.6	\$8.1	\$14.6	\$0.0
Construction	\$1,921.4	\$2,091.6	\$1,710.0	\$91.2	\$2,091.6	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$235.7	\$235.7	\$171.7	\$156.0	\$235.7	\$0.0
Project Contingency	\$170.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total	\$2,771.6	\$2,771.6	\$2,198.9	\$467.9	\$2,771.6	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$791.8	\$1,002.2	\$676.1	\$5.9	\$711.4	\$290.8
20 Stations	\$333.8	\$333.8	\$408.7	\$0.0	\$430.0	-\$96.3
30 Support Facilities	\$2.0	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
40 Sitework & Special Conditions	\$421.1	\$426.2	\$569.1	\$84.1	\$645.9	-\$219.7
50 Systems	\$244.4	\$244.4	\$46.1	\$0.0	\$219.3	\$25.1
Construction Subtotal (10 - 50)	\$1,793.0	\$2,008.5	\$1,700.0	\$90.0	\$2,008.5	\$0.0
60 Row, Land	\$235.7	\$235.7	\$171.7	\$156.0	\$235.7	\$0.0
70 Vehicles (Non-Revenue)	\$1.4	\$1.4	\$0.0	\$0.0	\$1.4	\$0.0
80 Professional Services	\$449.3	\$450.6	\$327.2	\$221.9	\$450.6	\$0.0
90 Unallocated Contingency	\$292.2	\$75.4	\$0.0	\$0.0	\$75.4	\$0.0
Total (10 - 90)	\$2,771.6	\$2,771.6	\$2,198.9	\$467.9	\$2,771.6	\$0.0

Link Light Rail Lynnwood Link Extension



Risk Management

The 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 to continuously monitor project status and associated risks.

The following are the top project risks:

- Changes during construction that impact cost and schedule.
- Coordination of civil/systems interface and potential for civil construction delays systems construction.
- Obtaining permits: Cities, WSDOT and resource agencies.
- Delays in long lead procurement of girders and other key material/equipment/resources.
- Timely completion of utility relocations and property acquisition.
- Tight budget and limited contingency.
- Relationship with GC/CM contractors and culture of each contract.

Project Schedule

The October schedule update forecasts a Sept. 2024 revenue service date. This schedule reflects an improvement over the previous month, achieved through joint ST/Contractor detailed reviews and revision of the L200 and L300 schedules. This schedule also includes the 90% schedule submission for the L800 Systems contract. The revenue service date is currently driven by the L200 contract. Construction of the guideway, and subsequent handover to the systems contract for signal systems installation are the current critical path. Further refinements of the civil construction schedules and a revision of the systems schedule in conjunction with the 100% systems design should yield greater accuracy in forecasting the revenue service date.

Activity Name	Start	Finish	Total Float	2019				2020				2021				2022				2023			2024		
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
LLE Master Schedule	20-May-10 A	29-Mar-24	114																						
Project Administration	20-May-10 A	29-Mar-24	114																						
Final Design/Preconstruction	01-Sep-15 A	23-Nov-22	261																						
Permitting & Agreements	07-Jan-15 A	25-Jul-23	93																						
Utilities	02-May-18 A	27-Apr-22	596																						
L200 ROW Acquisitions	04-Jan-18 A	29-Mar-20	1348																						
L300 ROW Acquisitions	14-Jan-18 A	09-Oct-20	1177																						
L200 Construction	18-Oct-18 A	29-Mar-24	-83																						
L300 Construction	25-Sep-18 A	29-Mar-24	114																						
L800 Construction 90Pct	31-Jul-20	27-Nov-23	10																						
LLE Rail Activation	18-Jul-23	10-Sep-24	0																						
Contracts	26-Aug-23	27-Nov-23	14																						
RA Tasks	18-Jul-23	09-Jan-24	245																						
Pre-Revenue Service	09-Nov-23	09-Jan-24	175																						
Pre-Revenue Tasks	09-Nov-23	09-Jan-24	175																						
Revenue Service	09-Jan-24	10-Sep-24	0																						
Program Wide Float (CD)	09-Jan-24	10-Sep-24	0																						
Revenue Service - 7/17/2024		10-Sep-24	0																						

Contingency Management

The Lynnwood Link project budget was baselined in May 2018 with a total contingency of \$737.7M.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA is expected to be fully drawn when all construction contract packages are executed.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties.

Following a significant drawdown in project contingency in Q2/Q3 2019, Sound Transit revised the contingency forecast to align with the cash flow forecast of the major civil contracts.

During this period, AC was reduced by \$0.2 M for L300 construction change orders. DA and UAC are unchanged.

Contingency Status

Type	Baseline		Current Status	
	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$247.9	8.9%	\$15.2	0.7%
Allocated Contingency	\$197.6	7.1%	\$181.8	7.9%
Unallocated Contingency	\$292.2	10.5%	\$75.4	3.3%
Total:	\$737.7	26.6%	\$272.4	11.8%

Contingency by Type

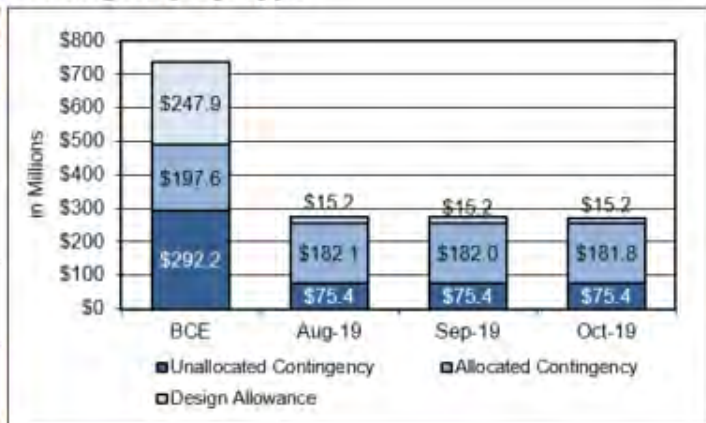
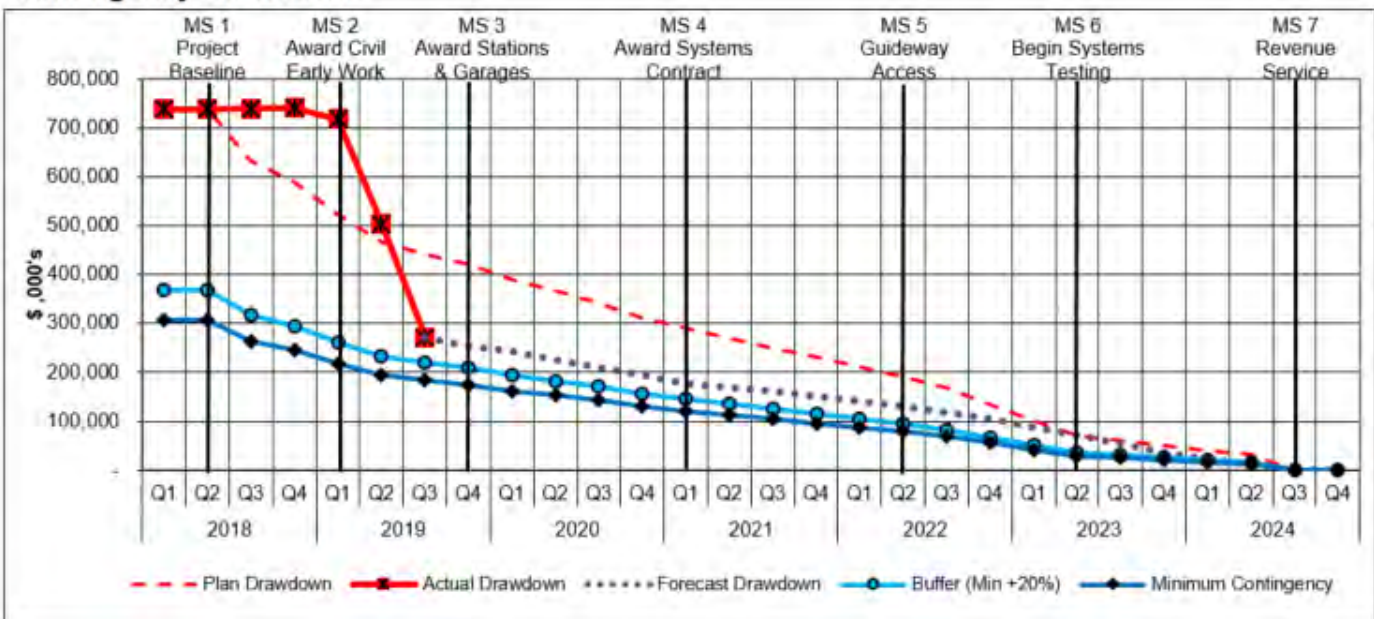


Table figures are shown in millions.

Contingency Drawdown



Right-of-Way

The Right-of-Way effort for this project 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					
ACQUISITION				RELOCATION	
Total Acquisitions	Board Approved	Offers Made to date	Closings to date *	Relocations Required	Relocations Completed to date
365	362	351	284	375	351
<i>All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods. *Total number of parcels available for construction = 321.</i>					

Community Outreach

In October, the Lynnwood Link Community Outreach team:

- Performed outreach at the Mountlake Terrace transit center, including street teaming for four days; spoke to more than 1,000 people and handed out 400 flyers.
- Met with 27 Lynnwood businesses to inform them of Sound Transit's Business Relations Program.
- Implemented Veterans Park Trail closure plan; submitted closure plan to City of Mountlake Terrace, installed eight signs, distributed flyers at the transit center and nearby residences, and ordered metal signage for trailheads.
- Informed commuters of Lynnwood transit center closures, including issuing a construction alert, notifying 230 residences and 27 businesses.
- Communicated night-work, traffic revisions, and utility work to residents in Shoreline and Seattle, including issuing seven construction alerts, notifying 376 residences and holding 16 in-person meetings.

Sound Transit Board Actions

Board Action	Description	Date
	No board actions this period.	

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Construction Safety

Data/ Measure	October 2019	Year to Date	Project to Date
Recordable Injury/Illness Cases	0	0	0
Days Away From Work Cases	0	0	0
Total Days Away From Work	0	0	0
First Aid Cases	2	5	5
Reported Near Mishaps	1	6	6
Average Number of Employees on Worksite	340	-	-
Total # of Hours (GC & Subs)	31,614	122,957	122,957
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	0.00	0.00	0.00
LTI Rate	0.00	0.00	0.00
Recordable National Average	3.00		
LTI National Average	1.20		
Recordable WA State Average	6.00		
LTI WA State Average	1.90		

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.

Data includes the L200 and L300 contracts.

Civil Final Design Overview

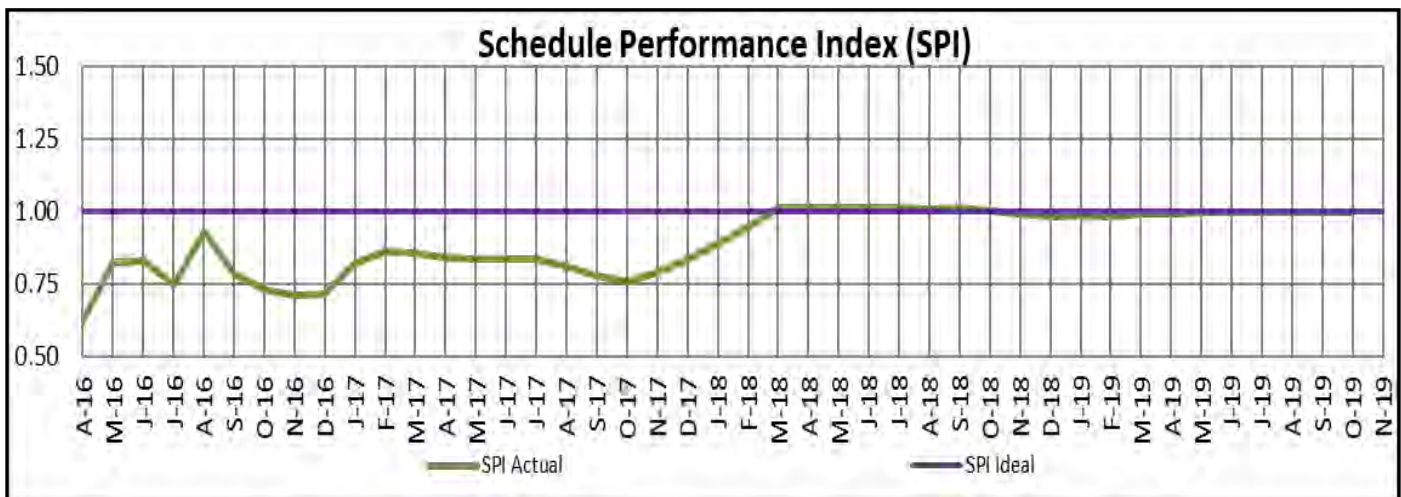
Sound Transit executed a professional services contract with HNTB Jacobs in April 2016 to perform civil final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive civil contract documents for construction, design coordination and cooperation with the GC/CM contractors, permit support, survey, geotechnical investigations, right-of-way planning and acquisition support, third party coordination support, risk assessment support, value engineering and constructability support, building and station systems design, cost estimating, and sustainability reports.

Current Progress

- Delivered updated Issued For Construction (IFC) drawings and specification documents.
- Delivered or advanced design that implements additional value engineering items.
- Continued support for obtaining permits from local jurisdictions and utility relocations.

Schedule Performance Index

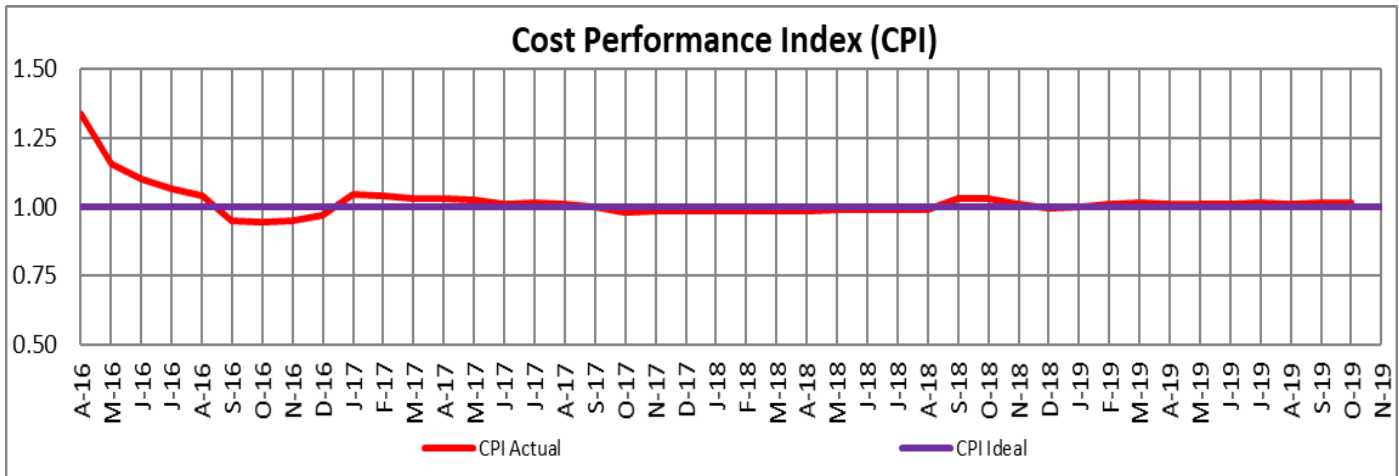
The cumulative Schedule Performance Index (SPI) trends at 1.00 through October 2019, which means that the cumulative amount of work accomplished is close to the value of work planned. As the work nears completion, the SPI will continue to be near 1.0.



Link Light Rail Lynnwood Link Extension

Cost Performance Index

\$99.4 M of the total contract amount, 98%, has been spent through October 2019. The civil final design percent complete is 99%, with an earned value of \$100.6 M. The cumulative Cost Performance Index (CPI) through October is 1.01 indicating that actual costs are close to the earned value of work performed.



Cost Summary

Present Financial Status	Amount
Contractor– HNTB Jacobs	
Original Contract Value	\$70,256,263
Change Order Value	\$30,992,422
Current Contract Value	\$101,248,685
Total Actual Cost (Incurred to Date)	\$99,407,685
Financial Percent Complete	98.2%
Physical Percent Complete	99.4%
Authorized Contingency	\$30,992,422
Contingency Drawdown	(\$28,493,758)
Contingency Index	1.07



Placing piles for support of excavation in Work Area 4.

Systems Final Design Overview

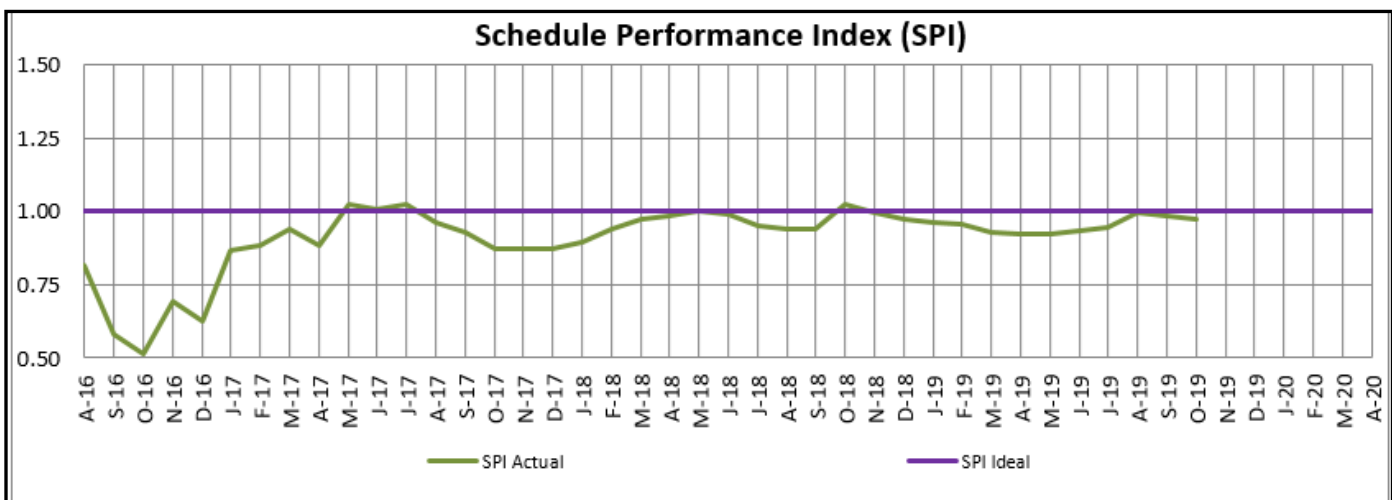
Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform systems final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive contract documents for construction, design coordination and cooperation with the civil final designer and GC/CM contractors, permit support, third party coordination support, risk assessment support, value engineering and constructability support, schedules and cost estimating.

Current Progress

- Completed and submitted the 100% system design using Computer-Aided Design software (CAD), including reviews and updates to traction electrification system, system wide electrical, signals, and communications drawings.
- Letter issued by Sound Transit to LTK to selectively delay completion of portions of design work effective October 31st. This delay allows better alignment of the Issue for Construction (IFC) documents and construction contract negotiations and notice to proceed. Exceptions may be directed for certain activities like signal systems, communication systems and cost estimating work, if need arises.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 0.97 through October 2019, which means that the cumulative amount of work accomplished is slightly lower than the overall work planned.

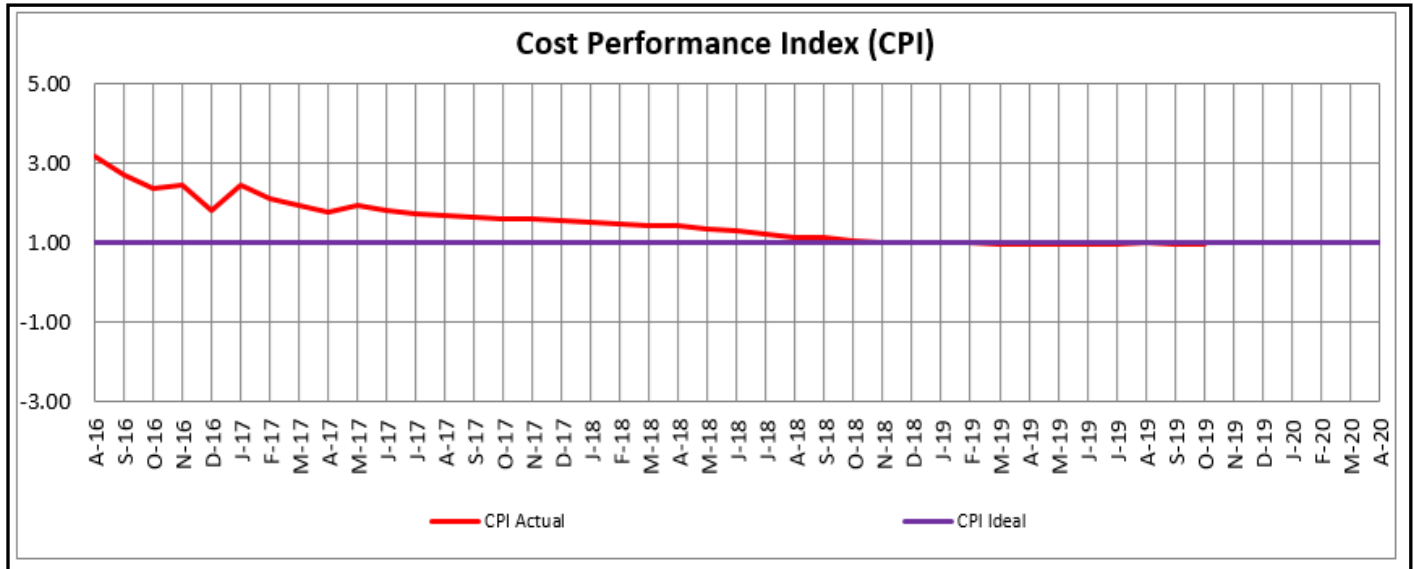


Link Light Rail Lynnwood Link Extension



Cost Performance Index

\$9.8 M (98.6%) of the total contract amount has been spent through October 2019. The systems final design percent complete is 94.1%, with an earned value of \$9.4 M. The cumulative Cost Performance Index (CPI) is 0.95 indicating the earned value of the work performed is lower than the actual cost incurred.



Cost Summary

Present Financial Status	Amount
Contractor—LTK Engineering	
Original Contract Value	\$9,293,684
Change Order Value	\$650,494
Current Contract Value	\$9,944,178
Total Actual Cost (Incurred to Date)	\$9,808,835
Financial Percent Complete	98.6%
Physical Percent Complete	94.1%
Authorized Contingency	\$650,558
Contingency Drawdown	\$650,494
Contingency Index	0.99



Light Rail Train run by the Overhead Catenary System (OCS) powered from the Traction Power Substation (TPSS).

Contract L200 GC/CM—Northgate to NE 200th Street

Current Progress

The ST Board approved the L200 construction contract with Stacy & Witbeck– Kiewit– Hoffman JV (SKH) in December 2018. In this period SKH performed the following work in work zones (WZ):

- WZ-1 (Northgate to NE 115th St): Tree removal at Northgate offramp. Started access for structures A4-A8.
- WZ-2 (115th to 126th): Completed residential demolition and abatement.
- WZ-5 (NE 150th to NE 155th): Completed residential demolition. Installed filtration system Basin C.
- WZ-7 (NE 155th St to NE 174th St): Installed filtration system Basin D. Continued clear/grub.
- WZ-9 (NE 176th to NE 185th): Completed residential demolition and abatement. Basin B pipe welding.



Schedule Summary

The October schedule update indicates late completion of all work, however ST and the contractor conducted a two-day workshop to review logic and work sequences. This review resulted in agreement to provide a great level of detail to the major structural concrete and trackwork activities in the schedule. The handovers to the systems contractor remain key elements of the schedule. ST is working with both the contractor and 90% systems scheduler in order to evaluate the multiple handover milestone approach to guideway transitions. The critical path of the schedule is driven by construction of the A and C elevated

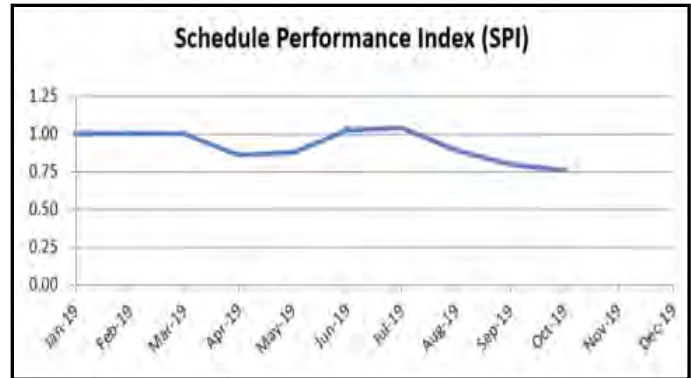
Activity Name	Start	Finish	Total Float	2020		2021				2022				2023				2024	
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
L200 Construction	16-Oct-18 A	29-Mar-24	-83																
Project Wide	08-Dec-18 A	29-Mar-24	-83																
WZ-1 Elevated (1437+00 to 1458+63)	08-Apr-19 A	05-Jun-23	140																
WZ-2 At Grade - Fill (1458+63 to 1492+45)	21-Mar-19 A	28-Aug-23	86																
WZ-3 Elevated (1492+45 to 1559+17)	23-Mar-19 A	28-Aug-23	82																
WZ-4 145th Station & Garage	09-Apr-19 A	28-Aug-23	59																
WZ-5 At Grade - Fill (1559+17 to 1571+30)	16-Oct-18 A	28-Aug-23	96																
WZ-6 155th Bridge (1571+30 to 1572+40)	22-May-19 A	28-Aug-23	86																
WZ-7 At Grade - Retained (1572+40 to 1624+00)	27-Mar-19 A	28-Aug-23	86																
WZ-8 175th Bridge (1624+00 to 1631+25)	25-Apr-19 A	27-Jul-22	357																
WZ-9 At Grade - Cut (1631+25 to 1661+78)	15-Apr-19 A	28-Aug-23	86																
WZ-10 185th Station & Garage	08-Apr-19 A	27-Feb-23	186																
WZ-11 At Grade (1661+78 to 1694+01)	09-Apr-19 A	28-Aug-23	59																

Link Light Rail Lynnwood Link Extension

Schedule Performance Index

The cumulative SPI is at 0.76, meaning the cumulative amount of work accomplished is lower than the planned.

Through October, the earned value represents only the early work portion of the contract. The major contract modification is not yet integrated into the earned value plan.



Next Period Activities:

- WZ-1 (Northgate to NE 115th St): Continue structures access A4-A16. Install temporary lighting.
- WZ-2 (115th to 126th): Start duct bank installation and continue clearing and grubbing.
- WZ-3 (NE 130th St to NE 150th St): Structures access C1-C13.
- WZ-5 (NE 150th to NE 155th): Install Ronald sewer A and B.
- WZ-7 (NE 155th St to NE 174th St): Finish temp fencing and setup staging yards. Install Ronald sewer D.
- WZ-9 (NE 176th St to NE 185th St): Basin E pipe weld.
- WZ-10 (185th Station): Utility potholing and station access.

Closely Monitored Issues:

- Monitoring timing of receipt of all permits necessary for construction.
- Evaluating cost impact of plan set revision between the early work pricing and Issue for Construction (IFC) sets.
- Coordination of construction impacts to bicycle/ pedestrian path between 1st Ave NE and NE 116th St.

Cost Summary

Financial Status	Amount
L200 Contractor - SKH	
Original Contract Value	\$88,147,258
Change Order Value	\$752,351,006
Current Contract Value	\$840,498,264
Total Actual Cost (Incurred to Date)	\$47,671,152
Percent Complete	7.0%
Authorized Contingency	\$43,762,892
Contingency Drawdown	\$500,000
Contingency Index	4.4



WZ-1 Northgate Pond pumping to Basin A

Contract L300 GC/CM—NE 200th Street to Lynnwood Transit Center

Current Progress

The Sound Transit Board approved the L300 construction contract with Skanska Constructors for early work scope in February 2019. In this period Skanska performed the following work in work areas (WA):

- WA 4 - Completed hauling out trees and waste piles. Began cutting, filling and finish grading crane access road slopes.
- WA 6 - Began mobilizing equipment to begin directional boring. Began installation of H-piles for retaining walls.
- WA 9 - Completed installation of storm water treatment system and continue to monitor power generator operations
- WA 13 - Continue grading slopes, placing jute mats on steep slopes and hydro seeding.



Schedule Summary

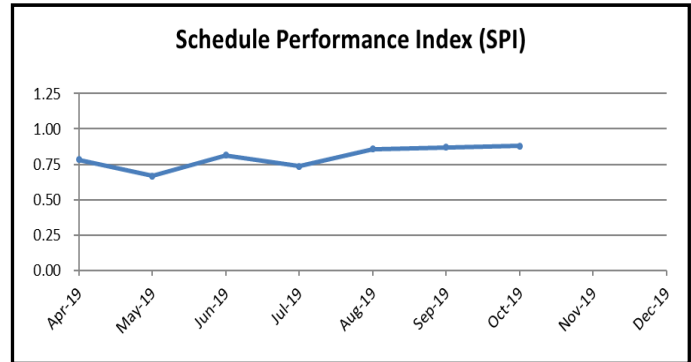
The October schedule update indicates late completion of all work and was returned to the contractor for revision. The critical path of the project runs through the Lynnwood Transit Center parking garage. The previous plan to handover the guideway to the systems contractor at one time has been changed to two handovers. ST is working with both contractors to determine the overall feasibility of this approach.

Activity Name	Start	Finish	Total Float	2020				2021				2022				2023				2024		
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
L300 Construction	25-Sep-18 A	29-Mar-24	117																			
L300 Construction			0																			
MILESTONES	25-Sep-18 A	29-Mar-24	114																			
ROW ACQUISITIONS (PARCELS & TCE'S)	04-Jun-19 A	09-Oct-20	781																			
PERMITTING	01-Feb-19 A	27-May-20	873																			
SUB-CONTRACTS	25-Oct-19 A	02-Jan-20	448																			
SUBMITTALS	12-Apr-19 A	11-Jun-20	791																			
MATERIAL PROCUREMENT	19-Aug-19 A	07-Apr-21	631																			
EARLY WORK	12-Apr-19 A	21-Jan-21	717																			
3RD PARTY UTILITIES	03-Oct-19 A	09-Mar-20	310																			
CONSTRUCTION	01-Nov-19	02-Oct-23	237																			

Schedule Performance Index

This period the cumulative SPI is at 0.88, which means that cumulative amount of work accomplished is lower than the value of work planned.

