

Progress Report

Link Light Rail Program



Northgate Station and Guideway

October | 2018



Prepared by Project Control & VE | Design, Engineering & Construction Management

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Link Light Rail Program Overview



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.

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

Federal Way Link Extension: The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center. The extension generally parallels SR 99 and I-5 freeway with stations at Kent/Des Moines, South 272nd Star Lake park-and-ride and the Federal Way Transit Center. The 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.