Through October, the earned value represents only the early work portion of the contract. The major contract modification is not yet integrated into the earned value plan.



Next Period's Activities

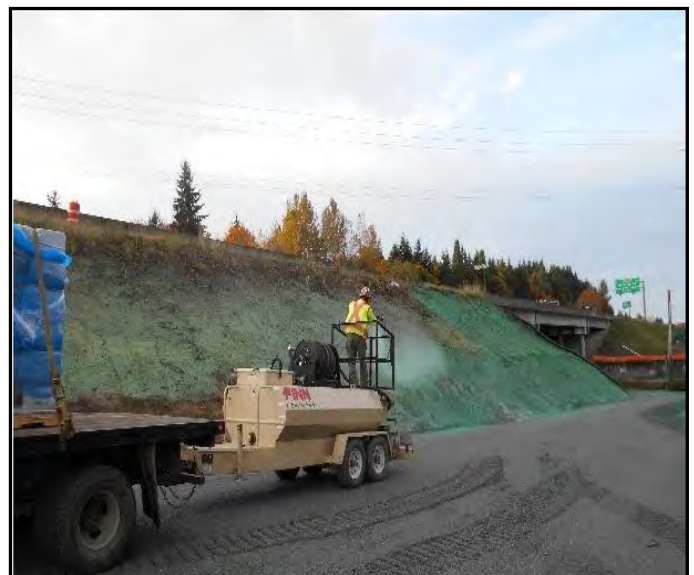
- Continue to install storage tanks, water treatment system and begin plumbing the treatment system.
- Continue to construct shoring walls.
- Continue to cut, fill and finish grading access roads and begin excavation for and placement of support of excavation access.
- Continue to clear trees and place BMPs.
- Continue installation of security and wood fencing and placing landscaping.
- Continue placement of hydroseeding.
- Continue welding of water system conveyance piping.
- Continue with structure demolitions.

Closely Monitored Issues

- Monitoring timing of receipt of all permits necessary for construction.
- Coordination with WSDOT's northbound I-5 resurfacing project near the King-Snohomish county line.

Cost Summary

Present Financial Status	Amount
L300 Contractor—Skanska	
Original Contract Value	\$ 56,886,631
Change Order Value	\$ 778,790,129
Current Contract Value	\$ 835,676,760
Total Actual Cost (Incurred to Date)	\$ 30,664,476
Percent Complete	5.0%
Authorized Contingency	\$42,888,048
Contingency Drawdown	(\$ 676,760)
Contingency Index	2.33



Hydroseeding in Work Area 13.

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



Project Summary

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.



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

Phase Construction
Budget \$225.6 Million
Schedule Construction Complete: 1st QTR 2019

Major Contracts

	Scope	Agreement/Contract Amount
WSDOT	Final Design	\$ 20,942,000
WSDOT	CM Services	\$ 39,188,449
IMCO	Construction	\$131,515,559
City of Mercer Isl.	Transportation Mitigation	\$10,050,000

Key Project Activities

- **Work outside the tunnels** – As-built plans review
- **Mercer Island Tunnel** – Complete punch list items
- **Mount Baker Ridge Tunnel** – Complete punch list items
- **SCADA** – Ongoing testing & commissioning
- **Simplex** – Complete punch list items

Closely Monitored Issues

While the center roadway turnover to Sound Transit was completed on schedule, granting of Substantial Completion continues to slip; granting of Substantial Completion (retroactive to June 2017) is anticipated for 4th Quarter 2019, due to the following:

- Challenges continue with final commissioning of the Fire/Life/Safety Systems, including incomplete Building Information Modeling (BIM). As-Built data, incomplete or missing Operations & Maintenance manuals, and missing test reports.
- Commissioning Agent Certification of all test.
- Final resolution of acceptance criteria.

Project Cost Summary

The following tables summarize the cost information for the I-90 Two-way Transit and HOV Operations (Stage 3) project. Project expenditures for October were \$250.0K. Tables below are in millions.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$3.6	\$3.6	\$2.3	\$2.3	\$3.6	\$0.0
Preliminary Engineering	\$1.5	\$1.5	\$1.5	\$1.5	\$1.5	\$0.0
Final Design	\$22.1	\$22.1	\$18.7	\$18.2	\$22.1	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction	\$198.3	\$198.3	\$182.7	\$173.9	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$205.3	\$196.0	\$225.6	\$0.0

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

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
40 Sitework & Special Conditions	\$180.6	\$190.7	\$182.7	\$173.9	\$190.7	\$0.0
80 Professional Services	\$26.3	\$26.3	\$22.6	\$22.1	\$26.3	\$0.0
90 Unallocated Contingency	\$18.7	\$8.7	\$0.0	\$0.0	\$8.7	\$0.0
Total	\$225.6	\$225.6	\$205.3	\$196.0	\$225.6	\$0.0

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

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



Cost Contingency Management

In the table below, the Allocated Contingency includes both WSDOT-controlled construction contingency and the total ST-controlled allocated contingencies. Reduction of the remaining work budgeted during the month of October included payments for identified scope gap work and WSDOT staff & their consultants; this resulted in a net 0.3% increase from last month to the overall Current Contingency % when compared to the remaining work budgeted.

Contingency Status	Baseline Amount	Baseline % of Total	Current Amount	CTG as % of Remaining Work Budgeted
Design Allowance	\$0.0	0.0%	\$0.0	0.0%
Committed Allocated Contingency	\$17.0	7.5%	\$2.2	7.4%
Unallocated Contingency	\$18.7	8.3%	\$8.7	29.2%
Total	\$35.7	15.8%	\$10.9	36.6%

Note: Table in millions.

Project Schedule

Project Milestones for construction are indicated below; the revised Substantial Completion date, retroactive to June 14, 2017, was negotiated by WSDOT with their contractor and approved by Sound Transit as part of a commercial issues resolution change order, which is pending final authorization.

Contract	Fire/Life Safety Systems Commissioning		Substantial Completion		Center Roadway Turnover		Physical Completion	
	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual
I-90 Two-Way Transit & HOV Operations Stage 3	2/16/2017	Q4/2019	2/20/2017	6/14/2017	5/31/2017	6/14/2017 A	5/31/2017	Q4/2019

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

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Link Light Rail East Link Extension



Project Summary

Scope

- Limits** Fourteen-mile extension from Downtown Seattle to Mercer Island, Bellevue and the Overlake area of Redmond.
- Alignment** East Link Extension expands light rail to East King County via I-90 from Downtown Seattle to the Overlake Transit Center area of Redmond.
- Stations** Judkins Park, Mercer Island, South Bellevue, East Main, Bellevue Downtown, Wilburton, Spring District/120th, Bel-Red/130th, Overlake Village (OVS) and Redmond Technology (RTS).
- Systems** Signals, traction electrification, and communications (SCADA).
- Phase** Construction
- Budget** \$3.677 Billion (Baseline April 2015)
- Schedule** Revenue Service: June 2023



Map of East Link Extension Alignment.

Key Project Activities

Seattle to South Bellevue

- **Floating Bridge Retrofit (E130):** Cathodic protection work continues; ongoing installation of dowel bars for EB/WB transition plinths and emergency guide rail placement; progress placement and installation of modular track bridges.
- **Mercer Island (E130):** Progress interior finishes, West Head House & platform lighting, East Head House commissioning at Mercer Island Station; continue mechanical and structural modifications, and track installation in Mercer Island Tunnel
- **IDS to Mt. Baker Tunnel (E130):** Ongoing demo, utility work, rail installation and temporary platform work associated to mainline tie-in; continue electrical, structural work in Mt. Baker Tunnel; progress structural work at Judkins Park Station.

South Bellevue to Redmond

- **South Bellevue (E320):** Continued station buildout and laying plinth and track. Progressed vertical conveyances in station and shotcrete work in trench. Continued overhead catenary system pole foundation work.
- **Downtown Bellevue Tunnel (E330):** Started installing reinforcement of the crown in the mid-tunnel enlarged section; demobilized rebar gantry; Started continued construction of the center wall throughout the tunnel.
- **Downtown Bellevue to Spring District (E335):** Continued formwork and concrete placement at Bellevue Downtown Station; progressed restoration of 110th Ave; ongoing track work; and sound wall work at East Main Station.
- **Bel-Red (E340):** Continued setting screed rail on the aerial guideway. Began setting rail at the east-side entry and form placement, placed track boxes at insulated joints, installed plumbing at 30th Station area.
- **SR520 to Redmond Technology Station (E360):** Continued aerial guideway, fire standpipe, drainage and bus loop paving under garage. Ongoing RTS canopy roof installation. OVS Pedestrian Bridge ramp falsework preparation.
- **Systems (E750):** Continued with submittals, component design/manufacturing/fabrication, site interface inspections.

Closely Monitored Issues

- Bellevue Downtown Station (E335) and the Bel-Red Segment (E340) challenges and schedule slippage.
- Design change during construction phase particularly at our most technically challenging stations.
- Quality, construction safety and environment compliances.
- Coordination of pre-requisite work in 2019 that leads up to IDS single tracking in Q1 2020.

Project Cost Summary

The 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.

The Estimated Final Cost (EFC) remains the same at approximately \$3.68B. This period's expenditure is over \$50M, pushes the total expenditure to date from \$2.13B to \$2.18B. Project commitments is over \$3B with all major construction contracts in place and construction is on-going throughout the alignment. This period's continues to somewhat under perform due to a combination of resequencing of work plan and construction challenges. It is anticipated to be made up throughout the current year.

Cost Summary by Phase

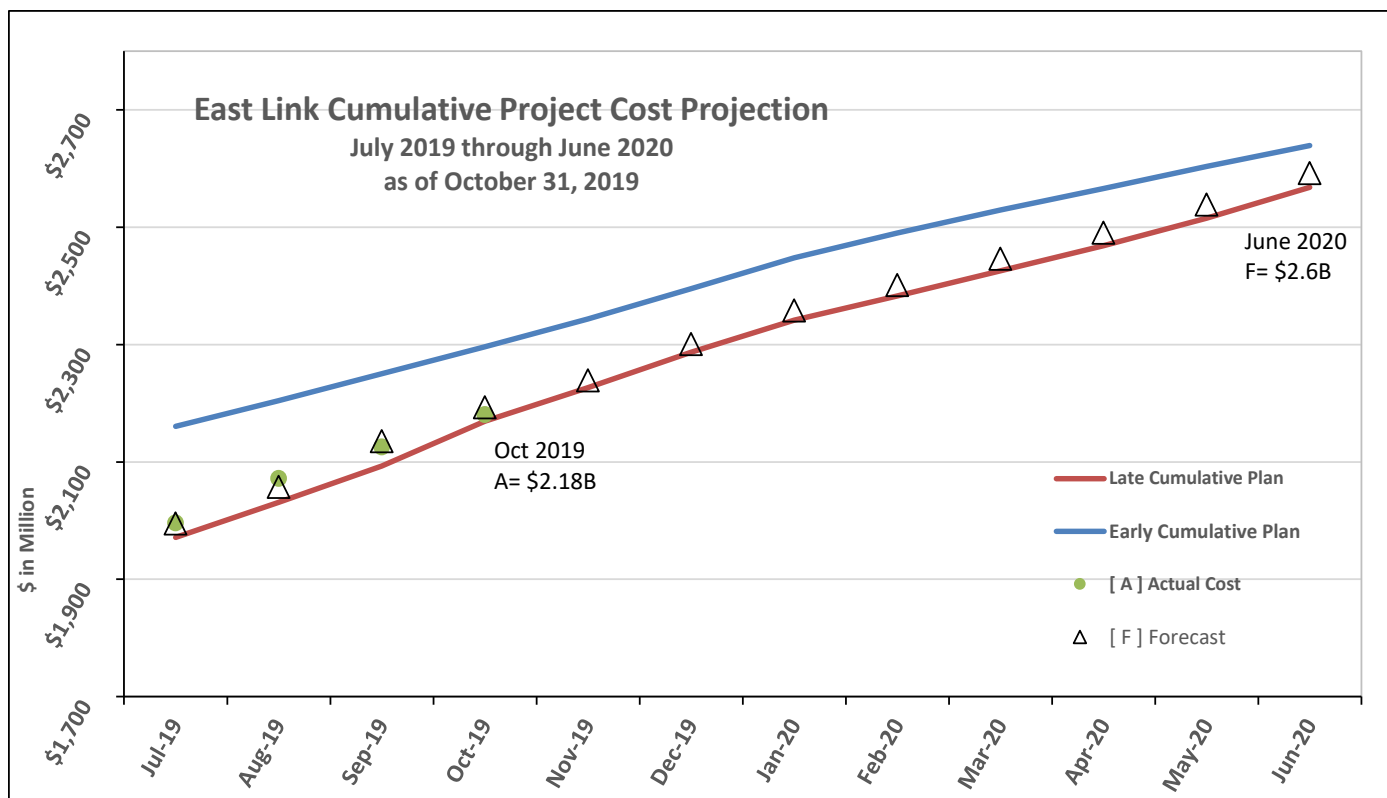
Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$186.2	\$186.2	\$86.7	\$86.5	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.8	\$54.8	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$245.9	\$221.2	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$196.7	\$111.5	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$38.3	\$27.1	\$52.2	\$0.0
Construction	\$2,544.3	\$2,544.3	\$2,182.5	\$1,410.3	\$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	\$270.2	\$269.2	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$3,074.9	\$2,180.7	\$3,677.2	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$744.6	\$949.7	\$893.5	\$673.3	\$954.7	(\$210.1)
20 Stations	\$397.7	\$474.2	\$439.5	\$249.9	\$469.2	(\$71.5)
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$808.5	\$568.3	\$478.3	\$351.6	\$604.8	\$203.7
50 Systems	\$353.8	\$367.9	\$347.1	\$117.3	\$331.0	\$22.8
Construction Subtotal (10 - 50)	\$2,304.6	\$2,360.1	\$2,158.3	\$1,392.1	\$2,359.8	(\$55.2)
60 Row, Land	\$288.5	\$288.5	\$270.2	\$269.2	\$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	\$646.5	\$519.5	\$889.5	\$8.9
90 Unallocated Contingency	\$182.9	\$136.6	\$0.0	\$0.0	\$136.6	\$46.2
Total (10 - 90)	\$3,677.2	\$3,677.2	\$3,074.9	\$2,180.7	\$3,677.2	(\$0.0)

Project Cash Flow Projection

The East Link cost projection continues to progress within the planned expenditure as construction activities continue to pickup. This period's project to date expenditure topped out at approximately \$55M where Construction Phase is responsible for about 89.2% or approximately \$50M of October's expenditure. Total project cost incurred to date topped \$2.18B, to which over \$1.36B was recorded in the Construction Phase. The project expenditures continue to pick up and is predicted to rise to approximately \$2.6B by June 2020.



Risk Management

The 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.

The 3rd QTR 2019 risks updates have been completed. The Risk Mitigation Milestone #4 (Completion of SEM Tunneling) report is completed and given the current risk profile in the project, there are sufficient schedule and budget in the project to complete in accordance to baseline. The 3rd QTR 2019 risk registers are being prepared for update. The following are the current top project wide risks areas:

- Compliance with quality, safety and environmental requirements.
- Design changes during construction, particularly at technically complex stations such as Mercer Island, Bellevue Downtown and Redmond Technology.
- Interfaces between contracts, agency supplied equipment and third party jurisdictions.
- International District Station coordination of pre-requisite work that leads up to East Link tie in to mainline operations work in 1st QTR 2020.

Contingency Management

East Link project budget was baselined on April 2015 with a total contingency of \$795.9M. At the end of this period, all major construction contracts have been procured, the total contingency balance stands at \$361.5 (previously \$363.0). 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 was drawn down for an aggregate of approximately \$1.5M due to predominantly construction changes, leaving a balance of \$221.2M. The contingency draw in this period is primarily driven by aggregation of construction change orders in the project, primarily the construction contracts.

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

Contingency Status

Contingency Type	Baseline		Current Status	
	Amount	% of Total Budget	Amount Remaining	% of Work Remaining
Design Allowance	\$184.1	5.0%	\$3.6	0.2%
Allocated Contingency	\$428.9	11.7%	\$221.2	14.3%
Unallocated Contingency	\$182.9	5.0%	\$136.6	8.8%
Total	\$795.9	21.6%	\$361.5	23.3%

Contingency by Type

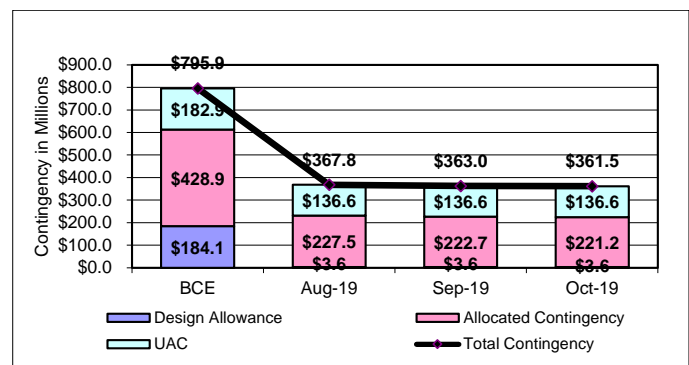
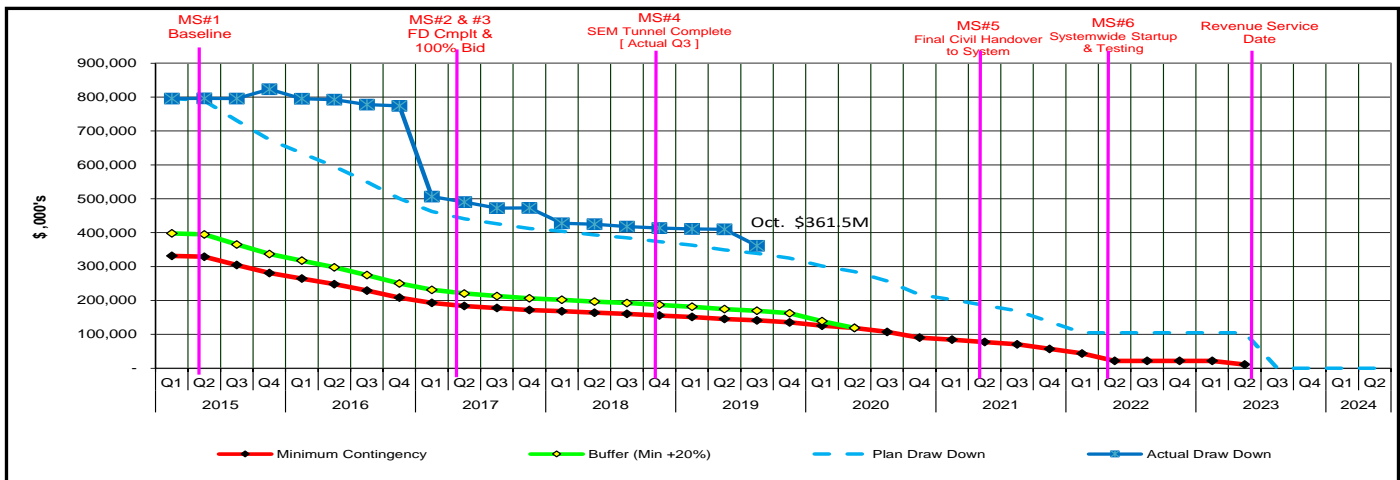


Table figures are shown in millions.

Contingency Drawdown

East Link Project’s total contingency drawdown continues to trend within plan with an overall contingency balance at approximately \$367.8M and with all major construction contracts procured, remains above the baseline draw down projection and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels. The contingencies at the end of October represented the monthly draw of about \$1.5M to bring the contingency balance from September’s \$362.9M to October’s \$361.5M predominantly due to various construction change orders.



Contingency Drawdown as of October 31, 2019

Link Light Rail East Link Extension



Project Schedule

The Integrated Master Schedule is presented below.

E130 prepared the East Channel Bridge for handover to E750, and continued installing track and track bridges on the HMH floating bridge; work continued at both stations; continued early work at International District Station.

E320 continued excavation and track slab work, and OCS foundations; set elevator #2 pit at S. Bellevue Station; paved over 112th undercrossing.

E330 completed final lining for typical tunnel section; continued reinforcement and placement at enlarged section.

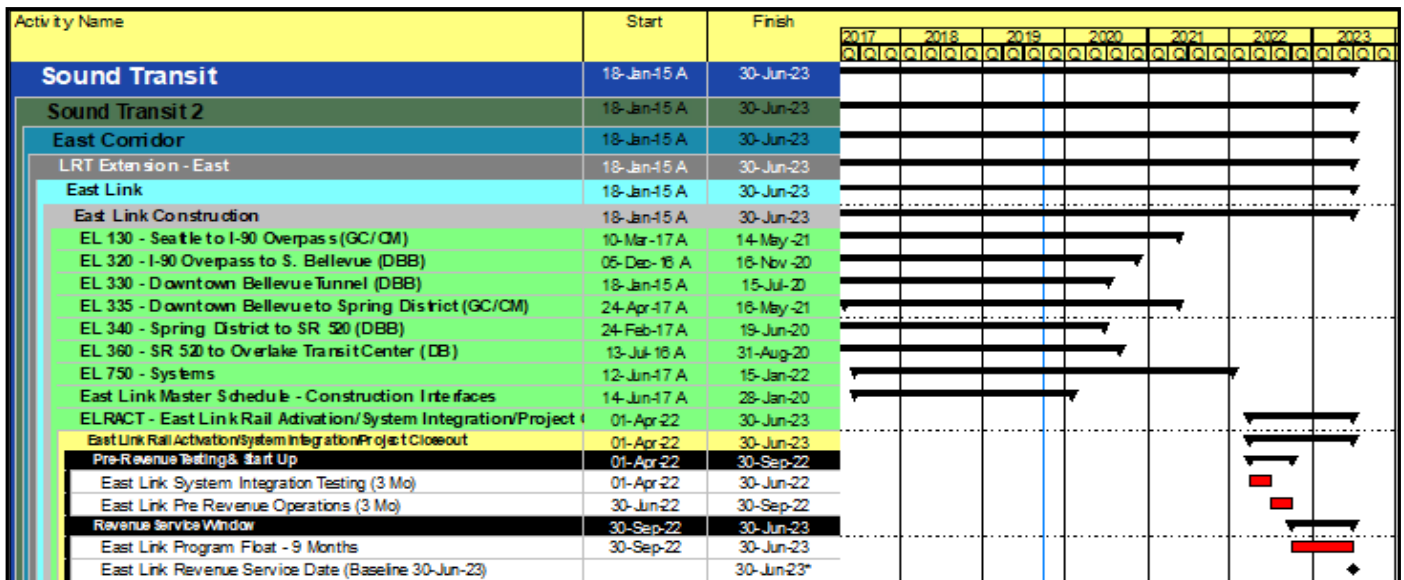
E335 continued restoration at 110th Ave NE; continued plinth pours and ductbank installation on aerial guideway; continued work at all stations.

E340 continued placing OCS foundations on aerial guideway; placed curb, gutter, and sidewalk on 136th Pl; continued work at 130th Station.

E360 continued placing track slab and began placing skeleton track at the west end of the alignment; continued casting plinths on aerial guideway; placed ballast for at-grade guideway; continued work at both stations.

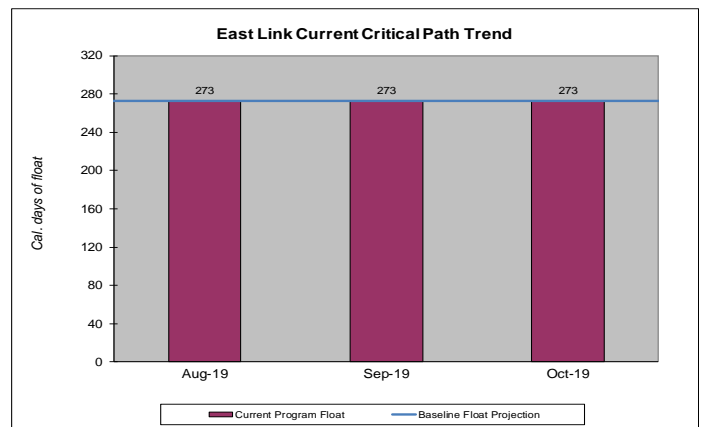
E750 Systems contractor continued procuring equipment and continued mobilizing for construction; preliminary work continued at International District Station; prepared to start work on East Channel Bridge.

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



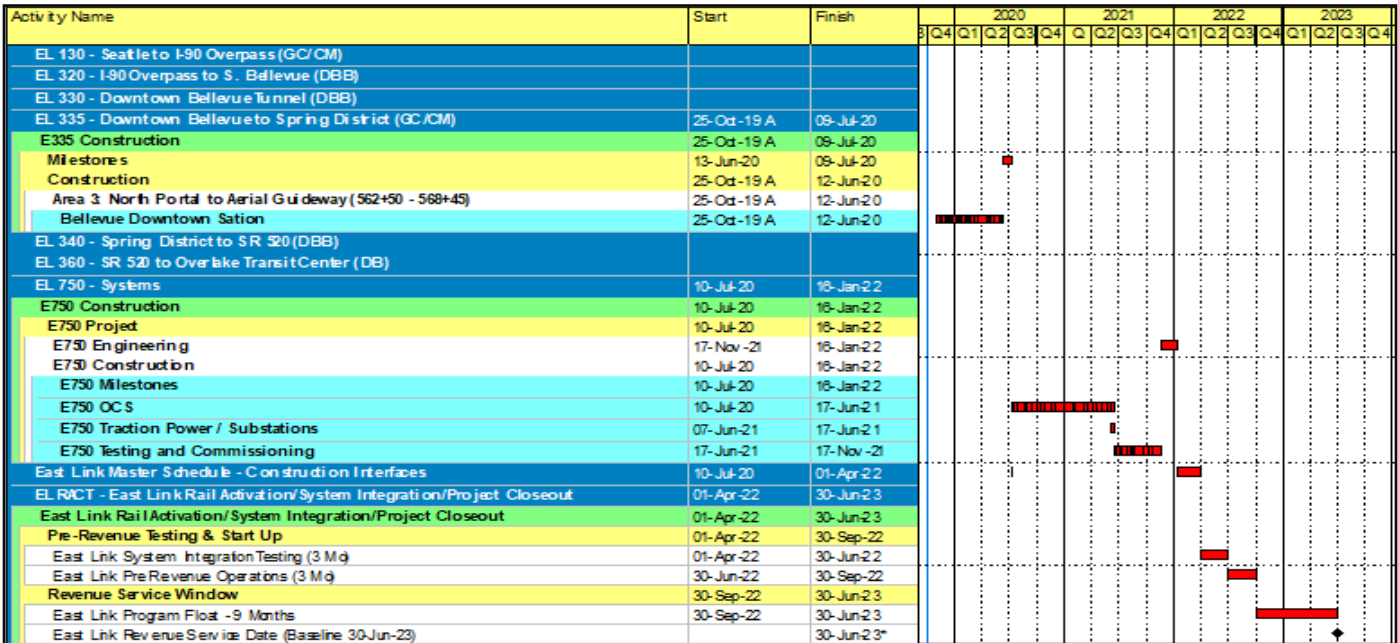
Project Float

East Link was baselined with 273 days of program float. No float has been used to date.



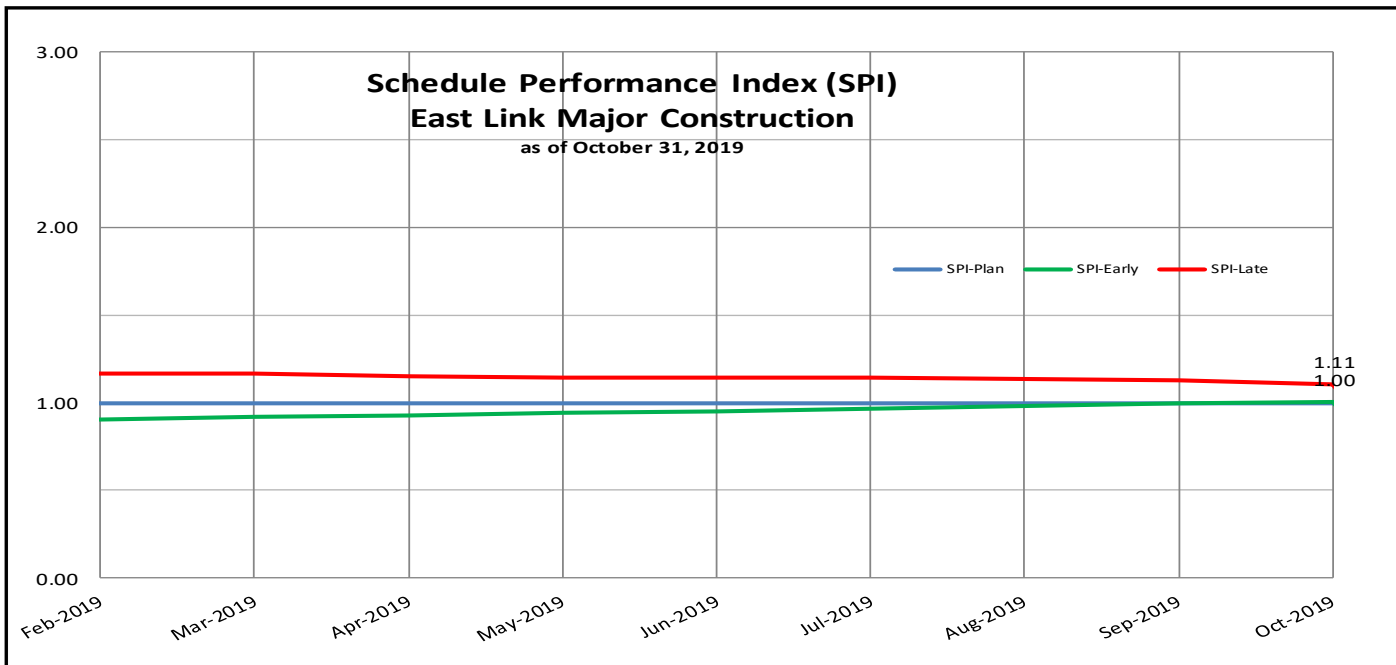
Critical Path Analysis

The East Link critical path this month runs through the Bellevue Downtown Station on the E335 contract to the handover to the E750 systems contractor. It then follows OCS installation. Other civil contracts continue to be closely monitored for potential impacts to the E750 schedule.



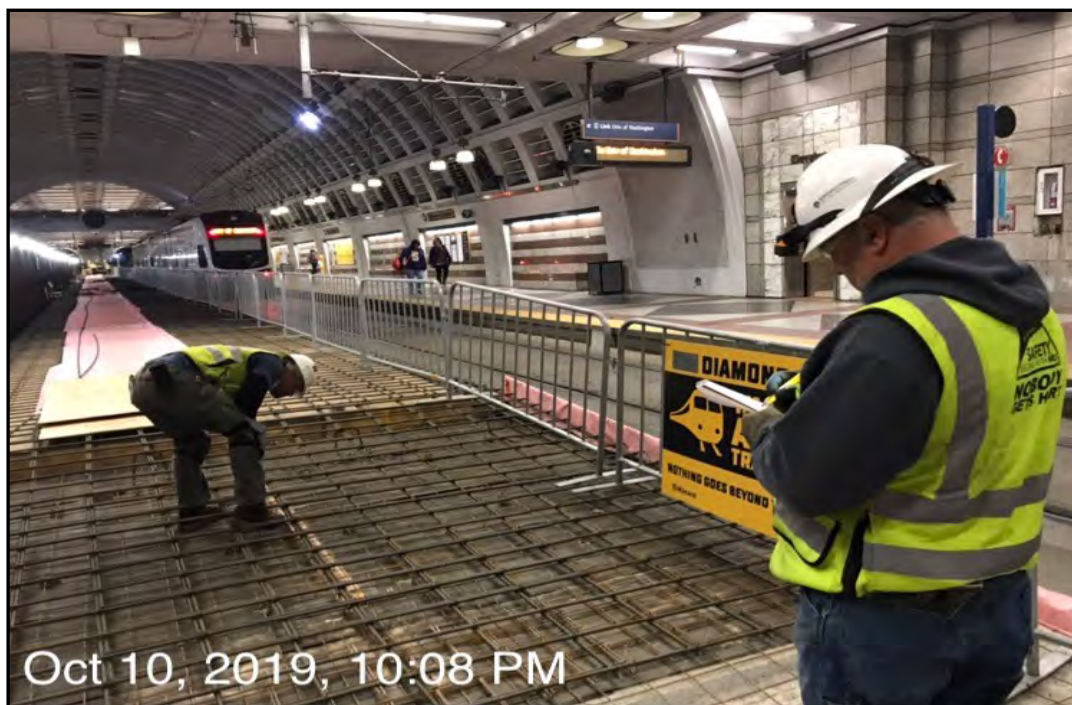
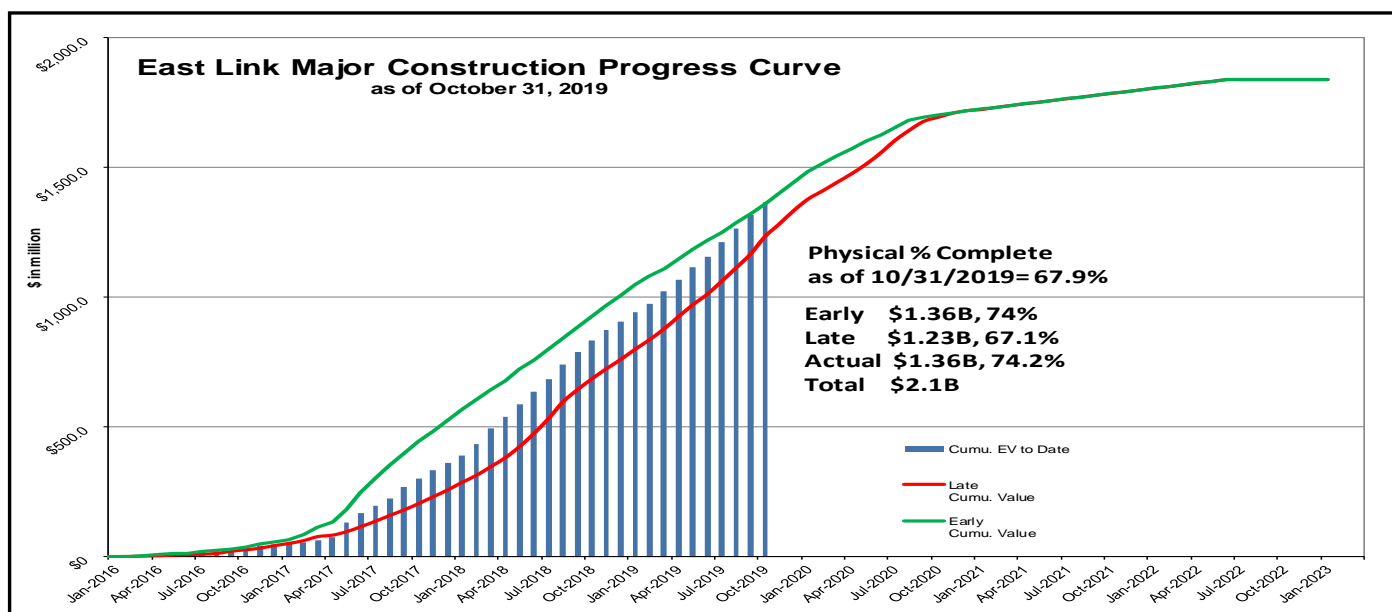
Schedule Performance Index

The early Schedule Performance Index (SPI) for East Link's Major Construction Packages remains at 1.00 for this period, which indicates continued steady performance. The late SPI of 1.11 shows that in general, performance is satisfactory.



Project Cash Flow Projection

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 October, performance continues to trend positively toward the early projection as drawn



E130 Seattle to South Bellevue : Inspection prior to center platform concrete pour in Pioneer Square Station .

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 resulted in owner and tenant residential and commercial relocations. Property acquisition and relocations are mostly complete, with limited processing of relocation claims and coordination of property transfers with the City of Bellevue remaining. The right-of-way program status for this period is summarized in the following table:

East Link Extension Acquisition Status					
ACQUISITION				RELOCATION	
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
239	246	234	228	229	226

** All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.*

Community Outreach

- Ongoing distribution of weekly construction alerts for maintenance of traffic activities for Mercer Island, Bellevue and Redmond. Coordinated many briefings and meetings with impacted neighbors about upcoming major traffic changes including but not limited to full closures.
- Ongoing engagement with individual property owners, members of the public, and impacted neighbors on a variety of concerns including demolition, noise wall construction, dust control, signage, night time noise, traffic, access, maintenance of traffic, irrigation line repairs.
- Coordinated many agency staff and work products for the bus loop traffic switch at Overlake Transit Center slated for mid-December (E360 segment).
- Engaged in a major outreach effort for the 2 weekend tunnel closure between SODO and Capitol Hill Station in support of Connect 2020 East Link tie-in at International District Station (E130 segment).



E335 Downtown Bellevue to Spring District: Bridge spanning over Highway I-405 along NE 6th Street on October 31, 2019

Sound Transit Board Actions

Board Action	Description	Date
	None this period	

Construction Safety

Data/ Measure	October 2019	Year to Date	Project to Date
Recordable Injury/Illness Cases	4	30	69
Days Away From Work Cases	2	7	14
Total Days Away From Work	87	582	966
First Aid Cases	9	82	203
Reported Near Mishaps	3	46	236
Average Number of Employees on Worksite	1309	-	-
Total # of Hours (GC & Subs)	209,051	1,919,468	4,389,650
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	3.83	3.13	3.14
LTI Rate	1.91	0.73	0.64
Recordable National Average	3.00	3.00	3.00
LTI National Average	1.20	1.20	1.20
Recordable WA State Average	6.00	6.00	6.00
LTI WA State Average	1.90	1.90	1.90

Note1: 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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Major Construction Contract Packages

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

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

Status: Completed and Operational.

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 Station – 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, component and product designs as well as meetings with civil contractors with regards to the Coordinated Installation Plan (CIP), off site TPSS worksite interface inspections and surveys of E130.



E340 Bel-Red: Placing pre-cast panels at Bel-Red/130th Ave Station.

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

Current Progress

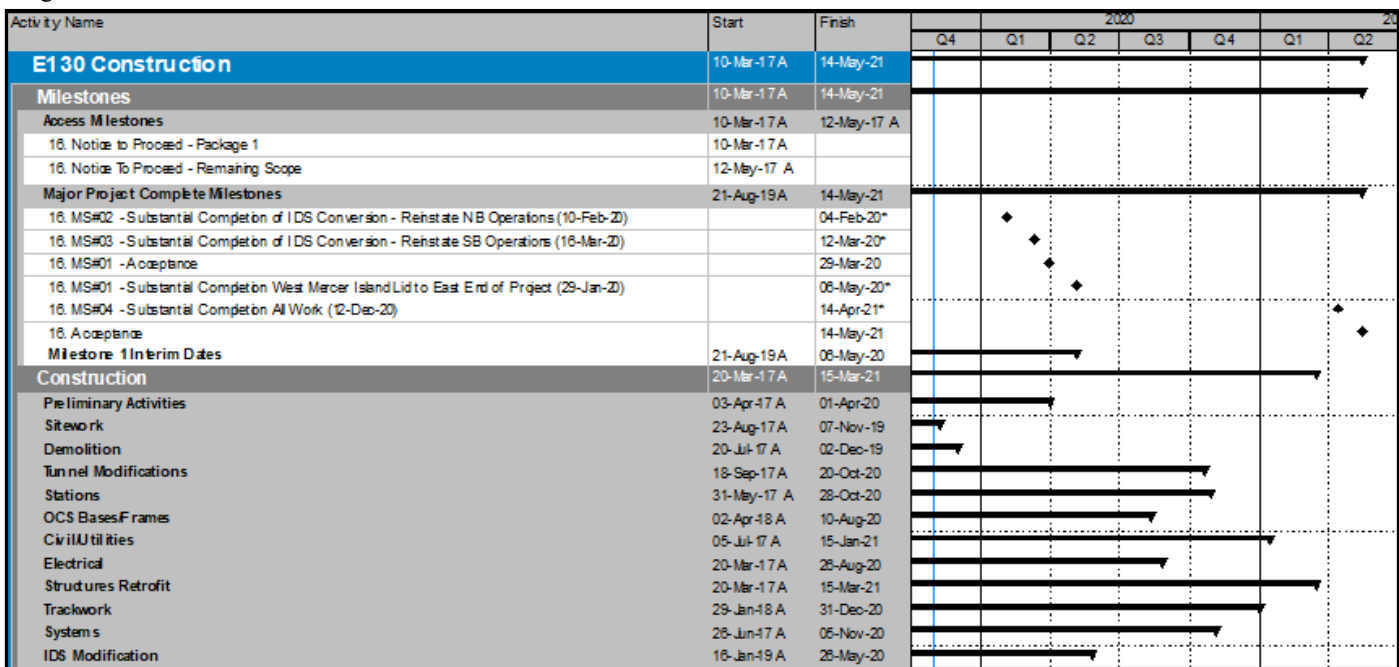
West Segment: Ongoing demo, utility work, isolation mat installation, rail installation at International District Station; complete major construction activities for temporary platform at Pioneer Square Station, and associated demobilization of equipment; continue electrical, structural work in Mt. Baker Tunnel; progress structural work at Judkins Park Station.

Center Segment: Cathodic protection work continues; ongoing installation of dowel bars for EB/WB transition plinths and emergency guide rail placement; progress placement and installation of modular track bridges.

East Segment: Progress interior station finishes, West Head House & platform lighting, and East Head House commissioning at Mercer Island Station; continue mechanical / structural modifications and track installation in Mercer Island Tunnel.

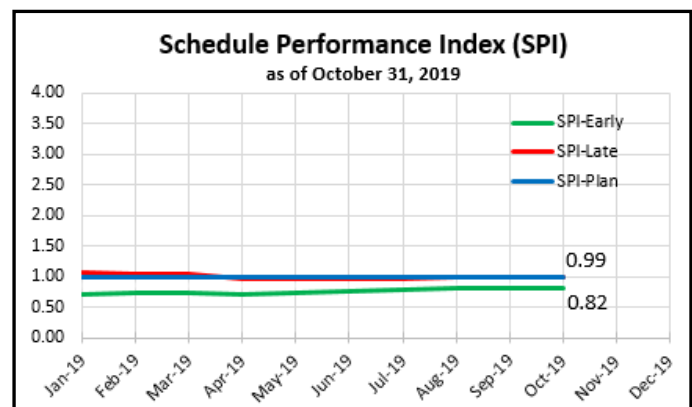
Schedule Summary

The critical path for this project currently runs through cathodic protection on the floating bridge. The contractor is currently behind on all milestones; however, they have been coordinating with the E750 systems contractor to ensure that access is preserved. In November, E130 is anticipated to hand over the East Channel Bridge to allow E750 to start work on the East Link alignment.



Schedule Performance Index

This period, the SPI early is 0.82, while SPI late is 0.99; these indices show the contractor is behind their early plan, but remains nearly on-target with their late finish plan and should reach Substantial Completion by the required finish date. However, new pressures to the schedule have been identified which may affect the contractor’s ability to complete remaining work as planned. It is anticipated the critical path will continue to run primarily through cathodic protection and final commissioning.



Link Light Rail East Link Extension



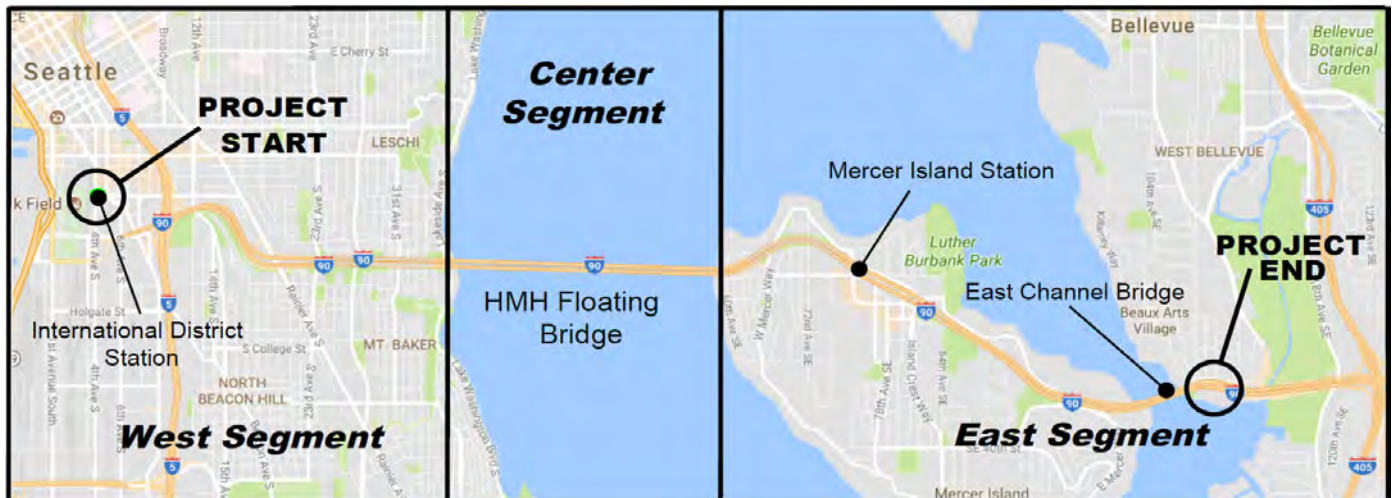
Next Period's Activities

- **West Segment:** Continue installation of Pioneer Square Station temporary platform, Judkins Park Station structures and platform, and IDS retrofit work.
- **Center Segment:** Progress cathodic protection coupon bonding; continue placement of Corkelast for direct rail attachment to floating bridge; winter work limitations on floating bridge begin.
- **East Segment:** Continue electrical/structures retrofits; advance MI Station finish work, West Head House elevator install, & platform canopy; advance concrete guideway & track installation in MI Tunnel.

Closely Monitored Issues

- Current East Segment activity progress to reach Milestone 1 (Revised) and potential impacts to E750.
- Coordination of rail tie-in activities at the International District Station.
- Requirement for shielding non-conductive wires for the cathodic protection on floating bridge.

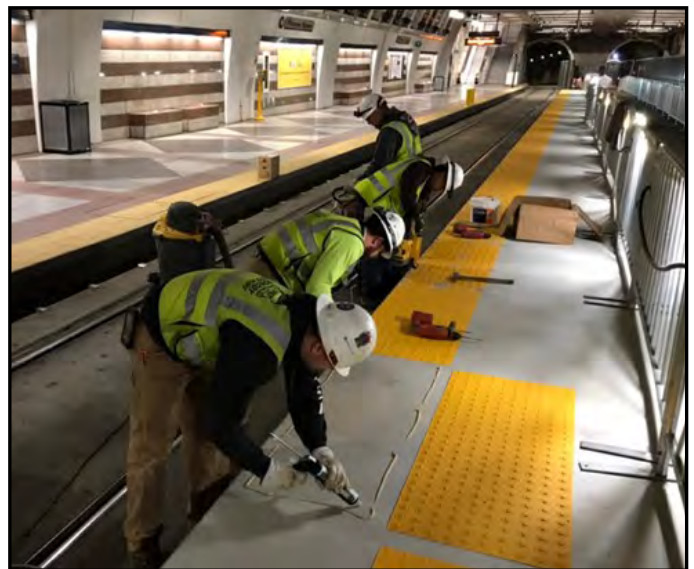
E130 Construction Segments



Cost Summary

Present Financial Status	Amount
E130 Contractor - Kiewit-Hoffman	
Original Contract Value (incl. Phase 2 MACC)	\$665,000,000
Change Order Value	\$25,100,864
Current Contract Value	\$689,145,864
Total Actual Cost (Incurred to Date)	\$474,385,257
Percent Complete	67.58%
Authorized Contingency	\$46,660,541
Contingency Drawdown	\$25,100,864
Contingency Index	1.3

Contract Value excludes Betterment



Installing tactile paver access tiles, temporary platform at Pioneer Square Station

Contract E320 – South Bellevue

Current Progress

I-90 Flyover: Continued form, rebar and pour (FRP) track slab and front side of soldier pile wall at traction power substation (TPSS); Pour curbs on track span and continue FRP work on deck spans.

Bellevue Way SE: Continued overhead catenary (OCS) foundation/pole work; Continued shotcrete work on trench walls and retaining wall work; install rock faced wall; install storm drains and underdrains.

S. Bellevue Sta./P&R: Set elevator #2 pit equipment; install and pretest system fire alarm and access control on north half of garage; continued curtain wall work and setting station skylights and metal stud framing.

Wye-to-East Main: Pave over undercrossing; continue underground raceway work; pour curb and gutter and fine grade sidewalks; perform underground work for traffic signal and light poles.

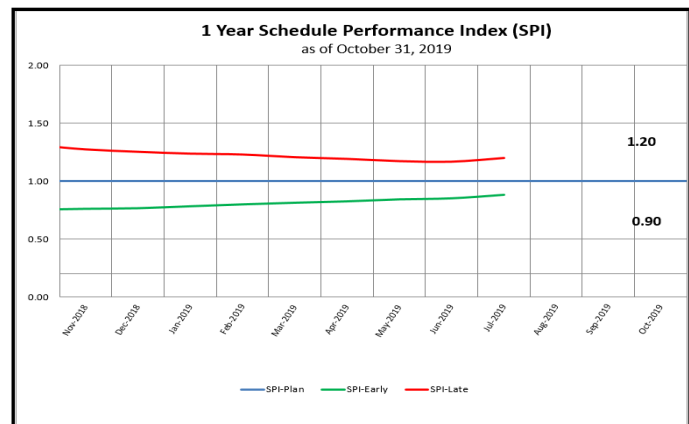
Schedule Summary

The critical path for this project continues to run through the 112th undercrossing and trench along Bellevue Way SE. The contractor is currently forecast to achieve all milestones on schedule.

Activity Name	Start	Finish	2020				
			Q4	Q1	Q2	Q3	Q4
E320 Construction	06-Dec-18 A	15-Nov-20	[Gantt bar]				
Milestones and Summary	06-Dec-18 A	15-Nov-20	[Gantt bar]				
Contract Milestones	06-Dec-18 A	15-Nov-20	[Gantt bar]				
Limited Notice to Proceed	06-Dec-18 A		[Gantt bar]				
Notice to Proceed	13-Feb-17 A		[Gantt bar]				
Milestone 3A - Clear & Grub Sweyolocken (Start of Wetland Fill Work-365D)		21-Dec-18 A	[Gantt bar]				
Milestone 1 - (Alternative Phase B2.1 Not Used)		31-May-19 A	[Gantt bar]				
Milestone 3B - Clear & Grub Coal Creek		06-Nov-19*	[Gantt bar]				
Milestone 4 - SIFT & SCADA Complete (NTP+1160D)		28-Apr-20*	[Gantt bar]				
Milestone 5 - Acceptance of South Bellevue Station (NTP+1220D)		06-Jul-20*	[Gantt bar]				
Milestone 2 - Final Restoration of Bellevue Way (Start+897D)		09-Aug-20*	[Gantt bar]				
Milestone 6 - Required Substantial Completion (NTP+1364D)		15-Nov-20*	[Gantt bar]				
Construction-1	21-Apr-17 A	27-Oct-20	[Gantt bar]				
Mobilization	21-Apr-17 A	16-Jul-18 A	[Gantt bar]				
Area A - I-90 Mainline to Bellevue Interchange - Sta EB405+54 to EB439+20	16-Jun-17 A	27-Oct-20	[Gantt bar]				
Area B - Bellevue Way SE, SE 30th St to 112th Ave SE Wye - Sta EB439+20 to EB476+75	30-May-17 A	27-Oct-20	[Gantt bar]				
Area C - 112th Ave SE, 112th Ave SE Wye to SE 8th - Sta EB476+75 to EB508+00	13-Jun-17 A	18-Sep-20	[Gantt bar]				
Area D - 112th Ave SE to SE 8th St to Main St - Sta 508+00 to EB528+25	22-May-17 A	25-Aug-20	[Gantt bar]				
Area E - Coal Creek Stream Enhancement	08-Jul-18 A	06-Nov-19	[Gantt bar]				
Area F - Sweyolocken Mitigation	23-Apr-18 A	21-Dec-18 A	[Gantt bar]				

Schedule Performance Index

The SPI early remains at 0.9 this month and the SPI late remains at 1.2. The contractor continues to remain ahead of their late finish plan and are slightly behind their early plan. Affecting the schedule are station escalators, metal panels and curtain wall work being behind. Critical path remains the work on 112th with issues due to weather for paving of 112th so traffic can be rerouted.



Link Light Rail East Link Extension



Next Period's Activities

- **I-90 Flyover:** All civil work complete; install underdrains at TPSS, continue coping wall work and OCS foundations.
- **Bellevue Way SE:** Continue constructing rock retaining walls; continue underdrain work; continue shotcrete work.
- **S. Bellevue Sta./P&R:** Continue work on elevator #2 in the garage; continue curtain wall work on station and system fire alarm work in garage.
- **Wye-to-East Main:** Continue paving of undercrossing and pouring sidewalks; continue pouring curb and gutters and FRP OCS poles.

Closely Monitored Issues

- Working adjacent to wetland areas, environmental compliance concerns.
- Refinement to the three-lane reversible Maintenance of Traffic (MOT) on Bellevue Way SE.



Cost Summary

Present Financial Status	Amount*
E320 Contractor - Shimmick/Parsons JV.	
Original Contract Value	\$319,859,000
Change Order Value	\$3,925,414
Current Contract Value	\$323,794,414
Total Actual Cost (Incurred to Date)	\$241,121,735
Percent Complete	69.56%
Authorized Contingency	\$38,532,000
Contingency Drawdown	\$3,925,414
Contingency Index	6.9

* \$ Amount excludes betterments and STArt.



South Bellevue Station Platform

Contract E330 – Downtown Bellevue Tunnel

Current Progress

- **Tunnel Crown:** Completed final lining for typical tunnel section. Disassembled rebar gantry and form carrier and removed from site. Continued installing reinforcement and place concrete at enlarged section of the tunnel and center wall. Completed soffit, curbs, stairs and lockable cover over stairwell at Mid-Tunnel shaft.
- **South Portal:** Continued to maintain the temporary erosion/sediment control and the traffic control at the South Portal (SP) and at the mid-access shaft.

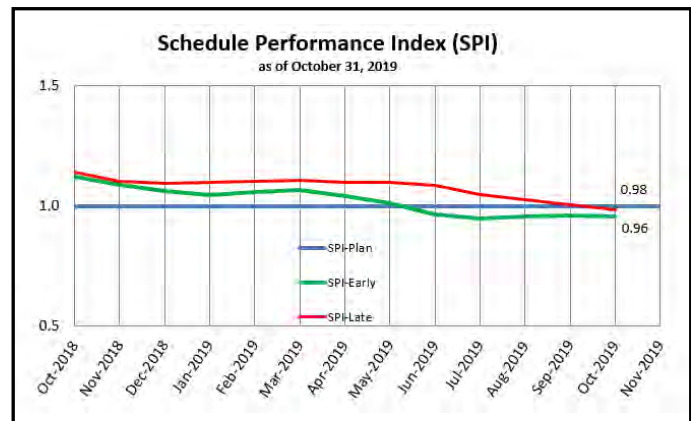
Schedule Summary

The critical path for this contract follows the final tunnel lining and the completion of the South Portal structure. The contractor is forecast to achieve Substantial Completion in time to meet their contractual requirements.

Activity Name	Start	Finish	2018	Q4	Q1	Q2
E330 Construction	15-Dec-15 A	16-Jun-20				
CONSTRUCTION	15-Dec-15 A	16-Jun-20				
MILESTONES/CONSTRUCTION EASEMENTS	15-Dec-15 A	16-Jun-20				
MILESTONES	15-Dec-15 A	16-Jun-20				
CALCULATED MILESTONES	15-Dec-15 A	16-Jun-20				
L-NTP	15-Dec-15 A					
NTP	08-Feb-16 A					
MLST1 - Acceptance of the 110th Ave Controlled Low Strength Material Work		14-Oct-16 A				
MLST2 - Acceptance of CO #006 Work		14-Oct-16 A				
MLST3 - Substantial Completion of all Work from Station EB 562+64.52 to Station EB 562+47.91		17-Feb-20				
MLST4 - Substantial Completion Total Contract		16-Jun-20				
MOBILIZATION	08-Feb-16 A	19-Nov-19				
SITWORK	29-Feb-16 A	16-Jun-20				
PRECONSTRUCTION	21-Mar-16 A	08-May-20				
TRAFFIC CONTROL	25-Mar-16 A	27-Dec-19				
SURVEY & MONITORING	29-Feb-16 A	03-May-18 A				
NORTH PORTAL AREA	13-Jun-16 A	14-Oct-16 A				
CAST IRON PIPE REPLACEMENT	08-Feb-17 A	08-Apr-17 A				
SOUTH PORTAL AREA	29-Feb-16 A	16-Jun-20				
SKYLINE BUILDING RETROFIT	17-Jan-17 A	18-Oct-17 A				
TUNNELING	01-Feb-17 A	23-Jan-20				
EXCAVATION	01-Feb-17 A	20-Jul-18 A				
FINAL TUNNEL LINING	20-Jul-18 A	18-Dec-19				
FINAL TUNNEL FINISHES	09-Sep-19 A	23-Jan-20				
MID TUNNEL	08-Mar-18 A	21-Nov-19				
DEMOBE	13-Mar-17 A	03-Jun-20				

Schedule Performance Index

In October, the SPI early is at 0.96 and the SPI late is at 0.98. The SPI curves lagging behind as expanded zone soffit and duct bank placement took longer than planned. Cut and cover wall work was postponed to next month and resources focus on tunnel work.



Link Light Rail East Link Extension



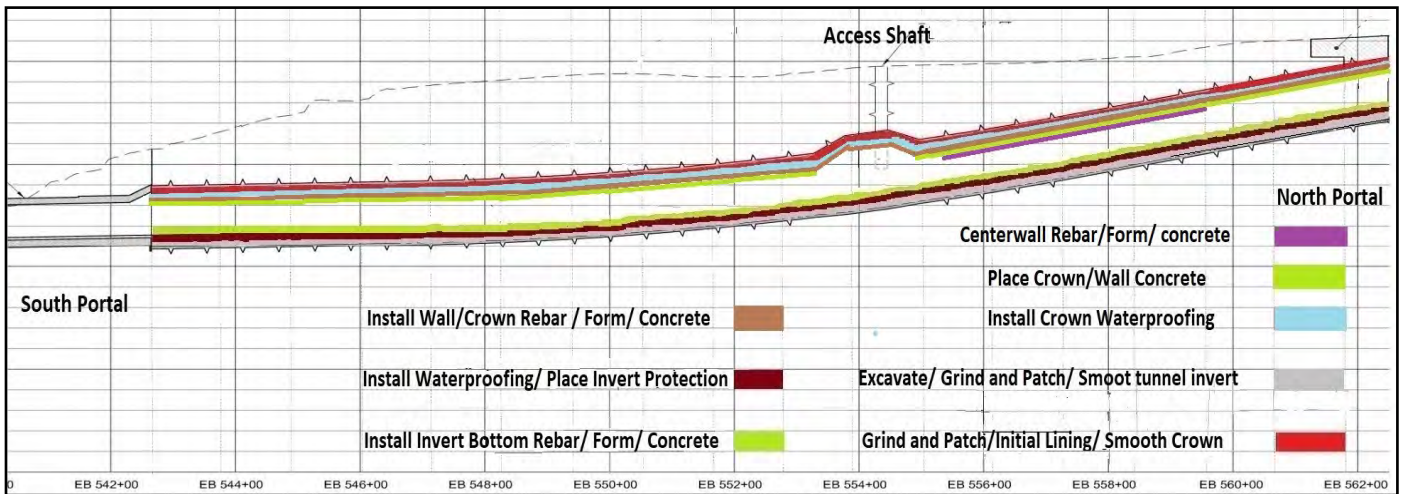
Next Period's Activities

- **South Portal:** Continued to maintain the temporary erosion/sediment control and the traffic control at the SP and at the mid-access shaft. Continue rebar, form and placing exterior wall of cut and cover.
- **Tunnel Crown:** Continue rebar and shotcrete for center wall and reinforcing expanded zone. Commence forming and placement at expanded zone. Commence tunnel duct bank conduit, walkway from north to south of tunnel.

Closely Monitored Issues

- Center wall reinforcing is high in some locations. Working through clearance requirements between Top of Wall and tunnel crown for installation of fire rated material .
- Shotcrete in the crown through the enlarged section of the tunnel may prove to be more difficult than Contractor envisioned, which put on time completion at risk. ST and contractor are monitoring the issue closely.

E330 Downtown Bellevue Tunnel overall progress (As of 10/25/2019)



Cost Summary

Preset Financial Status	Amount
E330 Contractor– Guy F Atkinson Construction, LLC.	
Original Contract Value	\$121,446,551
Change Order Value	\$1,459,432
Current Contract Value	\$119,987,119
Total Actual Cost (Incurred to Date)	\$109,257,309
Percent Complete	89.85%
Authorized Contingency	\$13,604,087
Contingency Drawdown	\$1,459,432
Contingency Index	



Mid-Tunnel Shaft stair case and top lid rebar and form

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

Current Progress

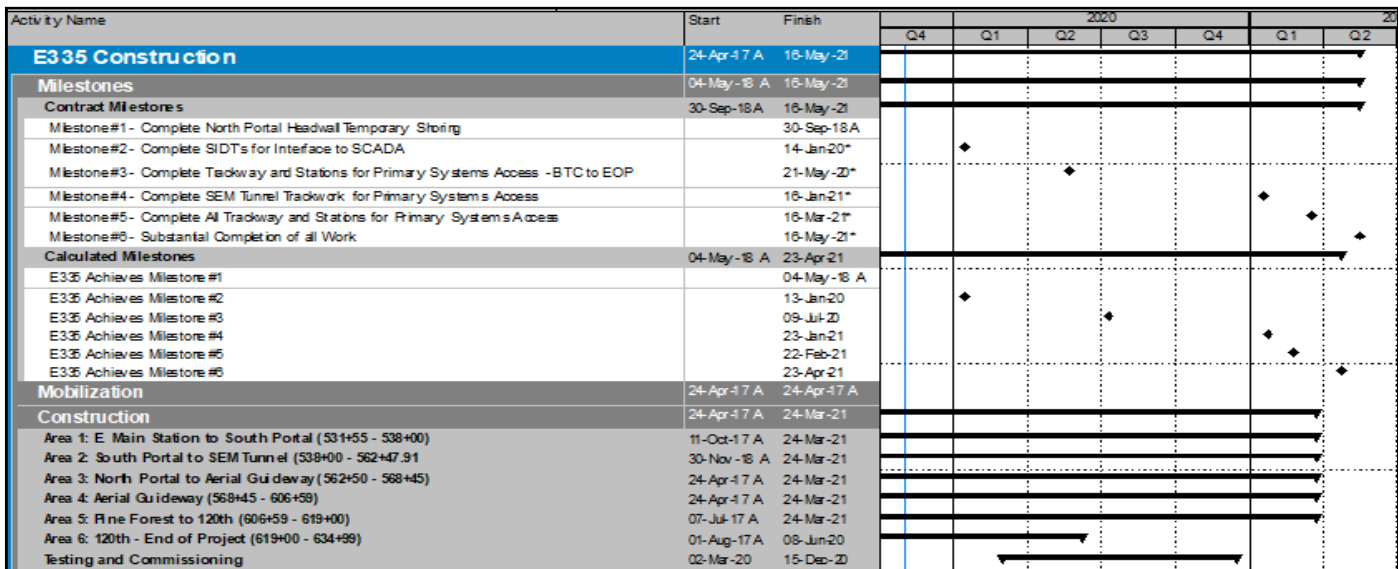
Area 3: North Portal (NP)/ Bellevue Downtown Station (BDS): Continued restoration 110th Ave by laying asphalt and pavement. Continued formwork, reinforcing, concrete placement for mid level slab, waterproofing public plaza level and install underground utility platform.

Area 4: Aerial Guideway/ Wilburton Station: Continued track works, form and concrete pour tracks plinth. Continued install duct bank. Completed install acoustic panels on Aerial Guideway. At Wilburton Station: Continued formwork, rebar, concrete placement of interior beams and install shoring towers for platform deck.

Area 6: 120th-124th Trench/Station: Continued install wall tile and curtain wall, fire protection, HVAC and MEP rough-ins. Completed waterproofing at plaza level. Continued installing pumps, wiring, entrance for elevators and installing handrail decking wiring, and test escalators.

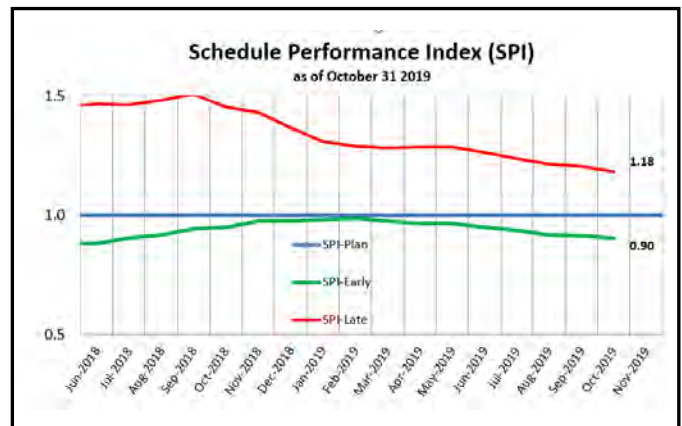
Schedule Summary

There are two primary critical paths on this contract, corresponding to the two handovers to the E750 Systems Contractor — one runs through BDS, and the other follows access to E330 tunnel in Area 2 and goes through the South Portal and its Electrical Building. Tunnel work will not start until mid-2020. The contractor is currently behind on their first systems handover milestone, but a recovery effort is underway to prevent impact to the E750 contract.



Schedule Performance Index

This period, the SPI early is at 0.90 and the SPI late is at 1.18. The numbers indicate that the contractor continues to lag the early plan yet ahead of late planned curve. These factors contributed to SPI's early falls behind: Construction progress for Stations—Eastmain, BDS, Wilburton and 120th—are behind schedule and slower than planned. Several activities, such as roadwork at intersections and the excavation of the channel for Sturtevant Creek, are happening later than shown in the baseline. Track construction on Aerial Guideway is behind and cause delay to installation of signal ductbank.



Link Light Rail East Link Extension

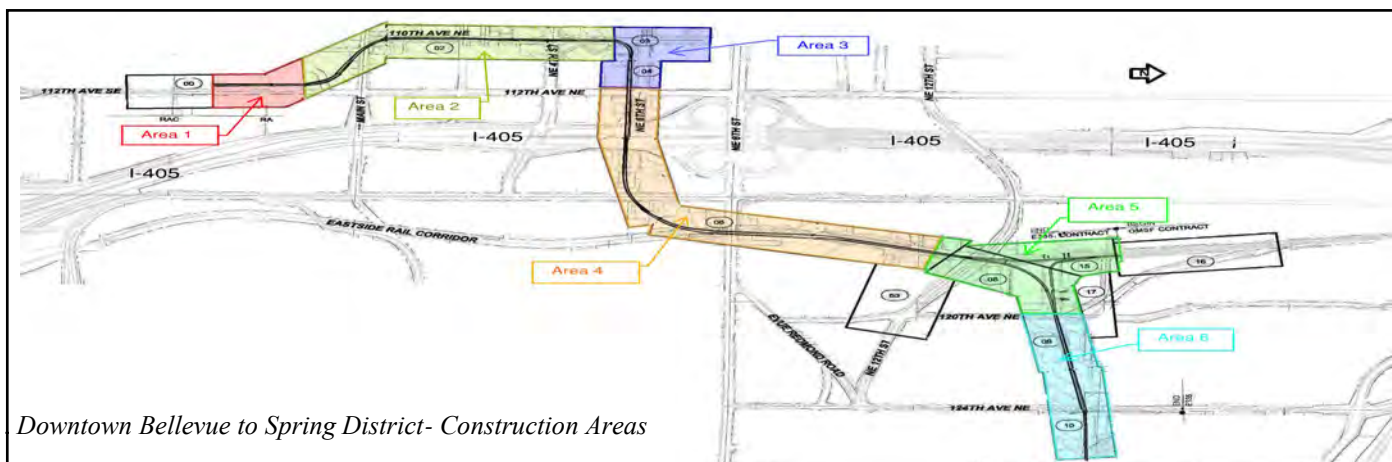


Next Period's Activities

- **Area 1:** Eastmain Station: Continue excavate for sound walls. Continue rebar, form, pour wall footings and install ductbank and drainage in the area.
- **Area 3:** North Portal (NP)/ Bellevue Downtown Station (BDS): Continue backfill and utility tie-ins at the North Portal and Plaza Demo. Continue 110th full closure for removal of temporary roadway and restoration. Continue footing/columns/wall formwork, reinforcing, and concrete placement at BDS .
- **Area 6:** 120th-124th Trench/Station: Continue finishes, Back Of House, and vertical transportation installation at 120th Station. Continue track work and Thermo Weld Special Track at BNSF Wye and trestle/aerial areas.

Closely Monitored Issues

- Design revisions for Mechanical, Electrical and Plumbing (MEP) stations, impacted City of Bellevue and permits issuance taking longer than anticipated. Currently all changes are finalized and issued to contractor. ST closely monitor the progress of work on site and installation of infrastructure to support these systems at Wilburton and BDS Stations.



Downtown Bellevue to Spring District- Construction Areas

Cost Summary

Present Financial Status	Amount
E335 Contractor– Stacy & Witbeck/Atkinson Joint Venture (SWA-JV).	
Original Contract Value (includes station scope)	\$393,798,210
Change Order Value	\$8,781,611
Current Contract Value	\$402,579,821
Total Actual Cost (Incurred to Date)	\$244,607,637
Percent Complete	69%
Authorized Contingency	\$19,689,911
Contingency Drawdown	\$8,781,611
Contingency Index	



Plinth Rebar installation at Wilburton Station. (Area 4)

Contract E340 – Bel-Red

Current Progress

Aerial Guideway Decks: Continued forming the overhead contact system (OCS), setting screed rail and placing rebar.

130th Ave Station: Formed platform slab on the south-side, began rebar placement, grading entry area. Began setting rail at the east-side entry and installed track boxes at insulated joints, began form placement on the embedded track. Installed plumbing on the north-side.

136th Pl NE: Curb, gutter, and sidewalk placement. Water service work at NE Spring Spur. Roadway grading at drive-ways and additional paving.

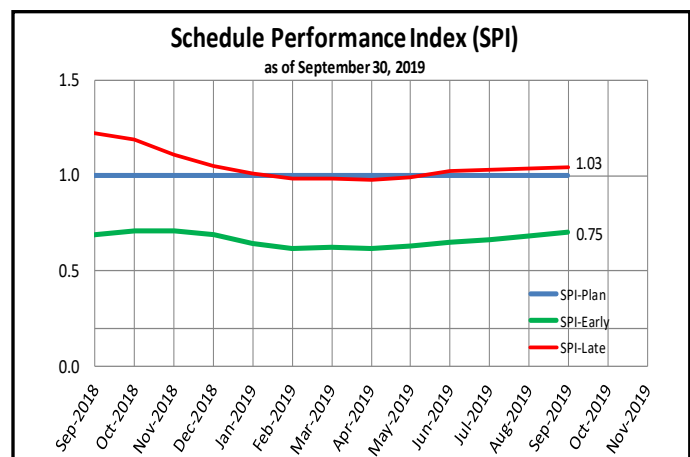
Schedule Summary

Critical path of this project segment now runs through the 130th Avenue Station, followed closely by work on 136th Place. The contractor’s September recovery update is presented below. ST continues to work with the contractor to recover schedule progress and to minimize any potential impacts to the E750 systems contractor.

Activity Name	Start	Finish	2021		
			Q4	Q1	Q2
E340 Construction	24-Feb-17 A	19-Jun-20			
CONSTRUCTION	24-Feb-17 A	19-Jun-20			
~MILESTONE S/EASEMENT S~	24-Feb-17 A	19-Jun-20			
~Milestones	24-Feb-17 A	19-Jun-20			
Contract Milestones	24-Feb-17 A	19-Jun-20			
Limited Notice to Proceed (LNTP - Feb 24 2017)	24-Feb-17 A				
Notice to Proceed (NTP - March 27, 2017)	27-Mar-17 A				
MS #1 West Tributary Mitigation Site - NTP + 537 DAYS (September 15, 2018)		14-Sep-18 A			
MS #2 Substantial West Tributary Mitigation Site - NTP + 828 DAYS (July 1, 2019) Ref. C		10-Jun-19 A			
MS #3 Acceptance of SDIT- NTP + 978 DAYS- (Nov 27, 2019)		23-Nov-19*			
MS #4 Substantial Completion - NTP + 1158 DAYS - (May 28, 2020)		19-Jun-20*			
~SUBMITTALS/PRELIMINARY ACTIVITIES~	24-Feb-17 A	07-Mar-20			
~MOBILIZATION~	24-Feb-17 A	18-Mar-20			
~SITWORK~	04-Apr-17 A	18-May-20			
~RETAINING WALLS~	12-Feb-18 A	12-Mar-20			
~AERIAL STRUCTURES~	15-May-17 A	04-Feb-20			
~STATIONS~	01-Aug-18 A	18-May-20			
~ELECTRICAL ITS~	02-Jan-18 A	13-Dec-19			
~FINISHES~	01-Oct-19	18-Mar-20			
~TRACKWORK~	13-Jul-18 A	15-May-20			
~LANDSCAPING/FLATWORK~	22-May-18 A	14-Feb-20			
~TESTING AND COMMISSIONING~	27-Aug-19 A	30-Apr-20			

Schedule Performance Index

There is no updated information received from the contractor for October progress due to the schedule noncompliance with the contract specification. For September progress, the SPI early is at 0.75 and the SPI late is at 1.03. Some of the contributing factors to the SPI late index are as follows. Progressed precast track wall, completing 37 track wall sections for a total of 227 completed. Track-work progress in the station area with eastbound and westbound track through the center platform area..



Link Light Rail East Link Extension



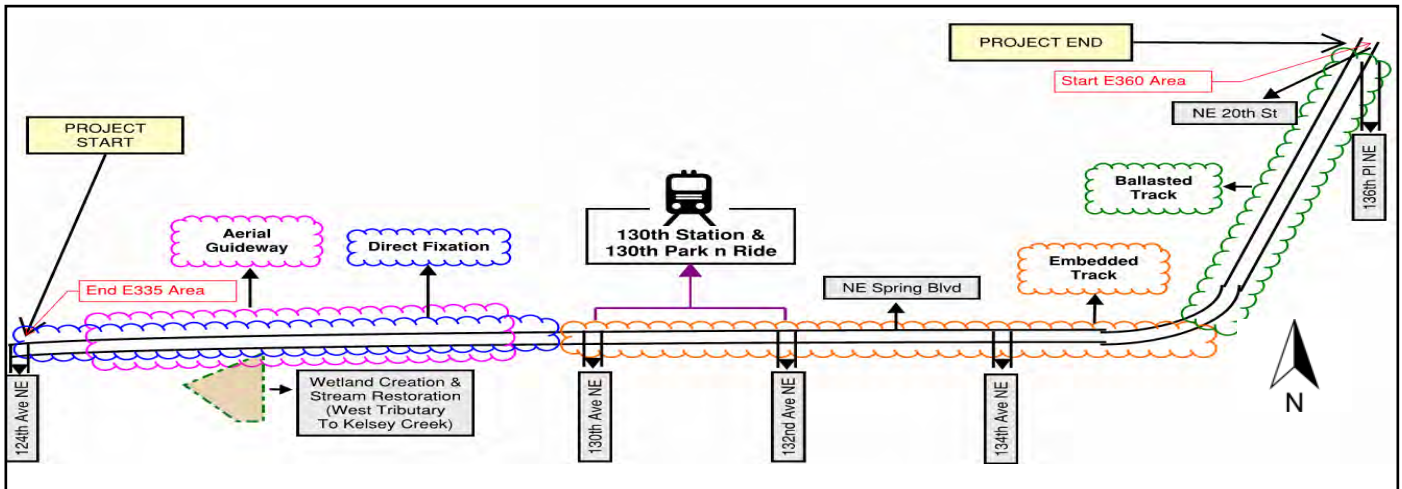
Next Period's Activities

- **Aerial Guideway:** Continue placing rebar / set screen rail, pouring overhead contact system (OCS).
- **130th Ave Station:** Place pre-cast concrete panels and structural steel for canopy roofs for entry canopies. Place rebar at main canopy slab. Continue rail distribution near the east entries. Track slab forming and rebar placement. Grad area at west entries.
- **NE Spring Blvd:** Place illumination foundations. Storm drain placement. Waterline removals. Begin roadway embankment on east of 134th Ave NE

Closely Monitored Issues

- The City of Bellevue Mid-Lakes Pump Station and a late start on the 124th Ave NE Bridge have potential to impact overall project schedule. Seattle City Light has agreed to allow early works while compatibility is discussed.
- The progress towards the opening of NE Spring Blvd between 132nd and 134th has been delayed due to the backfilling of existing eco block wall and storm water design.
- Procurement and installation of insulated joints the rail at the 130th Station is potentially going to create a delay.

E340 Construction Work Areas



Cost Summary

Present Financial Status	Amount
E340 Contractor– Max J Kuney	
Original Contract Value	\$93,170,012
Change Order Value	\$4,209,460
Current Contract Value	\$97,379,472
Total Actual Cost (Incurred to Date)	\$68,412,935
Percent Complete	68.1%
Authorized Contingency	\$9,317,000
Contingency Drawdown	\$4,209,460
Contingency Index	1.51



Welding the south-side station platform canopy to the columns, looking southwest.

Contract E360 – SR 520 to Redmond Technology Station (RTS)

Current Progress

Design: All design packages are issued for construction. Notice of Design Change work is still ongoing to include ST and KH initiated changes. Sound Transit initiated design changes: Rectangular Rapid Flashing Beacon, PSE Meter Relocation, BMS Monitoring Changes, Track Access at Signal House, and RTS Garage Insulation Cover.

Construction:

- Work Area (WA) #1: Continued forming and place track slab. Start skeletonize direct fixation track.
- WA #2: Continue aerial guideway guardrail, fire standpipe and drainage. Continue track skeletonize, plinths and final line.
- WA #3/4: Frame and sheath station kiosks. Continue trim out of MEP devices.
- WA #5: Final place ballast, continue track line, and start cross-over. Start landscape and restoration along SR 520.
- WA #6: Continued bus loop paving under garage. Exterior façade enclosure (curtain-wall/framing/sheathing/weather barrier/masonry). Station platform canopy roofing and start framing/sheath station kiosks. Start fit-out of electrical and elevator machine rooms. Ancillary room start drywall and finish activities.
- WA #7: Continued OVS Pedestrian Bridge paperclip ramp falsework prep for elevated ramp concrete placement.

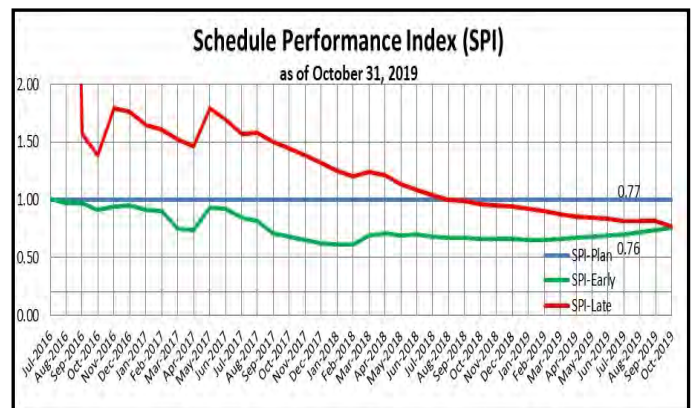
Schedule Summary

The critical path currently goes through the structural work at RTS and into the Leased Office Building near the station. The contractor’s October update, presented below, shows approximately two months of impact to their handover milestone to E750. A recovery schedule has been requested, and ST will work with the contractor to minimize impacts to follow-on work.

Activity Name	Start	Finish	Q4	Q1	Q2	Q3	Q4
E360 Construction	13-Jul-16 A	26-Jul-20					
Base Contract	13-Jul-16 A	26-Jul-20					
Design	13-Jul-16 A	20-Dec-19					
Design Milestones							
Design Submittals Start	03-Oct-16 A	01-Nov-19					
30% Design Submittals Complete		03-Oct-16 A					
60% Design Submittals Complete		28-Oct-16 A					
100% Design Submittals Complete		25-Feb-18 A					
IFC Design Submittals Complete		06-May-19 A					
Design Overhead	13-Jul-16 A	18-Jul-17 A					
Design and Engineering	13-Jul-16 A	20-Dec-19					
Construction	13-Jul-16 A	26-Jul-20					
General	13-Jul-16 A	26-Jul-20					
Project Milestones	13-Jul-16 A	26-Jul-20					
Notice to Proceed	13-Jul-16 A						
Civil/Systems 100% Design Submittal (NTP+300d) (09-May-2017)		10-Apr-17 A					
Milestone 3A for E750 Work		02-Apr-20*					
Milestone 3B Substantial Completion		25-Jul-20*					
WA #1 - Track Slab Guideway	22-May-17 A	08-Mar-20					
WA #2 - Aerial Guideway	01-Jun-17 A	02-Apr-20					
WA #3 - Ballasted Guideway Block #1	01-May-17 A	17-Mar-20					
WA #4 - Overlake Village Station	14-Jul-16 A	18-Jun-20					
WA #5 - Ballasted Guideway Block #2	15-Aug-17 A	25-Mar-20					
WA #6 - Overlake Transit Center	01-May-17 A	26-Jun-20					
WA #7 - OVS Pedestrian Bridge	01-Oct-18 A	23-Jun-20					
WA #8 - OTC Pedestrian Bridge	24-Jul-20	24-Jul-20					

Schedule Performance Index

This period, early SPI is .76 and late SPI is .77. 164 days was added to the schedule due to City of Redmond delay in their permitting process (150 days) and weather impacts (14 days). Milestone 3 has been split in two; 3A for the systems handoff and 3B for completion of all other work (Substantial Completion). The removal of the OTC Pedestrian Bridge is still being negotiated and is still reflected in the EV (Earned Value).



Link Light Rail East Link Extension



Next Period's Activities

- **Work Area #1:** Finalize duct bank and track slab.
- **Work Area #2:** Ongoing guardrail, fire protection, system duct-bank, and plinth/DF track set and alignment.
- **Work Area #3/4:** WA 3 start track wall and final ballasted track work. WA4 continue canopy structure and kiosk finishes. Move out of existing site offices.
- **Work Area #5:** Continue landscape and ballasted track work to include the crossover.
- **Work Area #6:** Continue masonry/drywall at ancillary rooms. Continue bus loop/island paving, stair installation at garage, painting and device trim-out. MEP continuance of electrical and elevator machine rooms.

Closely Monitored Issues

- PSE easement for establishing permanent power.
- OVS Pedestrian Bridge - Fabrication delays due to welding and fabrication criteria.
- Permanent bus loop transition under the OTC Garage that will require garage Temporary Cert. Occupancy from the City of Redmond.
- Commercial issues for revised OTC Pedestrian Bridge, As-Built Specification, Safety/Security, City of Redmond CDF, Bike Storage and Exothermic welding.
- Clearance requirements between the WSDOT Aggregate Disposal Site access road and aerial guideway.

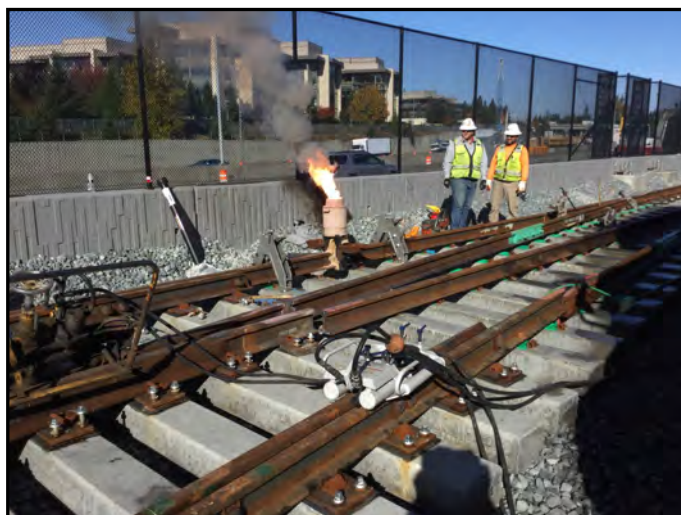
E360 Construction Work Areas



Cost Summary

Present Financial Status	Amount
E360 Contractor— Kiewit-Hoffman	
Original Contract Value	\$225,336,088
Change Order Value	\$4,417,785
Current Contract Value	\$229,753,873
Total Actual Cost (Incurred to Date)	\$171,206,612
Percent Complete	82.6%
Authorized Contingency	\$22,533,609
Contingency Drawdown	\$4,417,785
Contingency Index	4.2

Excludes Betterment



Work Area 5 Ballast Guideway — Thermite Weld Crossover

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Link Light Rail

Downtown Redmond Link Extension

Project Summary

Scope

Limits The Downtown Redmond Link Extension builds new light rail from the Redmond Technology Station to downtown Redmond.

Alignment The extension starts at Redmond Technology Station and travels generally along SR-520 and SR-202 to downtown Redmond.

Stations Two Stations—SE Redmond (at Marymoor Park) and Downtown Redmond

Systems Signals, traction electrification, and communications (SCADA)

Phase Planning

Budget \$1.530 Billion (Baselined October 2018)

Schedule Revenue Service: December 31, 2024



Map of Downtown Redmond Link Extension

Key Project Activities

- Held a groundbreaking ceremony on October 23rd.
- Bus movement testing of SE Redmond garage occurred with all tests successful.
- Continued to work with the Tribes and WSDOT on design options for the unnamed tributary to accommodate fish passage per the WSDOT injunction with the Tribes.
- Public outreach kick-off meeting held with the design-build contractor.
- FTA approved the DRLE Inadvertent Discovery Plan (IDP).
- Microsoft Betterment Agreement for the 40th St. Pedestrian Underpass was approved.
- Army Corps moving forward to review and certify the Keller Farm Mitigation Bank after months of delay.
- Issued Final Purchase Offer to Frito Lay property.
- Contractor conducted safety and cultural resources trainings in preparation for geotechnical work.
- Received 401 certification from Department of Ecology.
- Special Use permit with King County was approved for geotechnical activities in Marymoor Park.
- Tree surveys in Marymoor Park were conducted by the contractor.
- Contractor held a partnering meeting with all Authority Having Jurisdiction (AHJs), Sound Transit and Design Build Project Management (DBPM) team.



Link Light Rail 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. This project has now been baselined. The baseline budget has been incorporated into the tables below. The first table below summarizes costs in accordance with Sound Transit’s budget Work Breakdown Structure (WBS), while the second table in FTA’s Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

In this period, the Redmond Link project incurred approximately \$23.1M of expenses bringing the total expenditure to date from \$75.6M to \$98.7M. Mobilization payment to the Design Build contractor and Right-of-Way acquisition are the main cost drivers during this period. Agency Administrative activities are primarily staffing cost, while expenditures related to third parties are for coordination and fees.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$77.0	\$77.0	\$7.2	\$6.9	\$77.0	\$0.0
Preliminary Engineering	\$23.0	\$23.0	\$19.0	\$18.2	\$23.0	\$0.0
Final Design	\$4.5	\$4.5	\$0.4	\$0.2	\$4.5	\$0.0
Construction Services	\$58.0	\$58.0	\$1.8	\$1.8	\$58.0	\$0.0
Third Party Agreements	\$17.0	\$17.0	\$6.4	\$1.5	\$17.0	\$0.0
Construction	\$1,151.5	\$1,151.5	\$724.6	\$2.6	\$1,151.5	\$0.0
ROW	\$199.0	\$199.0	\$48.6	\$44.3	\$199.0	\$0.0
Total	\$1,530.0	\$1,530.0	\$858.4	\$98.7	\$1,530.0	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$332.4	\$332.4	\$229.5	\$10.2	\$332.4	\$0.0
20 Stations	\$261.9	\$261.9	\$182.5	\$4.3	\$261.9	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$287.1	\$287.1	\$179.8	\$4.2	\$287.1	\$0.0
50 Systems	\$108.6	\$108.6	\$65.2	\$1.6	\$108.6	\$0.0
Construction Subtotal (10 - 50)	\$990.0	\$990.0	\$657.0	\$20.3	\$990.0	\$0.0
60 Row, Land	\$168.5	\$168.5	\$49.5	\$45.6	\$168.5	\$0.0
70 Vehicles (Non-Revenue)	\$4.1	\$4.1	\$0.0	\$0.0	\$4.1	\$0.0
80 Professional Services	\$289.3	\$289.3	\$151.9	\$32.8	\$289.3	\$0.0
90 Unallocated Contingency	\$78.2	\$78.2	\$0.0	\$0.0	\$78.2	\$0.0
Total (10 - 90)	\$1,530.0	\$1,530.0	\$858.4	\$98.7	\$1,530.0	\$0.0

Link Light Rail Downtown Redmond Link Extension



Risk Management

The 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 to continuously monitor project status and associated risks.

The project completed its quantitative risk assessment risk workshop as part of the process project baseline in Q4 2018. The quantitative risk assessment report is completed and finalized with good probability that supported the DRLE baseline cost and schedule assumptions. The externality conditions remains the same this period and may have reduced in some instances, therefore, the project’s risk profile remains unchanged. The qualitative risk assessment risk meeting for Q3 was performed in August 2019. The following continues to be the current top project risk areas:

- Property acquisition - market conditions; protracted durations of attaining control of properties; evolving design impacts property needs; however, the current cost risk seems to be subsiding due to appraisals and offers aligning to the baseline budget assumptions.
- Permitting and third party requirements - construction adjacent to SR520; flood prone areas by Sammamish River and Bear Creek; archaeological discovery; betterment requests increases complexity of projects; construction impacts to traffic; storm water discharge requirements by King County Parks; protracted negotiation with third parties.
- Construction market conditions - inflationary pressure due to competitiveness for resources and labor; higher materials pricing due to demand as well as regulations (tariffs and taxes); However, since the DB contract bid and awarded for less than baseline estimate, a very significant cost pressure to this project has been averted.
- Agency staffing capacity - developing and mobilizing resources and coordinating start up activities across multiple extensions within a short time frame.

Project Schedule

The project schedule is presented below. NTP was issued to the DB contractor on September 9th. Property acquisition and environmental permitting are ongoing. The contractor’s baseline schedule is expected in early November, after which detailed progress will be available. Revenue Service Date is forecasted in December 2024.

Activity Name	Start	Finish	Year				
			2020	2021	2022	2023	2024
Downtown Redmond Link Extension - Right of Way	27-Dec-17 A	18-Feb-21	█	█	█	█	█
Downtown Redmond Link Extension - Permits & Third Party Agreements	01-Jun-18 A	15-Jan-20	█	█	█	█	█
Downtown Redmond Link Extension - Construction	01-Jun-18 A	31-Dec-24	█	█	█	█	█
Downtown Redmond Link Extension - Design-Build Procurement	01-Jun-18 A	08-Sep-19 A	█	█	█	█	█
Downtown Redmond Link Extension - Design-Build Contract	01-Jun-19 A	31-May-24	█	█	█	█	█
Downtown Redmond Link Extension - Rail Activation/Closeout	15-Dec-23	31-Dec-24				█	█
Systems Integration & Testing	15-Dec-23	01-May-24				█	█
Safety and Security Certification	15-Dec-23	08-Mar-24				█	█
Pre-Revenue Service	01-Jun-24	29-Aug-24					█
Pre-Revenue Operations	01-Jun-24	29-Aug-24					█
Revenue Service/Project Float	30-Aug-24	31-Dec-24					█
Project Float	30-Aug-24	31-Dec-24					█
Revenue Service		31-Dec-24					█

Right-of-Way

The Right-of-Way effort for this project 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.

Downtown Redmond Link Extension Property Acquisition Status					
ACQUISITION				RELOCATION	
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
93	93	70	8	1552	759
* All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.					

Community Outreach

- Continued meetings with potentially impacted property owners in southeast and downtown Redmond to provide updated project information and real estate process information and timing.
- Continued engagement with the community on a variety of concerns including schedule, property acquisition, station access and project briefing to individual neighborhood associations in Redmond.
- Hosted groundbreaking ceremony on October 23rd.
- Held an outreach kick-off meeting for the Design-Builder and all who will be working on DRLE to go over outreach goals, objectives and tactics and strategize on how best to work together

Sound Transit Board Actions

Board Action	Description	Date
M2019-103	Authorizes the chief executive officer to execute a Betterment Agreement (on a pedestrian underpass beneath NE 40th Street to provide a grade separated shared use pedestrian and bicycle path connecting the Redmond Technology Station) with Microsoft Corporation for the Downtown Redmond Link Extension in the amount of \$2,935,800.	10/10/2019

Link Light Rail West Seattle and Ballard Link Extensions

Project Summary

Scope

Limits The West Seattle extension includes 4.7 miles of light rail from downtown Seattle to West Seattle’s Junction neighborhood. The Ballard extension includes 7.1 miles of light rail from downtown Seattle to Ballard’s Market Street area.

Alignment The West Seattle extension route is assumed to run primarily on elevated guideway with a new rail-only bridge over the Duwamish River. The Ballard extension route is assumed to run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay.

Stations Five stations planned for West Seattle Segment. Nine stations planned for the Ballard Segment.

Phase Planning

Budget \$286M through completion of Preliminary Engineering

Schedule Revenue Service: 2030 (West Seattle), 2035 (Ballard)



Map of Project Alignment

Key Project Activities

- Completed public engagement for the initial assessment of potential new alternatives identified during the EIS scoping period, and presented results to System Expansion Committee and Board of Directors. Received direction from the Board to study two additional alternatives in the Draft EIS based on findings from initial assessment, public and agency comments and input from the FTA.
- Continued defining alignment and station footprints for evaluation in the Draft EIS.
- Initiated upland geotechnical borings in support of WSBLE design. Continued collecting data and conducting fieldwork for environmental and engineering evaluation.
- Continued engagement with partner and regulatory agencies, tribes, waterway users, stakeholder groups and property owners regarding initial assessment, environmental process and next steps.
- Continued coordinating with City of Seattle to develop timeline for external engagement, environmental review, station planning, engineering and permit streamlining working groups.
- Reached general staff agreement with King Co. Metro and SDOT on a set of near-term speed and reliability improvements. Initiated discussion of agreement structure and roles and responsibilities moving forward with partner agencies.



Link Light Rail West Seattle and Ballard Link Extensions

Project Cost Summary

The West Seattle and Ballard Link Extensions are voter-approved projects under the ST3 Plan. The current Authorized Project Allocation (budget) for the project that has been approved by the Sound Transit Board allows staff to conduct 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.

Out of the total Authorized Project Allocation, the project is authorized and planned to incur approximately \$31M in 2019 for completing alternatives development and evaluation; EIS Scoping; Draft EIS; conceptual engineering work; project administration and stakeholder engagement.

The 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

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$63.1	\$9.2	\$8.6	\$63.1	\$0.0
Preliminary Engineering	\$205.4	\$82.4	\$37.0	\$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	\$1.4	\$0.3	\$11.4	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$2.0	\$0.5	\$6.0	\$0.0
Total	\$285.9	\$95.0	\$46.3	\$285.9	\$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	\$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	\$2.0	\$0.5	\$5.0	\$0.0
80 Professional Services	\$263.4	\$93.0	\$45.9	\$263.4	\$0.0
90 Unallocated Contingency	\$17.5	\$0.0	\$0.0	\$17.5	\$0.0
Total (10 - 90)	\$285.9	\$95.0	\$46.3	\$285.9	\$0.0

Link Light Rail West Seattle and Ballard Link Extensions



Risk Management

Sound Transit has a vigorous risk management program and is committed to identifying, assessing, and monitoring risks and implementing risk reduction/mitigation actions. Risk Assessment for the West Seattle and Ballard Link Extensions Project was conducted as part of the ST3 Planning process.

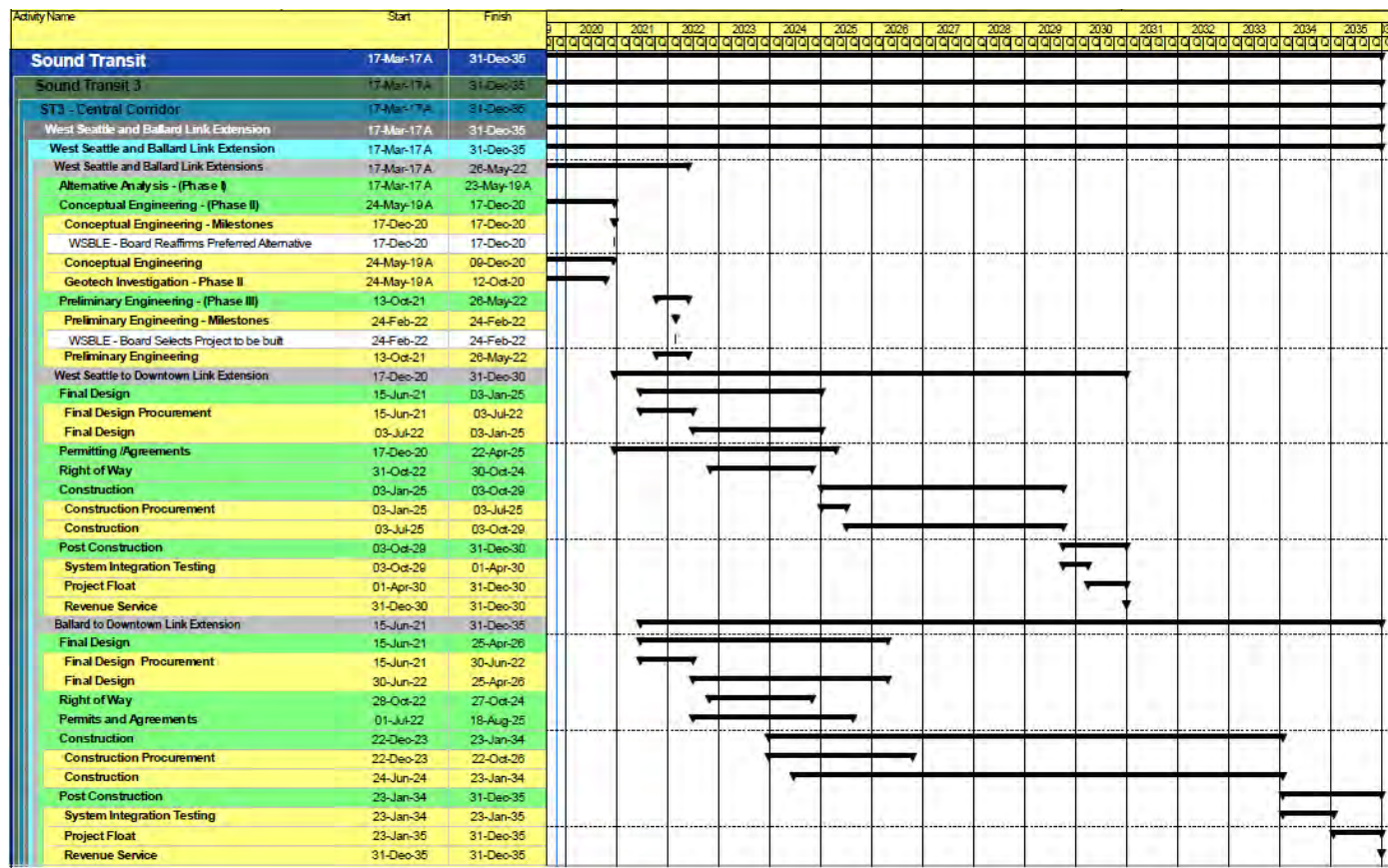
Project issues and risks identified at this stage include:

- Reaching stakeholder consensus on a preferred alternative, including Third Party Funding;
- Complexity of alignments in constrained environment with challenging topography and waterway crossings;
- Complexity associated with tunneling through a mature urban environment;
- Potential construction effects in a constrained environment;
- Potential effect on Central Link operations during construction;
- ROW and property impacts.

Project Schedule

The preliminary project schedule can be found below. ST Board identified preliminary preferred alternatives (DEIS) on May 23, 2019. FTA issuance of ROD and Final Design are expected to begin in 2022.

Revenue Service between West Seattle and Downtown Seattle is targeted for 2030, and revenue service between Ballard and Downtown Seattle is targeted for 2035.



Community Outreach

- Prepared for multiple neighborhood forums to be held in November and December 2019 for the communities to learn more about light rail route and station location options being studied in the Draft EIS. The specific dates of those forums are:
 - Downtown - November 20, 2019
 - West Seattle - November 21, 2019
 - Chinatown / International District - December 3, 2019
 - Interbay / Ballard - December 5, 2019
 - Delridge - December 7, 2019

Sound Transit Board Actions

Board Action	Description	Date
M2019-104	The Sound Transit Board, based on the Board's review of the findings from initial assessment, public and agency comments, input from FTA, and other information developed to date, directed alternatives 'Yancy/Andover Elevated' and 'SODO Partial Elevated' to be studied in the WSBLE Draft EIS.	10/24/2019

Link Light Rail Federal Way Link Extension

Project Summary

Scope

Limits	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.
Alignment	The extension generally parallels SR 99 and I-5 freeway.
Stations	Stations at Kent/Des Moines, South 272nd Star Lake Park –and-Ride and the Federal Way Transit Center
Systems	Signals, traction power, and communications (SCADA)
Phase	Proceed to Final Design/Construction
Budget	\$2.451 Billion (Baseline Sep 2018)
Schedule	Revenue Service: December 2024



Map of Federal Way Link Extension.

Key Project Activities

- Full Funding Grant Agreement (FFGA) application under review by FTA.
- Design Build (DB) contract (F200) meeting monthly with AHJs to facilitate coordination issues.
- DB Contractor co-located field office is active and key Sound Transit (ST) project staff and DBPM staff have moved in.
- ST Board approved City of Federal Way services agreement for staff time and permitting .
- Continue preparing task order scope of work for advanced utility relocation with Century Link.
- Puget Sound Energy (PSE) master and first task order agreement is pending execution for utility relocation early work; posing a potential schedule risk.
- Discussions continue with Seattle Public Utility (SPU), WSDOT, Ecology, EPA and FTA for Midway Landfill agreement; goal to reach agreement resolution by 4th QTR 2019.
- Discussions continue with King County Metro for temporary lease parking during construction at Starlake Park & Ride
- Progress continues with settling Right-of-Way acquisition and relocations this period.



Link Light Rail Federal Way Link Extension

Project Cost Summary

The 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.

This period approximately \$50.4M was incurred for October 2019, of which \$28.7M incurred was for Right-Of-Way; \$1.5M incurred for Construction Services; \$19.2M for Construction phase comprised mainly of \$22.3 for Design Build construction contract and \$0.2M for Construction Permits. Remaining major expenditures of \$1M were for Preliminary Engineering, Third Party and Administration. Overall the project Estimate at Completion continues to reflect \$2.45B.

NOTE: Pending future board approval, a Project Reserve of \$459.3M shall be added representing additional contingency FTA recommended the project carry following their independent risk assessment, is anticipated. FFGA application reflects this amount.

Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$96.5	\$19.5	\$19.5	\$96.5	\$0.0
Preliminary Engineering	\$46.5	\$45.5	\$44.4	\$46.5	\$0.0
Final Design	\$3.1	\$1.0	\$0.9	\$3.1	\$0.0
Construction Services	\$107.0	\$15.6	\$7.4	\$107.0	\$0.0
3rd Party Agreements	\$27.7	\$21.0	\$4.2	\$27.7	\$0.0
Construction	\$1,831.9	\$1,278.9	\$107.8	\$1,831.9	\$0.0
ROW	\$338.8	\$115.7	\$106.6	\$338.8	\$0.0
Total	\$2,451.5	\$1,497.0	\$290.7	\$2,451.5	\$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	\$517.7	\$392.7	\$21.2	\$517.7	\$0.0
20 Stations	\$316.1	\$244.5	\$13.1	\$316.1	\$0.0
30 Support Facilities	\$5.3	\$11.5	\$0.6	\$5.3	\$0.0
40 Sitework & Special Conditions	\$557.7	\$407.2	\$21.4	\$550.8	\$6.9
50 Systems	\$153.0	\$116.5	\$6.2	\$153.0	\$0.0
Construction Subtotal (10 - 50)	\$1,549.9	\$1,172.4	\$62.5	\$1,543.0	\$6.9
60 Row, Land	\$338.8	\$115.7	\$106.6	\$338.8	\$0.0
70 Vehicles	\$1.8	\$0.0	\$0.0	\$1.8	\$0.0
80 Professional Services	\$383.0	\$209.0	\$121.6	\$391.3	(\$8.3)
90 Unallocated Contingency	\$178.1	\$0.0	\$0.0	\$176.7	\$1.4
Total (10 - 90)	\$2,451.5	\$1,497.0	\$290.7	\$2,451.5	\$0.0

Link Light Rail Federal Way Link Extension



Risk Management

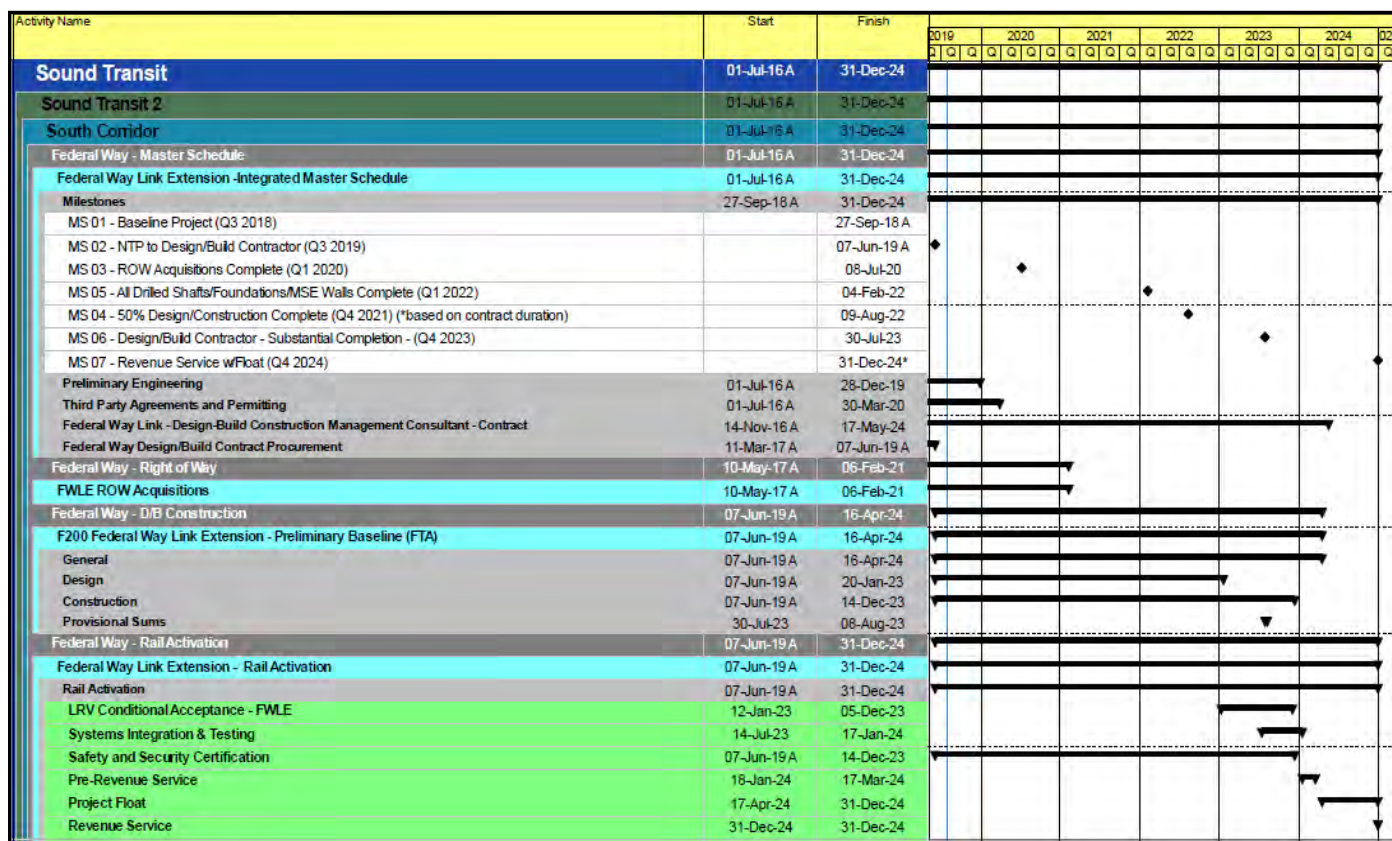
The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks.

The most recent Quarterly Risk Register review update was held Sep 2019. Below are the top project risks:

- Obtaining easements for PSE advanced utility relocation could impact DB Contractor schedule.
- Design review/approvals may not be completed in timely manner by jurisdictional partners, thus delaying project progress.
- Midway Landfill crossing, may not reach timely agreement with WSDOT & SPU.
- Known third party utility relocations may not occur as scheduled, delaying DB construction activities.
- FFGA review and approvals could cause schedule delays.
- ST processes and procedures are not optimized for Design Build mega-contract.

Project Schedule

The project schedule is presented below. Right-of-Way acquisitions and relocations continue and additional detail has been added to the master schedule to monitor any impacts to the project. FFGA application is under review by FTA and received notice that we have met readiness requirements in September. LNTTP was issued June 7th. The baseline schedule submittal was returned "revise and resubmit." A revised baseline is expected in December. Construction NTP is expected Q1 2020. Revenue Service is on schedule for 4th QTR 2024. No updates to the master schedule have been made this month as we await the baseline schedule re-submittal.



Contingency Management

The Federal Way Link Extension project budget was baselined in September 2018 with a total contingency of \$549.9M. The current contingency balance is \$412.7M.

Design Allowance (DA) has been used and no longer reported.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. During this period the AC was decreased overall by approximately \$1.5M due to a new third party agreements for City of Federal Way that includes construction permitting.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. During this period no drawdowns from UAC occurred.

Contingency Status (Monthly)

Type	Baseline		Current Status	
	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$139.6	5.7%	\$0.0	0.0%
Allocated Contingency	\$232.2	9.5%	\$236.0	10.7%
Unallocated Contingency	\$178.1	7.3%	\$176.7	8.0%
Total:	\$549.9	22.4%	\$412.7	18.7%

Contingency by Type

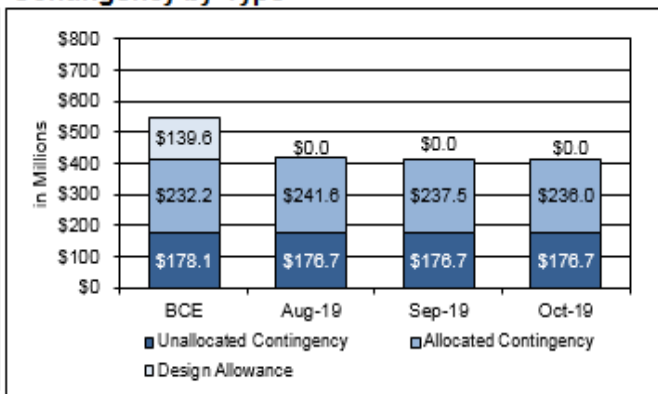
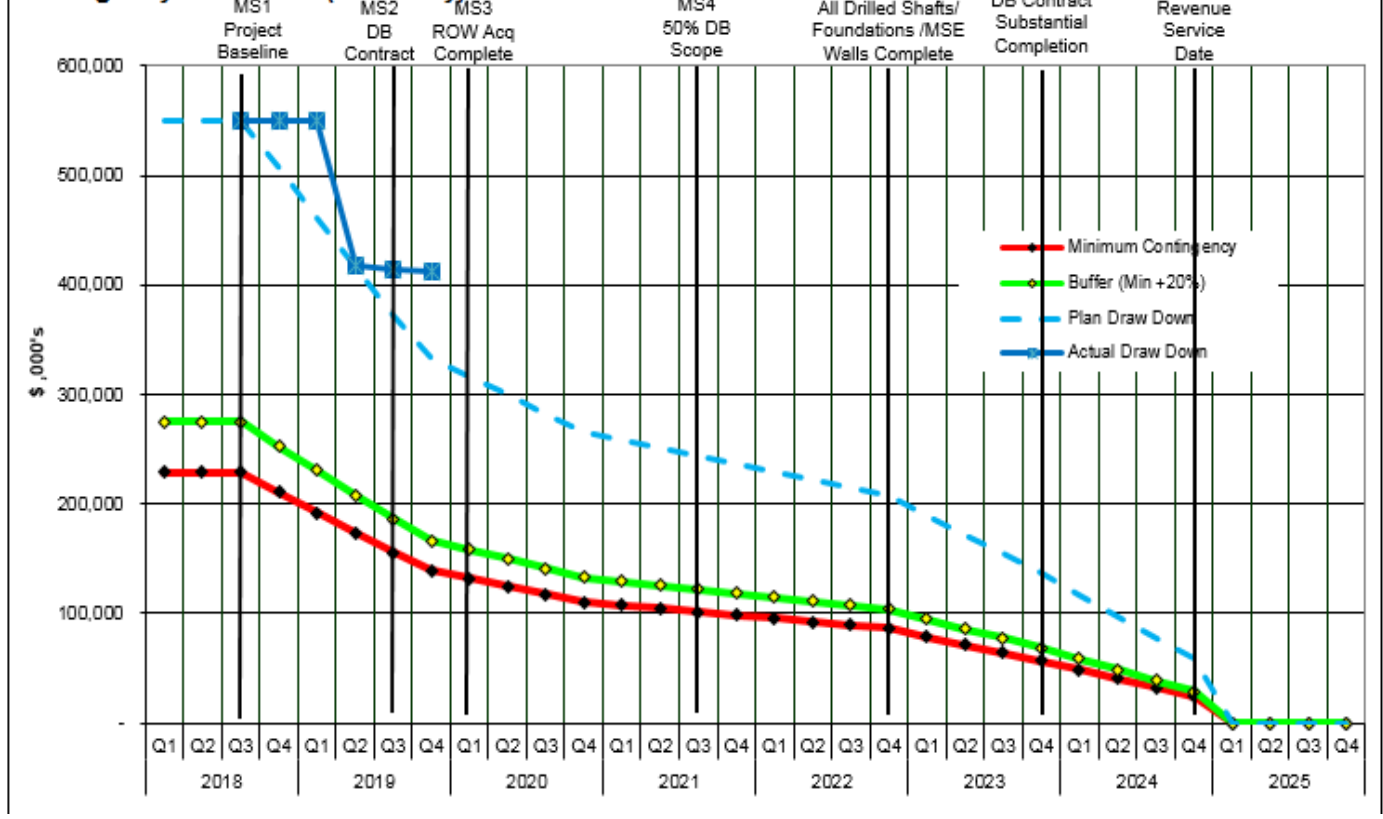


Table figures are shown in millions.

Contingency Drawdown (Quarterly)



Right-of-Way

The Right-of-Way effort for this project 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.

Federal Way Link Extension Property Acquisition Status					
ACQUISITION				RELOCATION ³	
Total Acquisitions ¹	Board Approved ²	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
256	353	213	97	430	304

** All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.*

1. Total Acquisitions is defined as only parcels (recognizing only land not owners).
2. Board Approved based on parcels and properties (multi-unit acquisitions)
3. Relocation numbers are the number of affected individuals.

Community Outreach

- Communication with property owners regarding FWLE route, profile, station areas, acquisition and relocation is ongoing.
- Staffed FWLE informational tables at:
 - 10/5/19 S King County Health and Safety Fair
 - 10/10/19 Federal Way Community Center



Community Outreach at the South King County Health and Safety Fair on 10/10/19

Sound Transit Board Actions

Board Action	Description	Date
M2019-102	Increase Task Order 2 under City Services Agreement with the City of Federal Way	10/10/19
R2019-25	Property Acquisition for Federal Way Link Extension	10/24/19

Phase 3 Preliminary Engineering (PE)

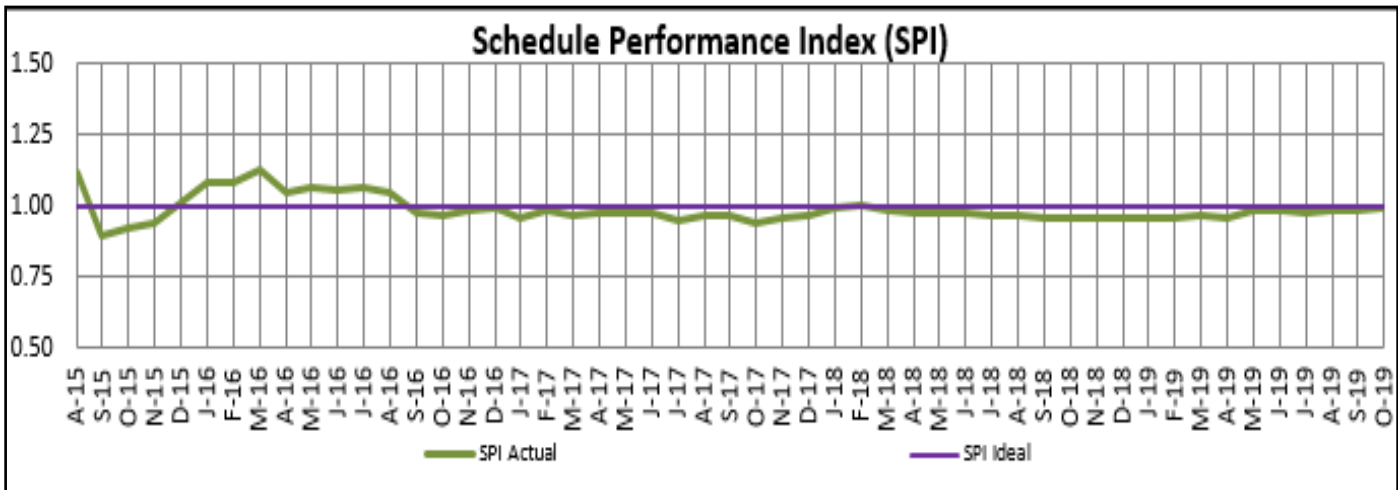
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary 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.

Current Progress

- Coordination efforts with the Design Build Project Management Consultant (DBPM) continued.
- Continued environmental work including the NEPA/SEPA “additional Information for Project Refinements” and permitting work.
- Right-of-Way (ROW) support for property acquisition continued including ROW drawings and parcel maps continued.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) is 0.99 through October 2019, indicating the overall amount of work accomplished is as planned. The consultant (HDR) is fully engaged on coordination efforts with the DBPM consultant, Environmental works including NEPA/SEPA, and in property acquisition support with parcel maps.

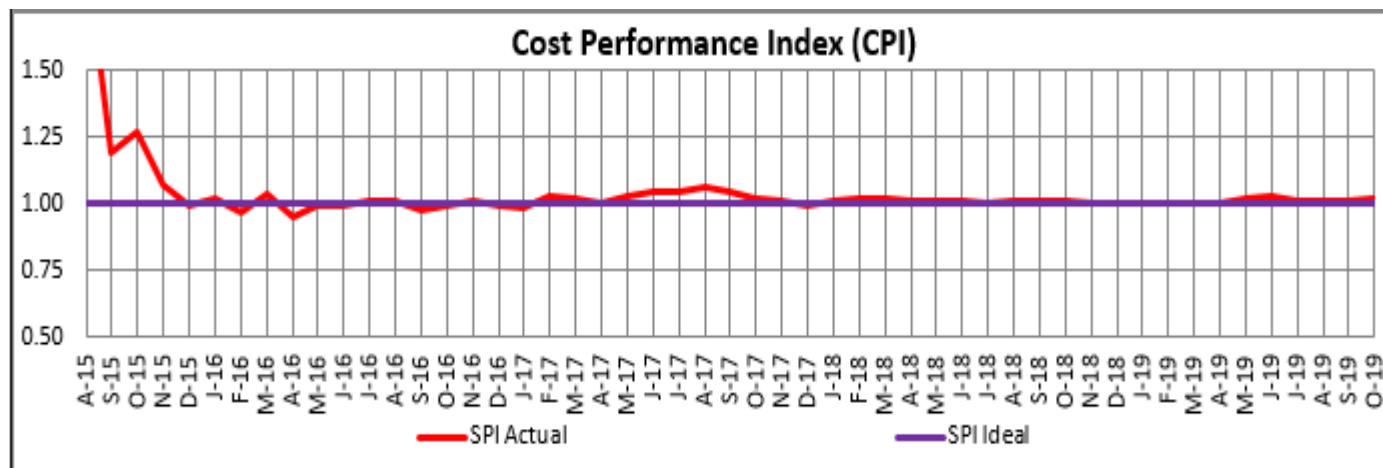


Link Light Rail Federal Way Link Extension



Cost Performance Index

Phase 3 expenditures through October 2019 totaled \$36.2 M, approximately 97.3% of the amended total contract. The Phase 3 percent complete is reported at 99.0%, with an earned value of \$36.6M. The cumulative Cost Performance Index (CPI) is 1.02 showing costs are on track with work accomplished. The Consultant is engaged in coordinating efforts with the DBPM, environmental works, and ROW acquisition support and parcel maps.



Cost Summary

Contract (Phase 3 portion)	Cumulative To-date
Amount Invoiced	\$36.2M
% Spent	97.3%
Earned Value	\$36.8M
% Complete	99%
SPI	0.99
CPI	1.02

F200 Design Build Contract

Current Progress

- Continue Task Force meetings, and Design work with 30% and 60% packages being submitted as they're completed. Identify requirements and seek needed property rights for PSE relocation, and finalize PSE Task Order utility relocation. Century Link first relocation Task Order development is underway. Geotechnical site investigation work on hold until NPDS Permit is obtained by ST.

Schedule Summary

LNTF was issued June 7th. A preliminary baseline schedule was submitted by the Design-Build Contractor. The initial baseline schedule submittal was rejected and a revised baseline is expected in October. Below is a summary schedule from the contractor's preliminary baseline schedule.

Activity Name	Start	Finish	2019		2020			2021			2022			2023			2024	
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Sound Transit	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
Sound Transit 2	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
South Corridor	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
Federal Way - DB Construction	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
F200 Federal Way Link Extension - Preliminary Baseline (FTA)	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
Contract Milestones	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
Contract Duration 1,778 (Maximum Duration)	07-Jun-19 A	16-Apr-24	[Gantt bar spanning from 07-Jun-19 A to 16-Apr-24]															
Limited Notice to Proceed	07-Jun-19 A		[Gantt bar spanning from 07-Jun-19 A to 07-Jun-19 A]															
Notice to Proceed	28-Feb-20*		[Gantt bar spanning from 28-Feb-20* to 28-Feb-20*]															
Anticipated Weather Days - MS 1	31-Dec-21	18-Feb-22	[Gantt bar spanning from 31-Dec-21 to 18-Feb-22]															
MS 1 - Civil Work in WSDOT ROW From S 208th Street to I-5 (Sta. L 2260+00) (VA-2) (01-Mar-22)		18-Feb-22*	[Gantt bar spanning from 01-Mar-22 to 18-Feb-22*]															
Anticipated Weather Days - MS 2	12-Aug-22	05-Oct-22	[Gantt bar spanning from 12-Aug-22 to 05-Oct-22]															
MS 2 - Civil Work in WSDOT ROW from Start of FWLE to S 208th Street (VA-1) (01-Nov-22)		05-Oct-22*	[Gantt bar spanning from 01-Nov-22 to 05-Oct-22*]															
Anticipated Weather Days - MS 3	27-Apr-23	04-May-23	[Gantt bar spanning from 27-Apr-23 to 04-May-23]															
MS 3 - LRV Early Storage (2,000 feet of Track) (01-Jun-23)		04-May-23*	[Gantt bar spanning from 01-Jun-23 to 04-May-23*]															
Anticipated Weather Days - MS 4	09-May-23	16-May-23	[Gantt bar spanning from 09-May-23 to 16-May-23]															
MS 4 - Work in WSDOT ROW from I-5 (Sta. L 2260+00) to S 272nd Street (VA-3) (01-Nov-23)		16-May-23*	[Gantt bar spanning from 01-Nov-23 to 16-May-23*]															
Substantial Completion		29-Jul-23	[Gantt bar spanning from 29-Jul-23 to 29-Jul-23]															
Anticipated Weather Days - MS 5	15-Dec-23	17-Jan-24	[Gantt bar spanning from 15-Dec-23 to 17-Jan-24]															
Testing and Commissioning NLT 12-Feb-24		17-Jan-24*	[Gantt bar spanning from 12-Feb-24 to 17-Jan-24*]															
60-Day Pre-Revenue Operations	18-Jan-24	17-Mar-24	[Gantt bar spanning from 18-Jan-24 to 17-Mar-24]															
30-Day Sound Transit-Controlled Float	18-Mar-24	16-Apr-24	[Gantt bar spanning from 18-Mar-24 to 16-Apr-24]															
MS 5 - Acceptance of All Work (19-Apr-24)		16-Apr-24*	[Gantt bar spanning from 19-Apr-24 to 16-Apr-24*]															
General	07-Jun-19 A	31-Mar-24	[Gantt bar spanning from 07-Jun-19 A to 31-Mar-24]															
Design	07-Jun-19 A	20-Jan-23	[Gantt bar spanning from 07-Jun-19 A to 20-Jan-23]															
Design Milestones	07-Jun-19 A	20-Jan-23	[Gantt bar spanning from 07-Jun-19 A to 20-Jan-23]															
Corridor Wide	07-Jun-19 A	19-Apr-21	[Gantt bar spanning from 07-Jun-19 A to 19-Apr-21]															
Design Packages - Kent Des Moines Segment 1	07-Jun-19 A	27-Oct-20	[Gantt bar spanning from 07-Jun-19 A to 27-Oct-20]															
Design Packages - Star Lake Segment 2	07-Jun-19 A	17-Feb-21	[Gantt bar spanning from 07-Jun-19 A to 17-Feb-21]															
Design Packages - Federal Way Transit Segment 3	07-Jun-19 A	20-Apr-21	[Gantt bar spanning from 07-Jun-19 A to 20-Apr-21]															
Construction	07-Jun-19 A	14-Dec-23	[Gantt bar spanning from 07-Jun-19 A to 14-Dec-23]															
Segment 1 Construction [STA 990+10 to 1112+99]	07-Jun-19 A	14-Dec-23	[Gantt bar spanning from 07-Jun-19 A to 14-Dec-23]															
Segment 2 Construction [STA 1112+99 to 1227+29]	07-Jun-19 A	14-Dec-23	[Gantt bar spanning from 07-Jun-19 A to 14-Dec-23]															
Segment 3 Construction [STA 1227+29 to 1401+87]	07-Jun-19 A	14-Dec-23	[Gantt bar spanning from 07-Jun-19 A to 14-Dec-23]															

Schedule Performance Index

The SPI will be included in the report once cost loaded baseline schedule is fully approved.

Next Period's Activities

- Continue task force meetings & advance toward 60% design.
- Continue other early critical submittal activities.
- Continue geotechnical borings along alignment.
- Continue early building demolition.
- Needed property rights for PSE relocation.
- Begin 30-inch Highline WD water line relocation.

Closely Monitored Issues

- None to report.

Cost Summary

Present Financial Status	Amount
Contractor-	
Original Contract Value	\$1,285,200,000
Change Order Value	\$500,000
Current Contract Value	\$1,285,700,000
Total Actual Cost (Incurred to Date)	\$102,723,731
Percent Complete	8%
Authorized Contingency	\$128,520,000
Contingency Drawdown	(\$500,000)
Contingency Index	20

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Link Light Rail Hilltop Tacoma Link Extension



Project Summary

Scope

Limits City of Tacoma

Alignment The Hilltop 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 at-grade 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.

Phase Construction

Budget \$217.3 Million (Baselined September 2017)

Schedule Revenue Service: May 2022



Map of Hilltop Tacoma Link Extension.

Key Project Activities

Final Design: Design consultant continued design services during construction scope including review of construction contractor submittals and responded to requests for information.

Construction

- **Heading 1:** Continued inbound track slab installation and OCS foundation installations and performed re-work on non-conforming track slab in select locations on Stadium Way. Prepared for start of outbound track slab installation activities.
- **Heading 2:** Performed storm relocations at along Division between J and K St. Installed OCS pole foundations and mobilized for rail welding operations in Stadium District.
- **Heading 3:** Continued storm drainage and waterline work and installation of OCS pole foundations along MLK at various locations. Continued excavation of receiving pit at Jackson Hall in the vicinity of Tacoma General. Installed traffic signal conduit at MLK and 18th.
- **OMF:** Began applying high performance coating to structural steel. Completed slab pours and began framing at second floor.

Right-of-Way: Acquisition of all required parcels and temporary construction easements is complete.

Vehicles: Held bi-weekly progress meeting with representatives from Brookville Equipment Corporation on LRVs. Sound Transit staff and vehicle consultant reviewed vehicle subsystem design submittals. Team is working toward conditional acceptance of 70% design submittals in advance of preliminary design review in late November.

Project Cost Summary

In September 2017, Sound Transit Board adopted the Hilltop Tacoma Link Extension (HTLE) baseline schedule and budget by increasing the authorized project allocation from \$34.6M to \$217.3M. The 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. To date, most of the expenditures have been from Administration, Design, 3rd Party, and ROW.

The T100 construction contract was executed in August 2018. The team is planning to go to the ST Board in December 2019 to add contingency to this contract.

In the October 2019 period approximately -\$0.3M was incurred, as a result of a over accruals in September. Most expenditures are occurring in the Construction Phase related to the T100 construction contract. ST continues to anticipate majority of expenditures in the construction phase.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.9	\$16.9	\$10.2	\$10.1	\$16.9	(\$0.0)
Preliminary Engineering	\$5.6	\$5.6	\$5.6	\$5.6	\$5.6	\$0.0
Final Design	\$10.8	\$12.8	\$12.5	\$10.7	\$12.8	\$0.0
Construction Services	\$9.9	\$10.3	\$8.9	\$3.8	\$10.3	\$0.0
3rd Party Agreements	\$1.5	\$1.5	\$1.3	\$1.0	\$1.5	(\$0.0)
Construction	\$127.2	\$130.1	\$120.1	\$58.9	\$130.1	\$0.0
Vehicles	\$35.4	\$32.8	\$30.3	\$0.8	\$32.8	\$0.0
ROW	\$3.6	\$2.3	\$2.2	\$1.9	\$2.3	\$0.0
Contingency	\$6.6	\$5.1	\$0.0	\$0.0	\$5.1	\$0.0
Total	\$217.3	\$217.3	\$191.0	\$92.9	\$217.3	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$21.9	\$24.9	\$23.0	\$11.3	\$24.9	\$0.0
20 Stations	\$1.8	\$2.8	\$2.6	\$1.3	\$2.8	(\$0.0)
30 Support Facilities	\$26.6	\$33.1	\$30.5	\$15.0	\$33.1	(\$0.0)
40 Sitework & Special Conditions	\$40.0	\$41.6	\$38.4	\$18.8	\$41.6	(\$0.0)
50 Systems	\$25.0	\$27.8	\$25.6	\$12.6	\$27.8	(\$0.0)
Construction Subtotal (10 - 50)	\$115.4	\$130.12	\$120.1	\$58.9	\$130.1	\$0.0
60 Row, Land	\$3.4	\$2.3	\$2.2	\$1.9	\$2.3	(\$0.0)
70 Vehicles (non-revenue)	\$34.1	\$32.8	\$30.3	\$0.8	\$32.8	(\$0.0)
80 Professional Services	\$48.4	\$47.1	\$38.5	\$31.2	\$47.1	\$0.0
90 Unallocated Contingency	\$16.1	\$5.1	\$0.0	\$0.0	\$5.1	\$0.0
Total (10 - 90)	\$217.3	\$217.3	\$191.0	\$92.9	\$217.3	\$0.0

Risk Management

The Hilltop Tacoma 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 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 and we conducted a Quantitative Risk Assessment in May 2019. A Recovery Action Workshop was conducted on October 24-25. An update to the risk model following review of secondary risk mitigations was done and a updated estimate at completion is in process. The team is implementing the mitigations for the top risks and we are tracking the process on a bi-weekly basis. Per the October 2019 Register Update the current top project risks include:

- Lack of approved schedule is creating a series of cascading impacts to the project.
- Roadway improvements and modifications along MLK are greater than anticipated.
- Unidentified utilities under the proposed alignment lead to increased cost and schedule delays for mitigation during construction.
- Redesign of Division St./J/K intersection work leads to schedule delay and higher costs.
- Gasline work at Division and 3rd is delayed by PSE.
- Contractor assumed CoT discretion to relax code requirements regarding material staging in public ROW.
- Work zone constraints due to traffic control considerations and impacts to stakeholder require additional contractor resources due to resequencing activities and materials and equipment handling.



OMF– Ongoing painting

Contingency Management

Hilltop Tacoma Link Extension was baselined on September 2017 with a total contingency of \$33.8M. Since baselining, there were draw downs on AC and UAC to address the Procurement of the Tacoma LRV and T100 Construction contracts, Design Services During Construction contract, and various Change Orders.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA is at \$0M, as a result of completion of Final Design.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period the Total AC was reduced based on for executing T100 Change Orders and more are in process. The balance is \$5.2M.

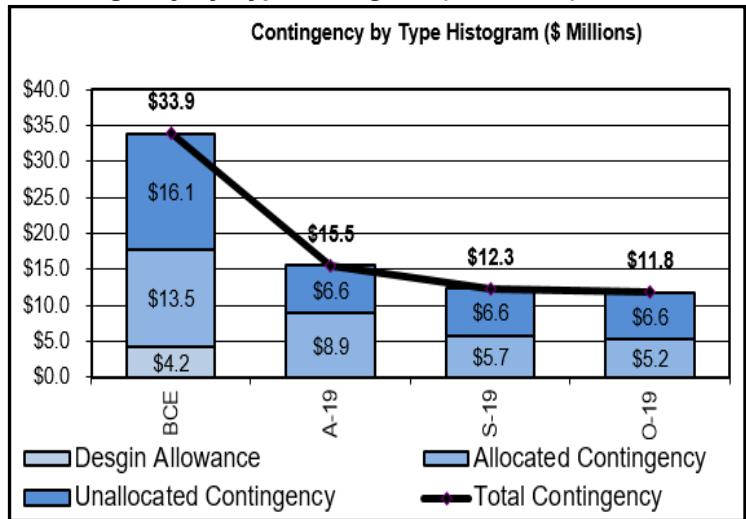
Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC balance did not change this period. The a net balance amount is \$6.6M.

Contingency Status (Monthly)

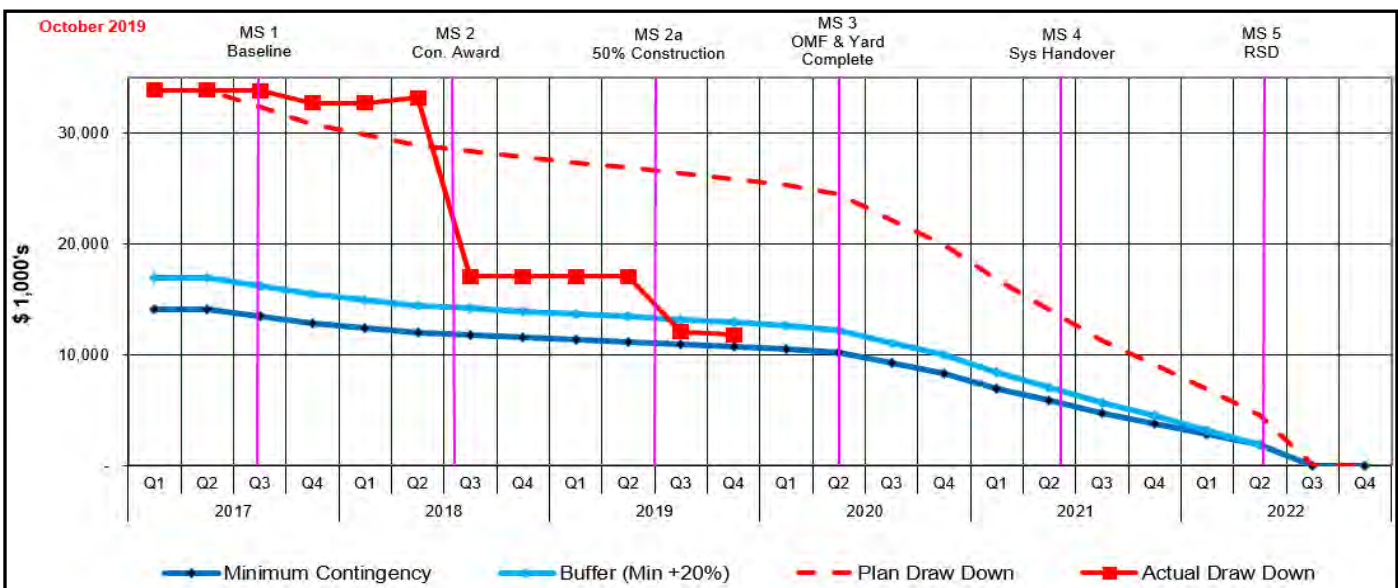
Type	Baseline		Current	
	Amount	% of Total	Amount	% of Work
Design Allowance	\$4.2	2.2%	\$0.0	0.0%
Allocated Contingency	\$13.5	6.8%	\$5.2	4.2%
Unallocated Contingency	\$16.1	8.2%	\$6.6	5.3%
Total	\$33.8	17.2%	\$11.8	9.5%

Table figures are shown in millions.

Contingency by Type Histogram (\$ Millions)



Contingency Drawdown (Quarterly)



Link Light Rail Hilltop Tacoma Link Extension

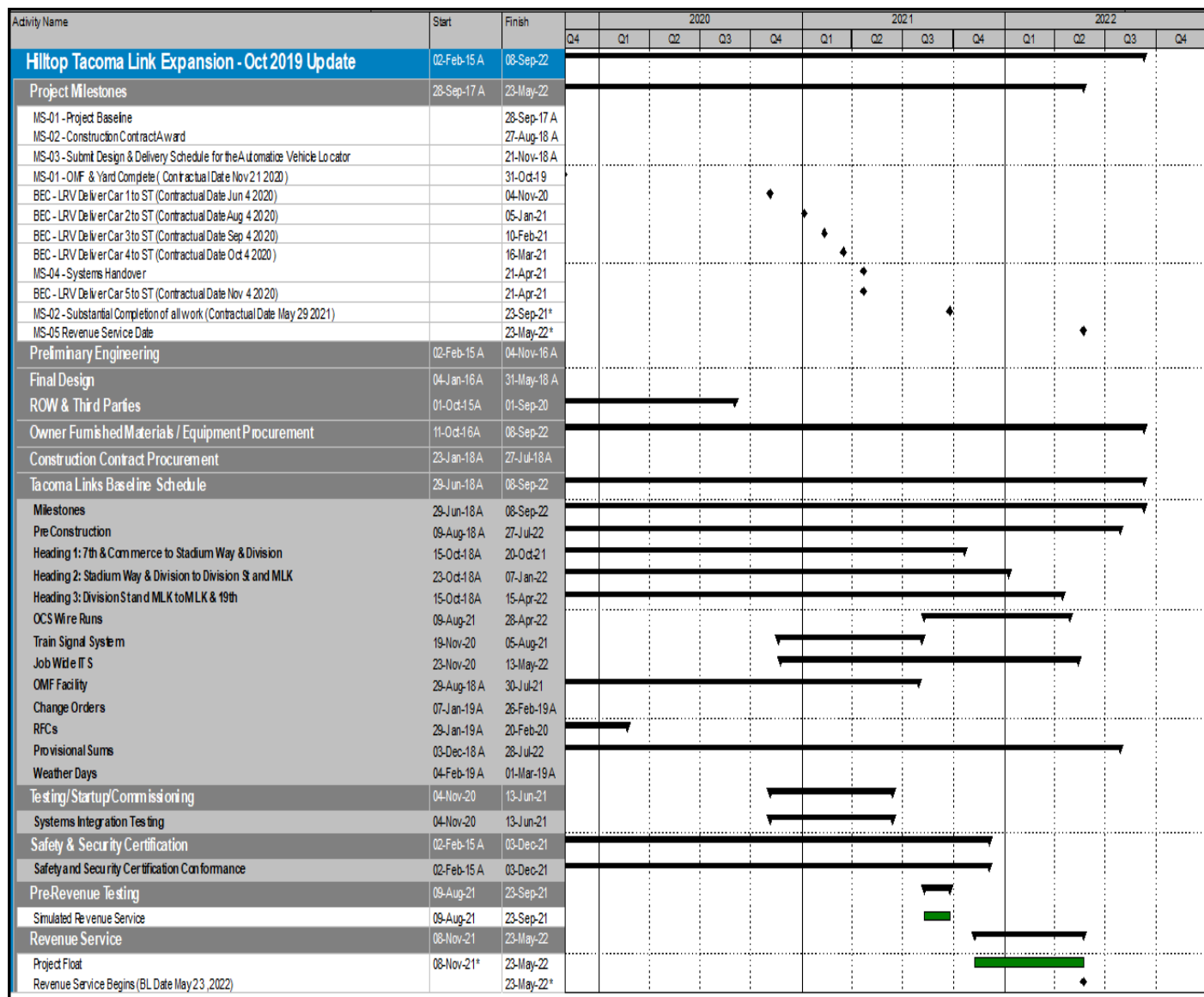


Project Schedule

The Master Schedule has been updated through the end of October 2019.

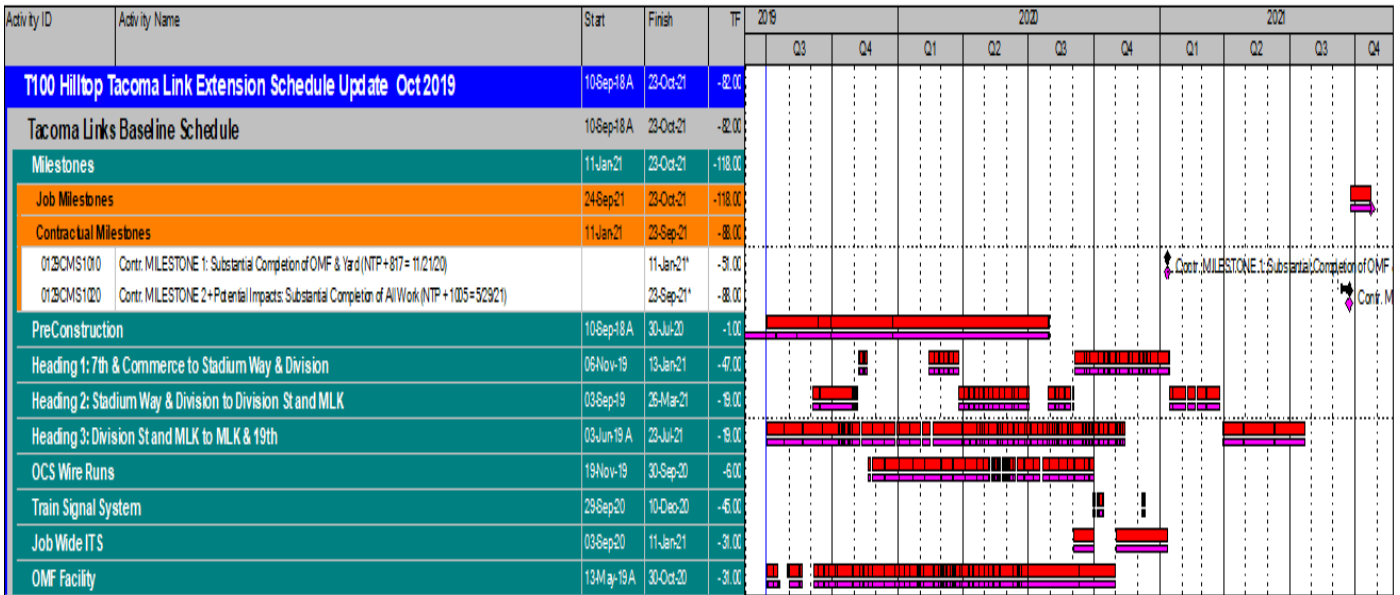
LRV: The LRV procurement contractor has slipped milestones: Preliminary Design Review #2 to late November 2019 and Final Design Review (FDR) completion in 1st QTR 2020. Forecast delivery of the first car arriving in 4th QTR 2020 and last car in 2nd QTR 2021. Despite the slip contractor schedule is projecting all cars will still be delivered in time to support pre-revenue service startup in 3rd QTR 2021.

T100: Construction Schedule MS#2 Substantial Completion of all work has slipped from May 2021 to September 2021. Per the last approved schedule (June 2019), the slip is due to design issues and differing site conditions causing delays in the installation of track. A HTLE recovery workshop was held on Oct 24 –25 to identify and resolve issues that the contractor required direction to re-plan remaining utility/track work to mitigate the schedule impact.



Critical Path Analysis

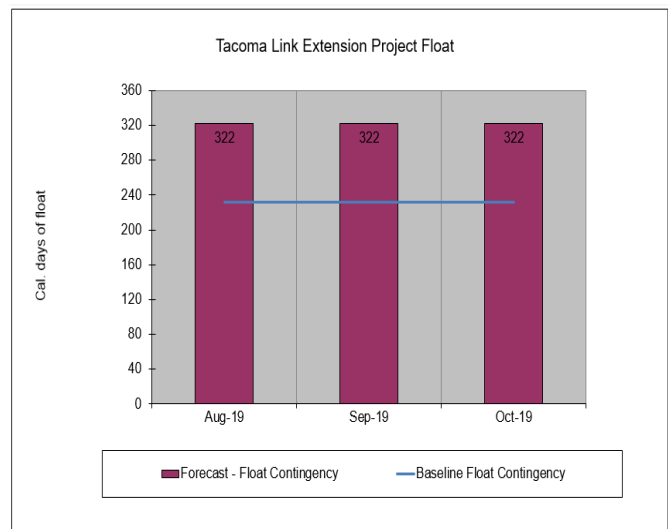
The Hilltop Tacoma Link Extension project critical path analysis for October 2019 shows the critical path running through the T100 Construction contract. T100 Construction critical path continues to be the completion of jack and bore for utilities in Heading 2B, which impacts the installation of inbound/outbound track for all headings. The contractor is still working on a recovery schedule to show the resequencing of the remaining work in the Stadium High School area and track installation which will be required in order to achieve the MS #2 Substantial Completion in 2nd QRT 2021.



Project Float

The Tacoma Link Extension project currently forecasts 322 days of unallocated project float. Seven days of project float have been used for weather delays. The program was baselined with 232 days of project float from MS #2 Substantial Completion to Start of Revenue Service May 23, 2022.

RFC #148 Request for a time extension due to differing site conditions and design issues are still being negotiated with contractor and have not been reflected in the current project float drawdown.



Right-of-Way

The Hilltop Tacoma Link Operations and Maintenance Facility will expand to the east and five new vehicles will be purchased. The Right-of-Way effort for this project involved 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 resulted in owner and tenant residential and commercial relocations. The following table summarizes the Right-of-Way program status for this period. All project property acquisitions are complete.

Tacoma Link Extension Property Acquisition Status					
ACQUISITION				RELOCATION	
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
20	20	20	20	1	1
<i>* All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.</i>					

Community Outreach

- Met with Metro Parks Tacoma to discuss rail welding on Division Ave. near Wright Park and on MLK Jr. Way near People's Community Center, Oct 22. Provided an update on the HTLE project.
- Met with MultiCare to discuss the jack-and-bore operations for the Baker pedestrian tunnel, Oct. 9.
- Gave an update on the HTLE project to residents in the 505 Broadway building, Oct. 2. Answered their questions about access to their parking garage, right-turns out of the parking garage, garbage pick-up, Stadium Way lane closure, and contractor parking near the driveway.
- Gave a short update on the HTLE project and talked about job opportunities in the transportation field with Stadium High School students, Oct. 4.
- Gave a tour of the HTLE project to a group of engineers from China. Collaborated with a University of Washington Tacoma professor on the tour, Oct. 9.
- Gave a HTLE project update at the Hilltop Business Association's monthly meeting (Oct. 17) and the Stadium Business District's quarterly meeting, Oct. 9.
- Provided notification about water line work on MLK Jr. Way from 11th St. to 6th Ave., Division Ave. and Yakima Ave. intersection closure for electrical work, Division Ave and K St. intersection closure for utility work, potholing and OCS foundations work on N. 1st St. and track installation on Stadium Way.
- Produced and distributed weekly construction alerts about traffic impacts.
- Met with the HTLE stakeholders outreach committee to continue coordinating communications on the HTLE project, Oct. 24.
- Visited businesses on N. 1st St. and Division Ave. to discuss upcoming construction (OCS foundations, Yakima & Division intersection closure, and rail welding on Division Ave).
- Visited businesses on MLK Jr. Way to discuss the water line work on MLK Jr. Way from 11th St to 6th Ave.
- Informed businesses near Division Ave. and J St. about the emergency sewer repair.
- Coordinated with the contractor, two businesses on E. 25th St. and a mobile detail service to clean vehicles affected by the overspray at the OMF.
- Continued coordinating with apartments and condos along Stadium Way on access and move-ins and garbage service.
- Responded to community questions about potential ground movement at TPSS 1, noise on Stadium Way while moving rail before 7 a.m., and traffic on Stadium Way and the detour routes.
- Coordinated with SpaceWorks on temporary murals that would be installed at businesses along the HTLE route.
- Continued to provide businesses are open signs.

Sound Transit Board Actions

Board Action	Description	Date
	None to report this period.	

Construction Safety

Data/ Measure	October 2019	Year to Date	Project to Date
Recordable Injury/Illness Cases	1	2	3
Days Away From Work Cases	0	0	0
Total Days Away From Work	0	0	0
First Aid Cases	0	6	7
Reported Near Mishaps	0	5	12
Average Number of Employees on Worksite	108	-	-
Total # of Hours (GC & Subs)	9,458	102,296	114,109
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	21.15	3.91	5.26
LTI Rate	0.00	0.00	0.00
Recordable National Average	3.10		
LTI National Average	1.20		
Recordable WA State Average	5.70		
LTI WA State Average	2.30		

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

Link Light Rail Hilltop Tacoma Link Extension



Contract T100 — Hilltop Tacoma Link Extension

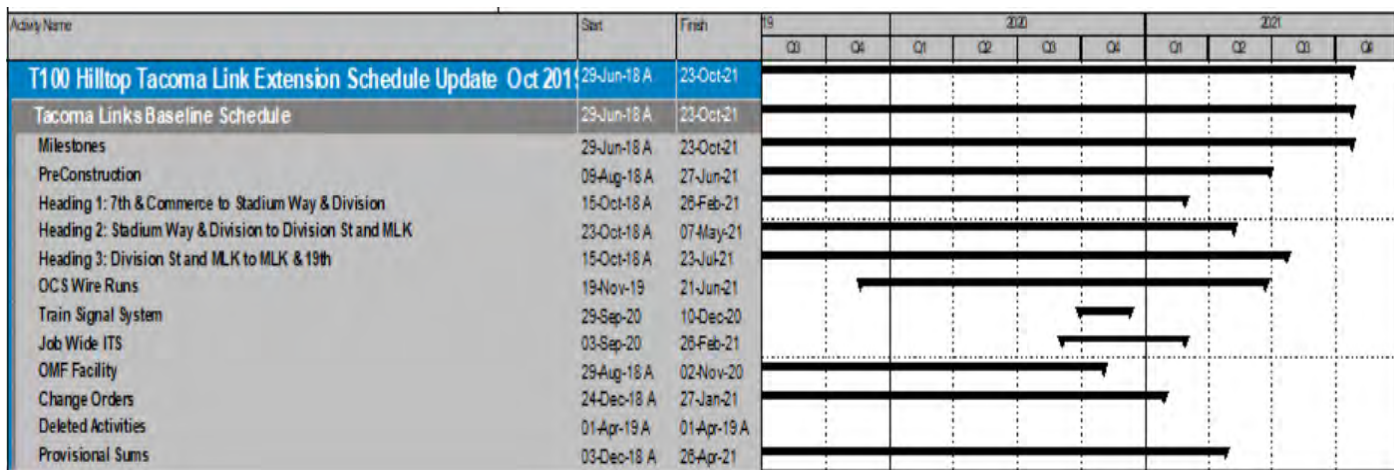
Current Progress

The T100 Contractor, Walsh Construction Company II, LLC, is continuing OMF and Mainline work at grade.

- Heading 1 - Started inbound track installation.
- Heading 2B - Installation of electrical raceway at intersection of Division and Yakima is complete.
- Heading 3 - Started Jack and Bore work in Heading 3 for storm and sewer.
- OMF - Completed Main Slab and installed guard rails around the truing pit.
- OMF - Cleared site for TPSS #5.

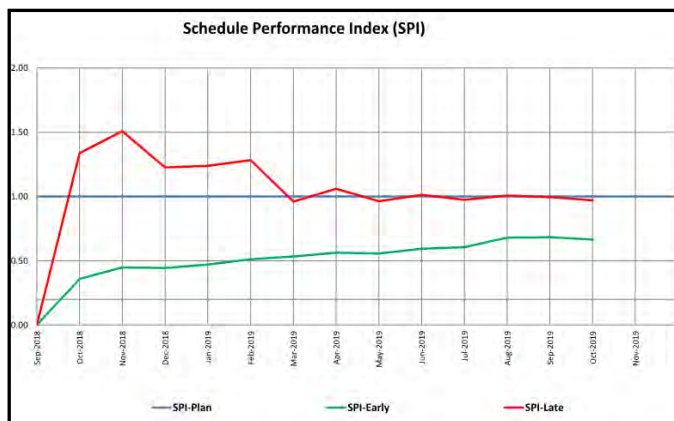
Schedule Summary

The schedule update for October 2019 indicates a revised completion date for the OMF Substantial Completion in 1st QTR 2021 and MS #2 Substantial Completion of all Work is completing in 3rd Quarter 2021. The wet utility work continues to be behind schedule due to design errors and differing site conditions, which in turn affects track installation. Contractor has submitted a request for a time extension for contract MS #2 Substantial Completion of All Work; This request for change is still under review by Construction Management team to determine merit of amount of days requested by the contractor. Contractor is preparing a recovery plan schedule which will be submitted in November 2019 after the HTLE recovery workshop. Weighted Percent Complete is currently 46%.



Schedule Performance Index

This period, the SPI-early slightly decreased to .67 and the SPI-late slightly decreased to 0.97. The early index indicates that the contractor continues to perform behind the plan when compared to the baseline schedule. Based on the current trends there is a high likelihood of schedule impacts to the current T100 contract milestones.



Next Period's Activities

- Heading 1— Substantially complete Inbound Track installation (with the exception of Commerce St.) and start OCS cantilever pole installation. Continue Outbound track installation.
- Heading 2B - Continue storm relocations at Division Ave. to MLK. Perform OCS pole foundations in Stadium District. Install systems duct bank and weld rail at Division and Yakima.
- Heading 3- Continue jack-and-bore work for storm and sewer work at the Tacoma General's pedestrian tunnels. Continue water and storm relocations and OCS installations at various locations along MLK. Begin rail welding at terminus on MLK. Complete OCS pole foundations.
- OMF: Installation of track to the truing pit and exterior framing and pre-cast panel installation

Closely Monitored Issues

- The third party utility relocations (Tacoma Public Utility, CenturyLink and PSE) appear to have little impact on the T100 contract schedule and the HTLE Contractor has shown flexibility in accommodating the remaining third party work through coordinated sequencing. ST construction management continue to monitor for potential cost and schedule impacts.
- Notifications to the community are critical in providing advance notice of upcoming construction activities. Business mitigation efforts are underway to support businesses impacted by construction activities. Community Outreach staff are managing this effort with the support of Contractor, City of Tacoma and ST field staff.
- TPSS#1 retaining wall drainage issue was resolved but delay to work is likely to have schedule and cost implications.
- Working with Contractor to develop a realistic schedule to complete.

Cost Summary

Present Financial Status	Amount
T100 Contractor— Walsh Construction Company	
Original Contract Value	\$ 108,295,000
Change Order Value	\$ 3,962,935
Current Contract Value	\$ 112,257,935
Total Actual Cost (Incurred to Date)	\$ 54,901,975
Percent Complete	46%
Authorized Contingency	\$ 1,451,815
Contingency Drawdown	\$ 3,962,935
Contingency Index	0.6



Floor Slab Preparation—OMF

Link Light Rail Tacoma Dome Link Extension

Project Summary

Scope

Limits	Federal Way Transit Center to South Federal Way, Fife, East Tacoma, and Tacoma Dome
Alignment	The Tacoma Dome Link Extension expands light rail 9.7 miles from the Federal Way Transit Center to Tacoma. The representative alignment travels adjacent to I-5 with four stations.
Stations	South Federal Way, Fife, and East Tacoma (elevated stations) and Tacoma Dome (at-grade station)
Systems	Signals, traction power, communications (SCADA), Operations and Maintenance Facility South (OMF South)
Phase	Planning: Alternative Development
Budget	\$125.7 Million for Preliminary Engineering Phase 1—Alternative Development
Schedule	Revenue Service: December 2030



Map of Tacoma Dome Link Extension.

Key Project Activities

- Developed proposed Area of Potential Impact (APE) and Survey Plan approach for discussion with FTA and Department of Archeology & Historical Preservation (DAHP) on 10/3.
- Reached concurrence with City of Federal Way on visioning process scope for South Federal Way Station area.
- Participated in Urban Land Institute (ULI) Technical Advisory Panel (TAP) on Tacoma Dome Station.
- The TDLE team refined alignment and station locations and developed the new “Close to Sounder” alternative, consistent with the Board action this past summer. They are also convening internal workshops to select the delivery method
- The OMF South team is working to confirm the necessary elements to be provided within the OMF South footprint to meet programming and operation needs. They are also convening internal workshops to select the delivery method
- Environmental team kicking off environmental impact analysis for TDLE based on “early snapshot” footprint.
- Met with jurisdictions to receive input on transportation analysis assumptions for TDLE.

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.

Project cost and monthly expenditures are trending lower than planned monthly budget but the current forecast is on track for completing this phase within the authorized budgeted amount.

Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$26.8	\$5.6	\$5.2	\$26.8	\$0.0
Preliminary Engineering	\$87.1	\$47.2	\$11.9	\$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	\$0.7	\$0.3	\$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	\$0.4	\$0.0	\$6.0	\$0.0
Total	\$125.7	\$53.9	\$17.4	\$125.7	\$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	\$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	\$0.4	\$0.0	\$5.0	\$0.0
80 Professional Services	\$110.9	\$53.5	\$17.4	\$110.9	\$0.0
90 Unallocated Contingency	\$9.8	\$0.0	\$0.0	\$9.8	\$0.0
Total (10 - 90)	\$125.7	\$53.9	\$17.4	\$125.7	\$0.0

Link Light Rail Tacoma Dome Link Extension



Risk Management

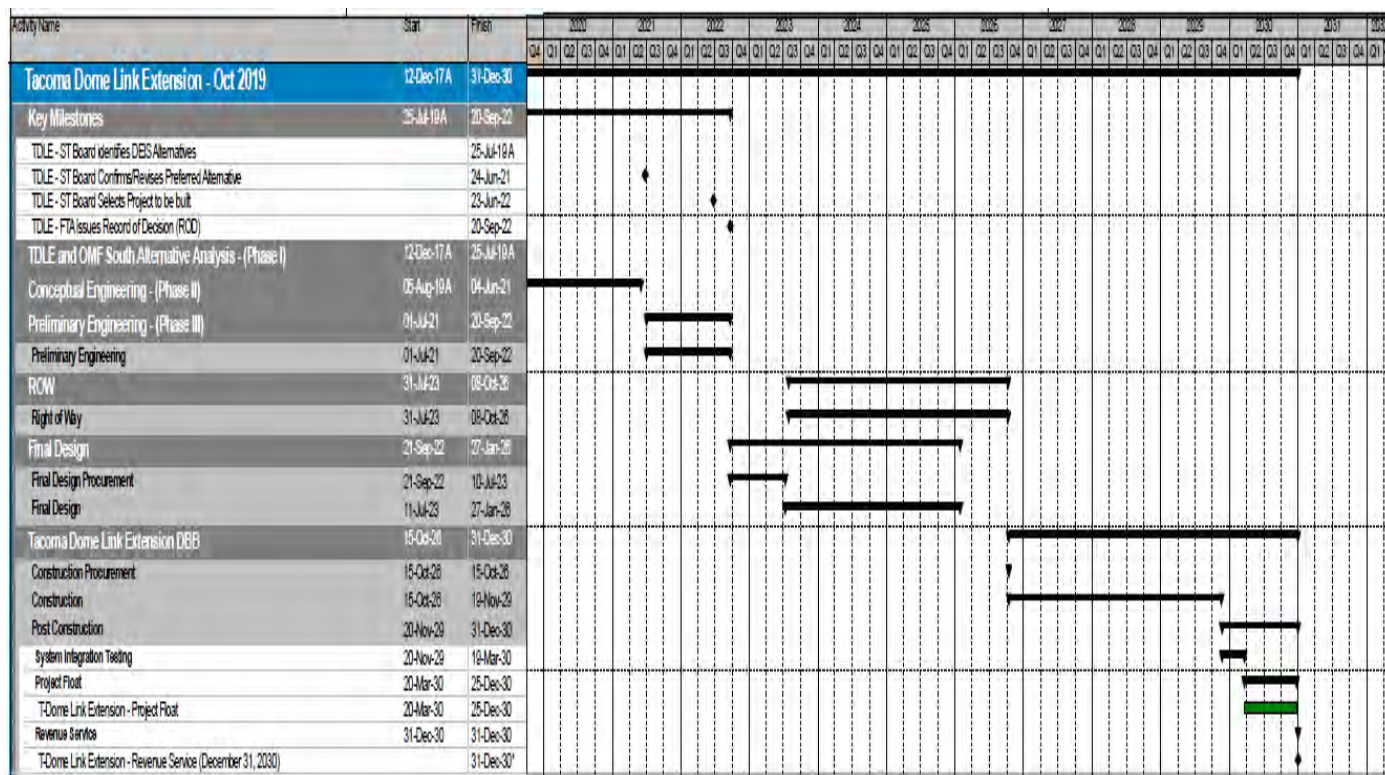
The Tacoma Dome Link Extension and OMF South Risk and Contingency Management Plan (RCMP) will establish a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage 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 3rd QTR 2019 risk review workshop was held in September. The following are the top project wide risks:

- Preferred alignment cost is greater than the ST3 budgeted project cost may cause the project to delay.
- OMF South cost is greater than the ST3 budgeted project cost may cause the project to delay.
- OMF South can not be built in time for ST3 vehicle schedule.
- Lack of federal funding for public transit projects could delay the project.
- Puyallup Tribe may take longer than planned to provide cultural resources and/or fisheries, stormwater mitigation approvals.

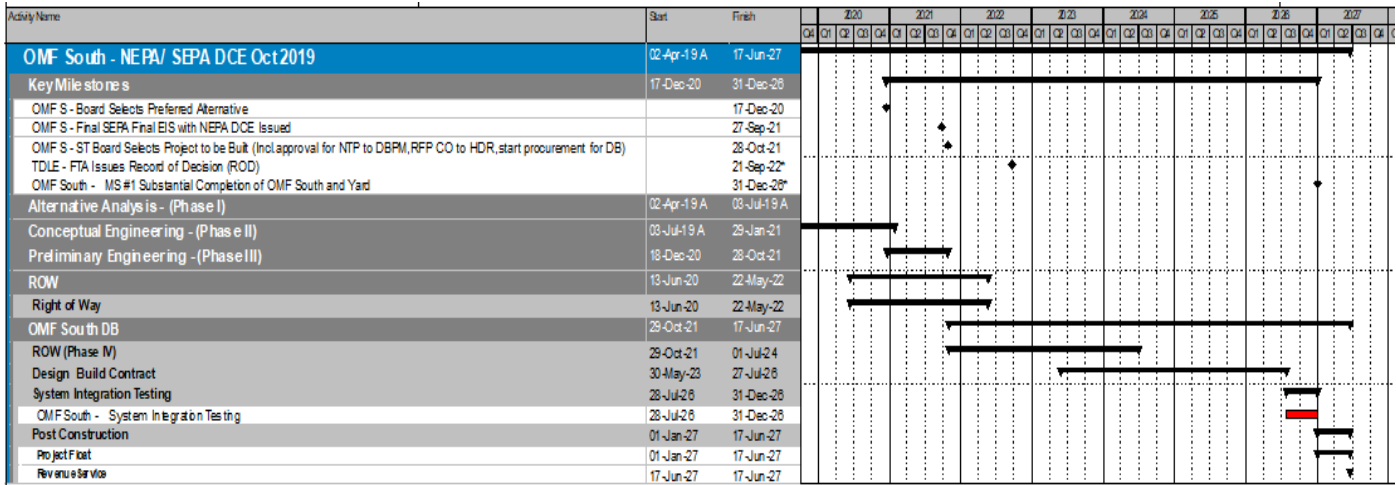
TDLE Project Schedule

Below is the HDR consultant detailed schedule as of October 31, 2019. The schedule indicates the Draft EIS publication completion in 1st QTR 2021 with ST Board Confirms/Revises Preferred Alternative in 2nd QTR 2021. Final EIS publication shows completion in 2nd QTR 2022. FTA issuance of the Record of Decision expected in 3rd QTR 2022. Revenue Service is targeted for December 31, 2030.



OMF South Project Schedule

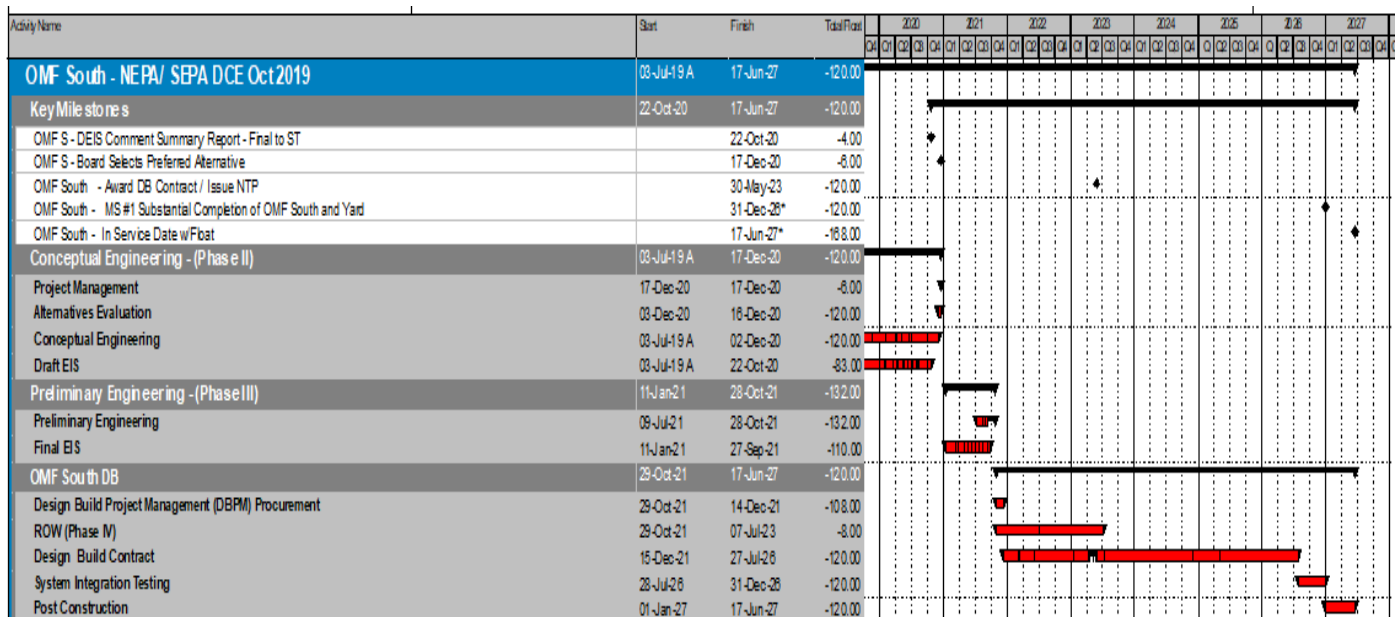
Below is the summary schedule as of October 31, 2019. The schedule indicates OMF South is in the Conceptual Engineering phase now and Final SEPA EIS with NEPA DCE will be published in 3rd QTR 2021. ST Board Selects Project to be Built 4th QTR 2021 after Preliminary Engineering is completed. The milestone, Substantial Completion of the OMF South and Yard, is targeted for December 2026 to receive the ST3 Light Rail Vehicle cars and perform burn-in testing to support TDLE Revenue Service in December 31, 2030.



Critical Path Analysis

The critical path for the overall TDLE program continues to run through OMF South portion of the project. OMF South must complete conceptual engineering and environmental to produce the Draft EIS. The critical path then continues through the project life cycle of conceptual, preliminary design, final design, permitting, Right-of-Way acquisition, and construction to meet a target substantial completion of December 2026.

Two Delivery Strategy Workshops were held in October 2019 and another workshop is to be held in November. The workshops are to determine the best project procurement methods to be used in OMF South portion of the project.



Link Light Rail Tacoma Dome Link Extension



Community Outreach

- TDLE – Provided briefings to the following: McDonalds in partnership with the City of Fife (9/4); Harsch Investment Properties and Natalie Quick Consulting (10/3); Fife Harvest Festival (10/5); Raceway Technology (10/23); and Eastside Collaborative (10/18).
- TDLE – Participated in the following meetings: Downtown on the Go block party in Tacoma (9/7); New Tacoma Neighborhood Council Meeting (9/11); Dome District meeting (9/12);
- TDLE – Hosted IAG meeting (10/7)
- TDLE – Conducted stakeholder interview with the following: City of Fife Communications Department (10/17); TACID (10/17); Tacoma Urban League (10/17); Asia Pacific Cultural Center (10/18); Fife Public Schools (10/30); and with Korean Women’s Association (10/31)
- TDLE/OMFS – Conducted stakeholder interview with the Multi-Service Center
- OMFS – Provided briefing to Neighbors of West Hills Council (9/19)
- OMFS – Hosted IAG meeting (10/7)

Sound Transit Board Actions

Board Action	Description	Date
	None to Report	

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Link Light Rail

Link Operations & Maintenance Facility: East



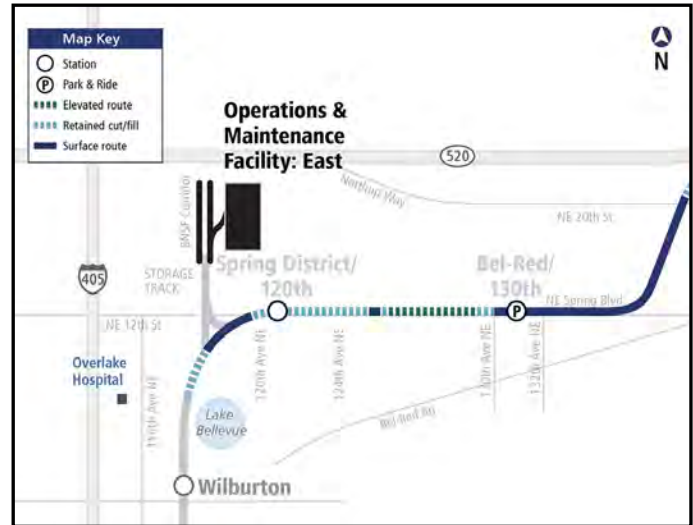
Project Summary

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.

Phase Proceed to Construction

Budget \$449.2 Million (Baselined July 2016)

Schedule Project Completion: December 2020



Map of OMF East Site

Key Project Activities

- Design Package (DP) DP3B - OCS Assemblies is scheduled for resubmittal in October 2019.
- Continued tie-ins to mains at 120th Ave for domestic water, firewater and irrigation.
- OMF East building continues with slab-on-grade and overhead mechanical and plumbing.
- Maintenance of Way (MOW) building continues with slab-on-grade, exterior metal framing began and roofing.
- Completed backfill of TPSS and utility connections.
- Skeletonizing of stand track, pre-curved, and special track in the south and north storage fan.

Closely Monitored Issues

- Monitoring commissioning and testing in support of project transition to Operations.
- Monitoring LRV delivery rate and storage capacity at the existing OMF Central.



Link Light Rail

Link Operations & Maintenance Facility: East

Project Cost Summary

The Baseline Budget (July 2016) 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.

The Estimated Final Costs (EFC) continues to be projected at approximately \$449.2M. This period’s expenditure of about \$9.7M. The total project cost incurred increased from \$256.7M to \$266.4M. The primary cost drivers during this period on the OMF East project comes from the design build (construction) phase at \$9.2M or roughly 95% of the total monthly expenditures. The next cost driver this period are the Construction Services and Administrative Phase (predominantly staff cost) expenditures at about \$500K and \$100K respectively.

Cost Summary by Phase

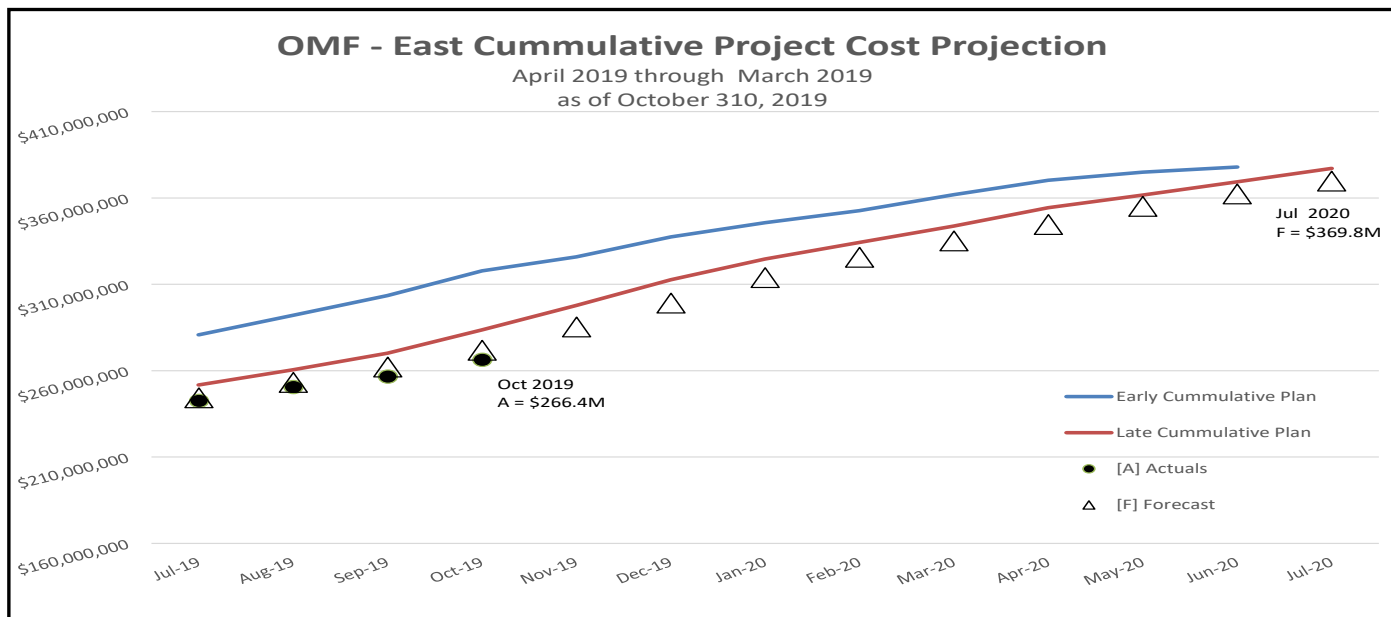
Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$17.6	\$17.6	\$6.3	\$6.3	\$17.6	\$0.0
Preliminary Engineering	\$9.5	\$9.5	\$9.0	\$8.7	\$9.5	\$0.0
Final Design	\$0.4	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction Services	\$19.3	\$19.3	\$17.5	\$8.8	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.3	\$0.1	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$225.4	\$140.0	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$102.7	\$102.5	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$361.3	\$266.4	\$449.2	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$2.6	\$4.4	\$4.1	\$2.3	\$4.1	\$0.3
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities: Yard, Shop	\$140.1	\$136.1	\$125.7	\$78.4	\$146.2	-\$10.1
40 Sitework & Special Conditions	\$43.6	\$48.5	\$40.1	\$22.4	\$43.1	\$5.4
50 Systems	\$43.0	\$41.6	\$39.0	\$21.7	\$39.0	\$2.6
Construction Subtotal (10 - 50)	\$229.3	\$230.6	\$208.9	\$124.8	\$232.4	-\$1.8
60 ROW, Land, Improvements	\$134.5	\$134.5	\$102.7	\$102.5	\$134.5	\$0.0
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$71.6	\$70.3	\$49.6	\$39.1	\$68.5	\$1.8
90 Unallocated Contingency	\$13.8	\$13.8	\$0.0	\$0.0	\$13.8	\$0.0
Total (10 - 90)	\$449.2	\$449.2	\$361.3	\$266.4	\$449.2	\$0.0

Project Cash Flow Projection

The OMF East cost projection is trending late this period but anticipates to pick up through the following summer. Total project expenditure incurred to date at approximated \$266.4M with Construction Phase at 53% and Right-of-Way (ROW) phase at 38%. Construction activities is now the main cost driver. The forecasted cash flow was revised this period for the next nine months to reflect some current trends. While the Design Builder's (DB) design completion slipped and impacted specifically on Systems where some anticipated procurements did not occur as planned, construction has certainly picked up on yard tracks and structural steel installations. The project expenditure continues to trend a projection of \$369.8M by June of 2020 which is at the lower bounds of the late planned expenditures as shown in the graph below.



Risk Management

The 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.

The project has completed Risk Mitigation Milestone (RMS) 2, the completion of ROW Acquisition and Mass Grading. The Quantitative Risk Assessment (QRA) assessed that with the current risk profile, the project would complete within the baseline schedule and budget. QRA for RMS 3, the completion of building enclosure, is currently being planned for December 2019.

The current top actively managed risk areas remains similar to the previous quarter and are listed below:

- **Design:** As the project approaches the 100% design milestone, changes made to scope or design will have greater cost impact than during the earlier design stages.
- **Scope:** Scope interfaces with East Link (E335/E750) tracks, OCS, Signals, LRV vehicle envelop, Operations' requirement changes creates additional work impacts the project's schedule and budget.
- **Construction:** As the construction progress past the midpoint, normal and routine construction risks will be encountered and post-IFC change to design may also drive cost growth to the project. Safety and environmental compliance is another area to monitor especially as the wet season begins.
- **Start Up:** As the project progress, it is inevitable that the startup phase needs to be address early. This facility will need coordination for testing and acceptance of ST Operations.

Contingency Management

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. The Project’s starting contingency balance as of the Notice to Proceed for Construction was \$71.6M. Reflecting the inclusion of the Design Allowance in the Design Builder contract amount. In this period, change orders were related to various construction scope. The current contingency balance remains materially unchanged at approximately \$67.1M (previous period at \$68.8M).

Design Allowance (DA): N/A

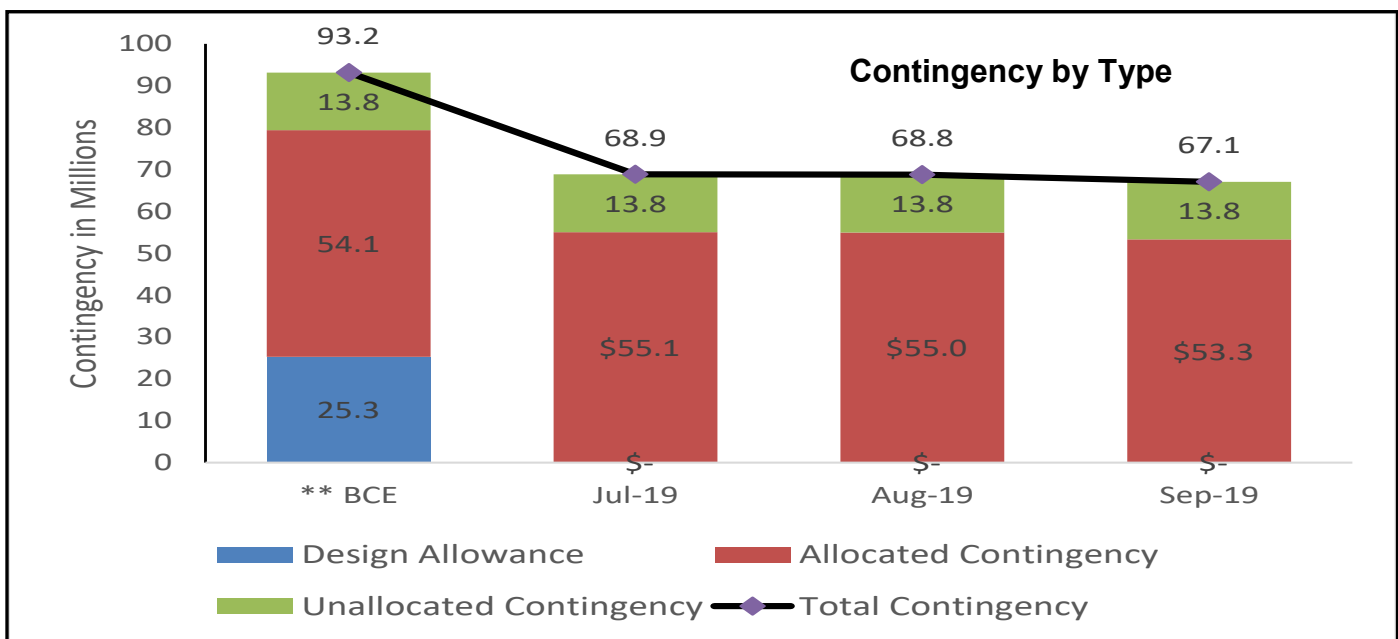
Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. Allocated contingency balance at the end of this period remains at \$53.3M (the previous period at \$55.0M).

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The baseline UAC amount of \$13.8M reflects no changes this period.

Contingency Status

Contingency Type	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$ 25.3	5.6%	\$ -	0.0%
Allocated Contingency	\$ 54.1	12.0%	\$ 53.3	27.7%
Unallocated Contingency	\$ 13.8	3.1%	\$ 13.8	7.2%
Total	\$ 93.2	20.7%	\$ 67.1	34.8%

Table figures are shown in millions.

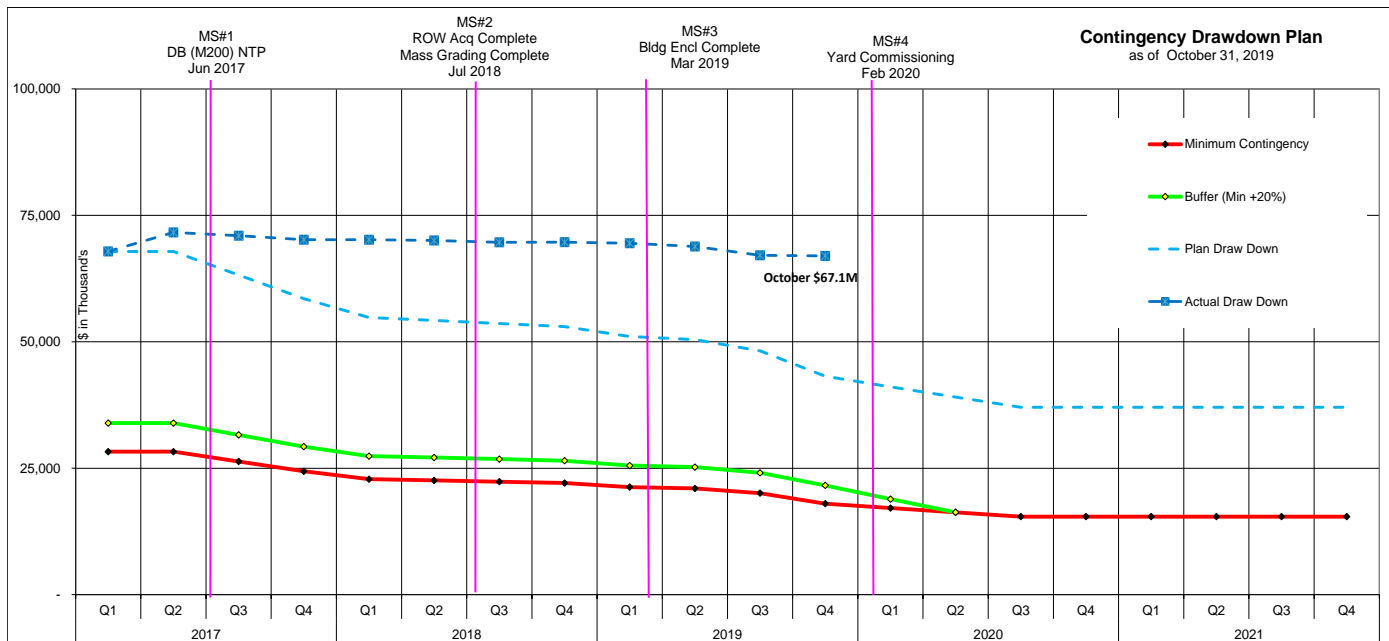


Link Light Rail Link Operations & Maintenance Facility: East



Contingency Drawdown

At the end of the 3rd QTR 2019, OMF East Project's total contingency drawdown plan is trending positively. Total contingencies balance is at approximate \$67.1M (previously quarter at \$68.8M) and remains above all the baseline draw down projection and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels. The next update will be at end of the 4th QTR 2019. Risk Mitigation Milestone #3 has been revised to be met in 4th QTR 2019.



OMF East looking north taking shape with yard scope and steel structure framing on October 31, 2019

Project Schedule

The schedule for OMF East is now entirely within the M200 contract, which is presented below. The Contractor continues to progress as planned and is forecast to complete on target. The OMF East is expected to be available to begin receiving LRVs as needed in the Summer 2020.

Activity Name	Start	Finish	2020					
			Q4	Q1	Q2	Q3	Q4	
Sound Transit	19-Jun-17 A	23-Dec-20						
Sound Transit 2	19-Jun-17 A	23-Dec-20						
East Corridor	19-Jun-17 A	23-Dec-20						
Operating Facilities - East	19-Jun-17 A	23-Dec-20						
LINK Operations & Maintenance Facility: East	19-Jun-17 A	23-Dec-20						
Link OMFE - Construction	19-Jun-17 A	08-Oct-20						
M200 - Link OMFE - Design Build Contract	19-Jun-17 A	08-Oct-20						
M200 Construction	19-Jun-17 A	08-Oct-20						
Preconstruction & Administration	19-Jun-17 A	08-Oct-20						
Construction	19-Jun-17 A	28-Aug-20						
Mobilization & Early Sitework	19-Jun-17 A	04-May-20						
Maintenance & Shop Building	23-Jul-18 A	19-Jun-20						
Maintenance of Way Building	22-Jan-19 A	23-Jun-20						
Ancillary Structures	08-Jul-19 A	07-May-20						
Trackwork	13-Jul-18 A	24-Apr-20						
Site Surfacing & Finishes	01-Nov-18 A	24-Mar-20						
Project Closeout	01-Apr-18 A	28-Aug-20						
Link OMFE - Project Completion	07-Oct-20	23-Dec-20						
Link OMFE - Project Closeout	07-Oct-20	23-Dec-20						
Project Float	07-Oct-20	23-Dec-20						
Project Completion (Baseline 23-Dec-20)		23-Dec-20*						

Critical Path Analysis

The critical path continues to run through the shop area and equipment in the Maintenance & Shop Building, and then through building commissioning and project closeout.

Activity Name	Start	Finish	2020						
			Q4	Q1	Q2	Q3	Q4	Q1	
Link OMFE - Construction	17-Aug-19 A	06-Nov-20							
M200 Construction	17-Aug-19 A	05-Nov-20							
Preconstruction & Administration	08-Aug-20	05-Nov-20							
Milestones	08-Aug-20	05-Nov-20							
Construction	17-Aug-19 A	07-Aug-20							
Maintenance & Shop Building	04-Oct-19 A	19-Jun-20							
Structure	04-Oct-19 A	15-Nov-19							
Overhead Roughins	18-Nov-19	19-Mar-20							
Equipment	20-Mar-20	19-Jun-20							
Project Closeout	17-Aug-19 A	07-Aug-20							
Commissioning	17-Aug-19 A	07-Aug-20							
Link OMFE - Project Completion	07-Oct-20	23-Dec-20							
Link OMFE - Project Closeout	07-Oct-20	23-Dec-20							
Project Float	07-Oct-20	23-Dec-20							
Project Completion (Baseline 23-Dec-20)		23-Dec-20*							

Link Light Rail

Link Operations & Maintenance Facility: East



Community Outreach

Distributed a construction alert for nighttime construction activities on 120th Avenue NE for water line tie-ins and worked with the Bellevue neighborhood of Bridle Trails, Lake Bellevue and the new Sparc apartment complex to inform them of the nighttime work and what people might expect during this activity

Sound Transit Board Actions

Board Action	Description	Date
	None to report this period.	

Construction Safety

Data/ Measure	October 2019	Year to Date	Project to Date
Recordable Injury/Illness Cases	0	3	4
Days Away From Work Cases	0	2	2
Total Days Away From Work	0	31	31
First Aid Cases	0	5	8
Reported Near Mishaps	1	9	12
Average Number of Employees on Worksite	140	-	-
Total # of Hours (GC & Subs)	30,000	183,131	276,135
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	0.00	3.28	2.90
LTI Rate	0.00	2.18	1.45
Recordable National Average	3.00	3.00	3.00
LTI National Average	1.20	1.20	1.20
Recordable WA State Average	6.00	6.00	6.00
LTI WA State Average	1.90	1.90	1.90

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.

Contract M200 - OMF East Design Build

Current Progress

Design: Hensel Phelps (HP) advanced design package (DP) for DP03B was submitted and approved by Sound Transit in October 2019.

Construction: HP skeletonized standard and pre-curved track continued in the storage track and south storage fan area. Ballasted track assembly is ongoing for both south and north runaround tracks. Interior overhead rough-ins continued with sprinkler installation, mechanical duct, interior wall framing and roofing at OMF. The radiant flooring was completed at the MOW building along with the interior level one slabs. Ongoing exterior metal framing around the building.

Next Period's Activities

- Continue work at OMF East Building.
- Continue work at MOW Building.
- Continue tie-ins to for domestic water, firewater and irrigation.
- Continue installation of ballast and pre-track.
- Continue installation of OH plumbing and HVAC ducts.
- Continue exterior metal framing at OMF and MOW building.

Closely Monitored Issues

- PSE Delays at North Trail: PSE easement language has been received and will be routed to Sound Transit for signature and then to the Country for recording.

Cost Summary

Present Financial Status	Amount
M200 Contractor – Hensel Phelps	
Original Contract Value	\$218,912,000
Change Order Value	\$5,716,118
Current Contract Value	\$224,628,118
Total Actual Cost (Incurred to Date)	\$139,308,827
Percent Complete	65.1%
Authorized Contingency	\$21,891,200
Contingency Drawdown	\$5,716,118
*Contingency Index	3.1

*Excludes Betterments



OMFE—HVAC duct installation on the 2nd floor.

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.
Phase	Manufacturing
Budget	\$740.7 Million (Baseline September 2015, Amended April 2017)
Schedule	Project Completion: 3rd QTR 2024



Siemens' LRV on test track.

Key Project Activities

- Of the 21 design reports, 10 approved, 10 conditionally approved, 1 disapproved.
- Four LRVs received in Seattle during October 2019.
- Three LRVs wheel flats have been trued.
- Car shell fabrication from Car 237 to 243 continue to progress.
- Siemens is currently on par with their recovery schedule in terms of number of LRVs, delivered.

Closely Monitored Issues

- High schedule risk for commissioning and burn-in of Siemens' LRVs until lift jacks issue is resolved.
- OMF Central yard storage capacity in 2020 may limit Siemens LRV delivery schedule; production progress is being monitored closely. Risk lower, shifting to 2021. LRVs delivery and transportation study between OMFC & OMFE based on updated schedule is in progress.
- High number of documents on Certifiable Items List (CIL) pending approval: Design (42%), Qualification (97%).



Car 218 on M6N at Seattle, WA.



Car 217 Bay 26 Final Watertest at Sacramento, CA.

Project Cost Summary

The LRV Fleet Expansion Project has an approved baseline budget of \$740.7M. The project 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.

The project expenditure incurred to date is approximately \$148.3M to which a majority of the cost is attributed to the vehicles phase. The current period expenditure is approximately \$7.5M, where the majority cost is associated to LRVs of \$7.4M. The other incurred cost was attributed from staff costs of \$77.1k.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$6.4	\$6.4	\$2.4	\$2.3	\$6.4	\$0.0
Construction Services	\$18.0	\$18.0	\$15.1	\$5.1	\$18.0	\$0.0
Vehicles	\$716.3	\$716.3	\$650.4	\$140.9	\$716.3	\$0.0
Total	\$740.7	\$740.7	\$667.9	\$148.3	\$740.7	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Construction Subtotal (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	\$665.5	\$146.1	\$702.8	\$0.0
80 Professional Services	\$6.1	\$6.1	\$2.4	\$2.3	\$6.1	\$0.0
90 Contingency	\$31.7	\$31.7	\$0.0	\$0.0	\$31.7	\$0.0
Capital Total (10 - 90)	\$740.7	\$740.7	\$667.9	\$148.3	\$740.7	\$0.0

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

Risk Management

The 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 to continuously monitoring project status and associated risks. The project’s qualitative risk register reflects 3rd Quarter of 2019 , the meeting was held on October 16 and November 8, 2019. The current top risk are listed below:

- Safety Certification Process going slower than expected, with possible delays to 1st QTR 2020 revenue service dates on all programs.
- Incapability between cars and facilities wayside interface issues .
- Delay in Conditional Acceptance Testing due late arrival of special tools and test equipment from manufacture.
- Retrofit of ST1 vehicles with the new ATP system .

Link Light Rail Light Rail Vehicle Fleet Expansion



Contingency Management

The project's budget was Baseline in September 2015 and was amended in April 2016 to exercise the option LRV contained a total of \$78.0M of Total Contingency. The project's Total Contingency is currently at \$68.9M or about 13.3 % of remaining work in the project.

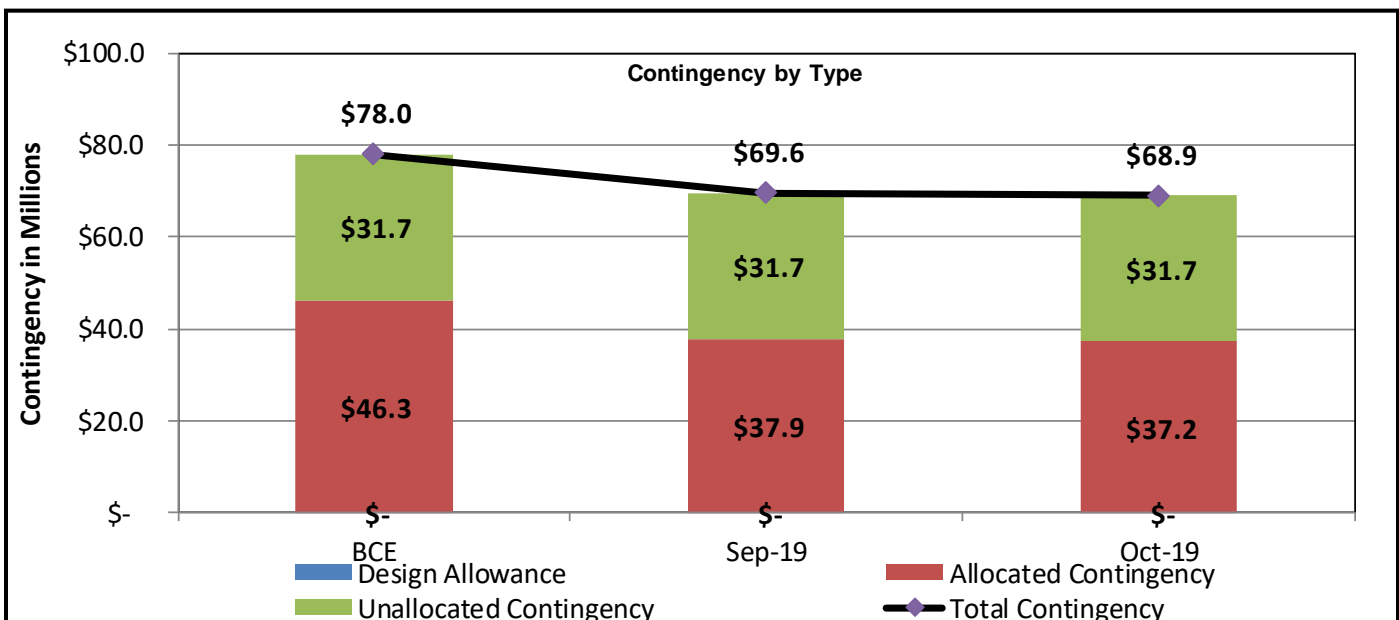
Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. This project contains \$0 design allowance.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. The project baseline's allocated contingency was \$46.3M. This period contingency draw of \$0.6M was primarily due to LRV contractual change orders.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC for October remains unchanged at \$31.7M.

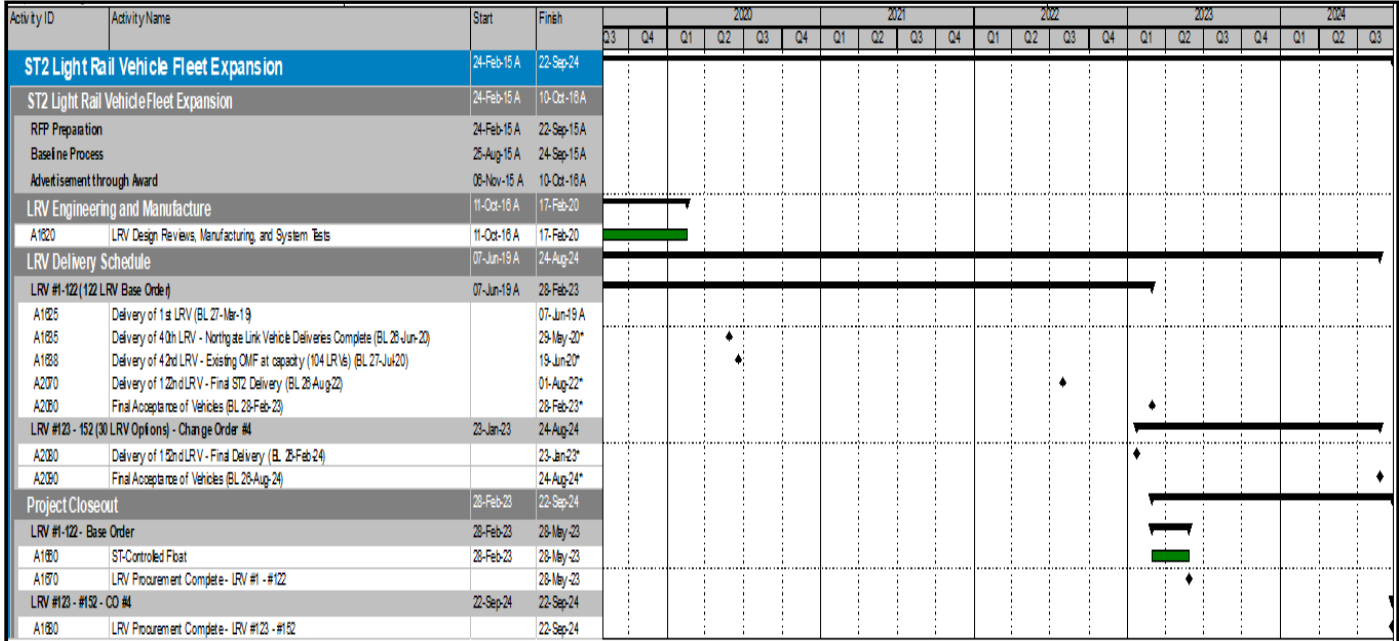
Contingency Status	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$ -	0.0%	\$ -	0.0%
Allocated Contingency	\$ 46.3	6.4%	\$ 37.2	7.2%
Unallocated Contingency	\$ 31.7	4.3%	\$ 31.7	6.1%
Total	\$ 78.0	10.7%	\$ 68.9	13.3%

Contingency by Type



Project Schedule

The progress schedule was established using the last monthly production schedule submittal and forecast testing schedule updates provided by LTK. As of October 2019, Siemens has shipped four additional cars and is currently forecasting that they will be shipping three cars in the month of November maintaining their recovery delivery schedule in order to complete conditional acceptance testing to support Northgate Pre-Revenue service target date.



LRV Delivery and Testing Progress as of October 31, 2019

LRV status	Received in Seattle	Testing in progress (Seattle)	Conditionally Accepted	Entered Revenue Service
Planned	12	12	-	-
Actual	12	7	-	-

Link Light Rail Light Rail Vehicle Fleet Expansion

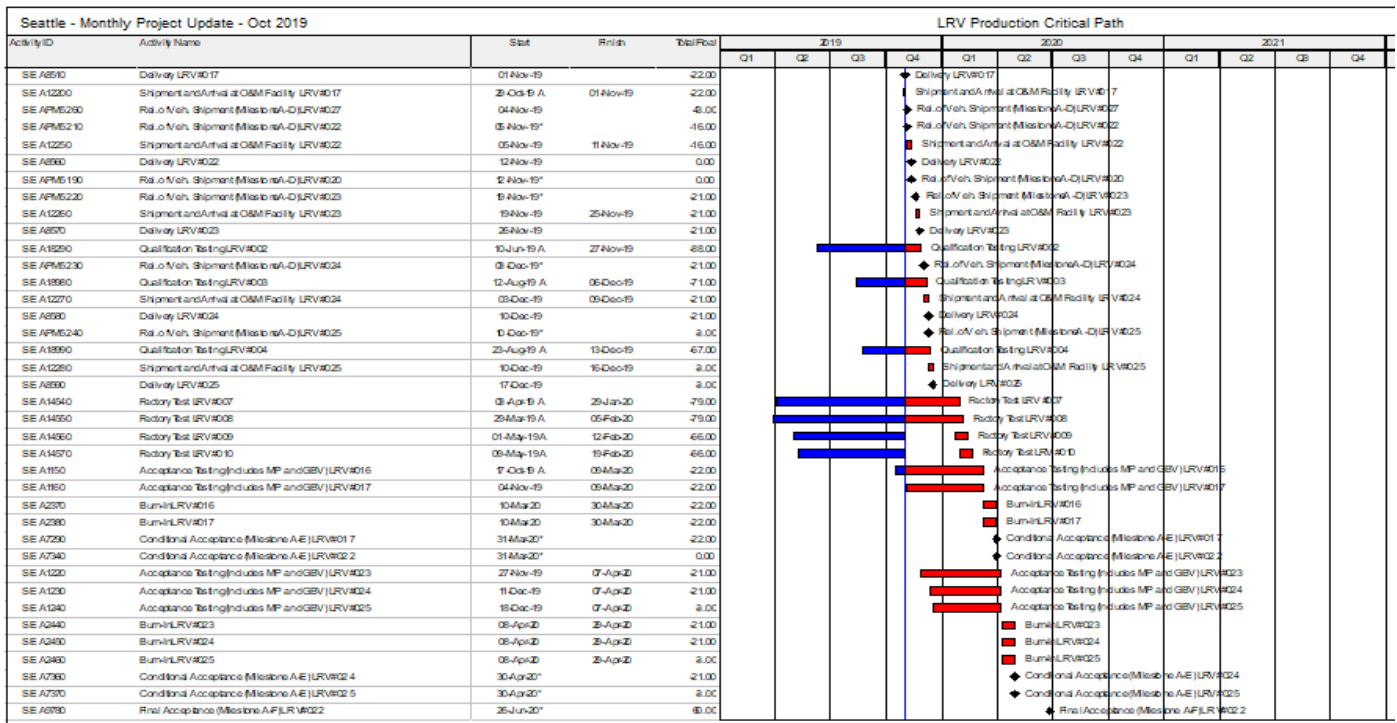


Critical Path Analysis

The critical path is completing the on-site Vehicle Performance Qualification Tests of Cars 204, 211, 214 and 215 and Acceptance Testing and Burn-In of Cars 216 –222 and delivery of the remaining cars to complete the 152 car order.

Delivery and Conditional Acceptance Testing of all 40 light rail vehicles required for Northgate Link is closely monitored to support the Pre-Revenue simulation period. The planned deliveries, commissioning and testing of light rail vehicles are anticipated to arrive by September 2024. As well as on time for the start of Pre-Revenue Service for each of the new extension lines: East Link, Lynnwood Link, Downtown Redmond Link and Federal Way Link and Federal Way Link.

LRV Manufacturing and Qualification Testing Critical Path Schedule



Link Capital Program Staffing April – September 2019 (updated quarterly)

Recruiting Status

The following positions were filled in 2nd QTR 2019 to support the Link Capital Program:

Position	Position
DECM Executive Director	Sr. Scheduling Engr
Deputy Project Director, Lynnwood Link	Risk Engineer
Permit Administrator (2)	Principal Construction Manager (2)
Sr. Land Use Permitting	Deputy Construction Manager
Manager, Civil Engineering	Sr. Project Manager
Mechanical Engr, Fire Protection	Deputy Project Director, Vehicles
Sr. Systems Engr, Traction Electrification	Capital Signage Specialist
Sr. Systems Engr, Rail/Vehicle	Project Director, Environmental Affairs
Project Control Coordinator (2)	Sr. Environmental Planner
Sr. Project Control Specialist	Environmental Planner

As of the end of 2nd QTR 2019, below is the current DECM and PEPD staffing levels:

Division	Total Positions	Open Positions	Filled Last Quarter
Executive, includes Project Directors	22	3	2
Project Management	34	2	3
Civil/Structural Engineering	60	13	1
System Engineering	40	2	2
Architecture & Art	18	0	1
Permitting	13	1	3
Construction Management	31	3	3
Project Control	62	3	5
Real Property	19	2	0
Capital Project Development	34	2	0
Environmental Affairs & Sustainability	27	2	3
TOTAL	360	33	23

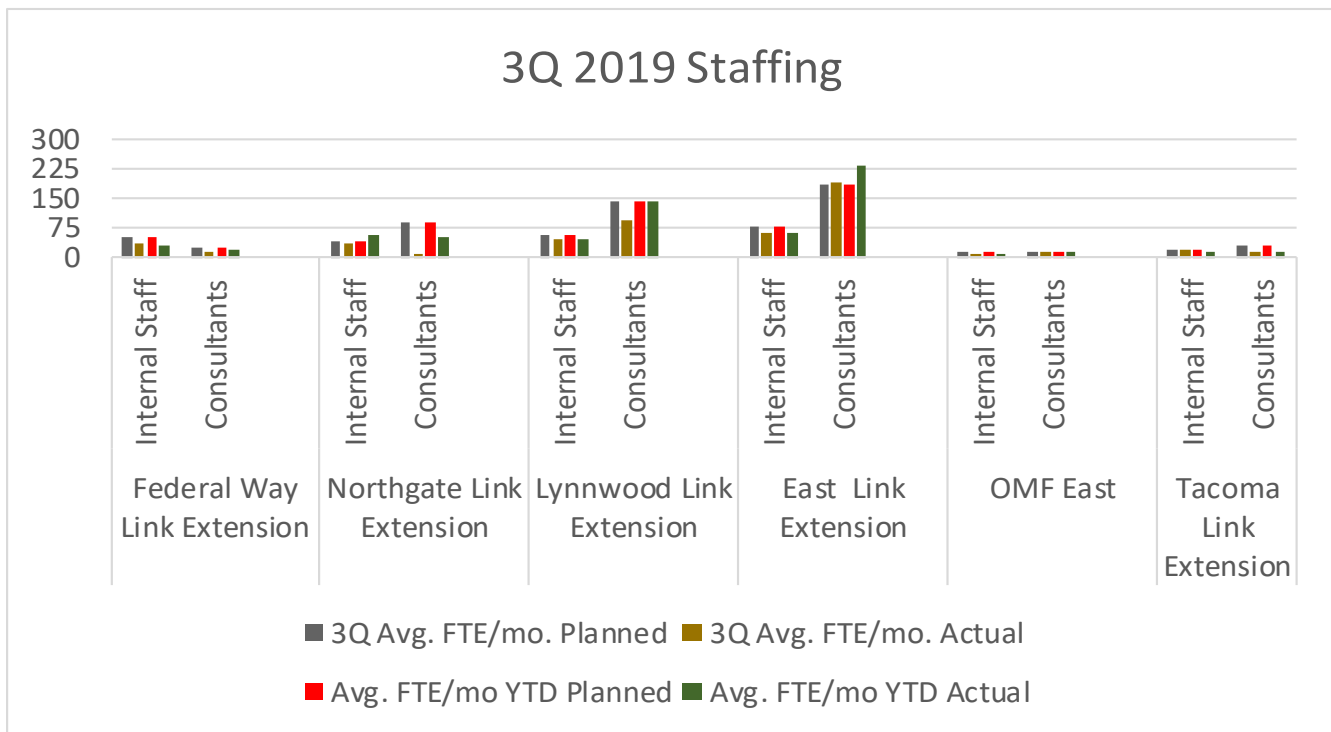
Link Light Rail Staffing Report



Staffing Variance relative to Plan

There were 208 internal and 342 consultant full time equivalents (FTE) supporting design and construction of Link light rail extensions (table below).

Project	Sound Transit Staff				Consultants				Total (AVG. YTD)			
	FTE		Variance		FTE		Variance		FTE		Variance	
	Planned	Actual	FTE	% of Plan	Planned	Actual	FTE	% of Plan	Planned	Actual	FTE	% of Plan
Federal Way Link Extension	52	37	-15	-29%	24	15	-9	-38%	76	52	-24	-32%
Northgate Link Extension	43	38	-5	-12%	90	9	-81	-90%	133	47	-86	-65%
Lynnwood Link Extension	59	45	-15	-25%	145	94	-51	-35%	204	139	-66	-32%
East Link Extension	76	63	-13	-17%	187	190	3	2%	263	253	-10	-4%
OMF East	14	8	-6	-44%	16	17	1	5%	30	25	-5	-18%
Tacoma Link Extension	22	18	-4	-19%	30	17	-13	-43%	52	35	-17	-33%
Total	267	208	-58	-22%	492	342	-150	-30%	759	550	-208	-27%



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

PE	Preliminary Engineering	UAC	Unallocated Contingency
PEP	Project Execution Plan	U-Link	University Link project
PEPD	Planning, Environment and Project Development	UDS	University District Station
PMOC	Project Management Oversight Consultant	USFWS	U.S. Fish and Wildlife Service
PSST	Pine Street Stub Tunnel	UW	University Of Washington
QA	Quality Assurance	UST	Underground Storage Tank
QC	Quality Control	UWS	University of Washington Station
QTR	Quarter	VE	Value Engineering
RE	Resident Engineer	VECP	Value Engineering Cost Proposal
RFC	Request for Change	WBS	Work Breakdown Structure
RFD	Request for Deviation	WDFW	Washington Department of Fish and Wildlife
RFI	Request for Information	WSDOT	Washington Department of Transportation
RFP	Request for Proposal		
RFQ	Request for Qualifications		
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		
SIP	Street Improvement Permitting		
SPI	Schedule Performance Index		
SR	State Route		
ST	Sound Transit		
START	Seattle Tunnel and Rail Team		
SWI	Stacy and Witbeck, Inc.		
TBM	Tunnel Boring Machine		
TCE	Temporary Construction Easement		
TE	Traction Electrification		
TFK	Traylor Frontier Kemper Joint Venture		
TOD	Transit Oriented Development		
TVM	Ticket Vending Machine		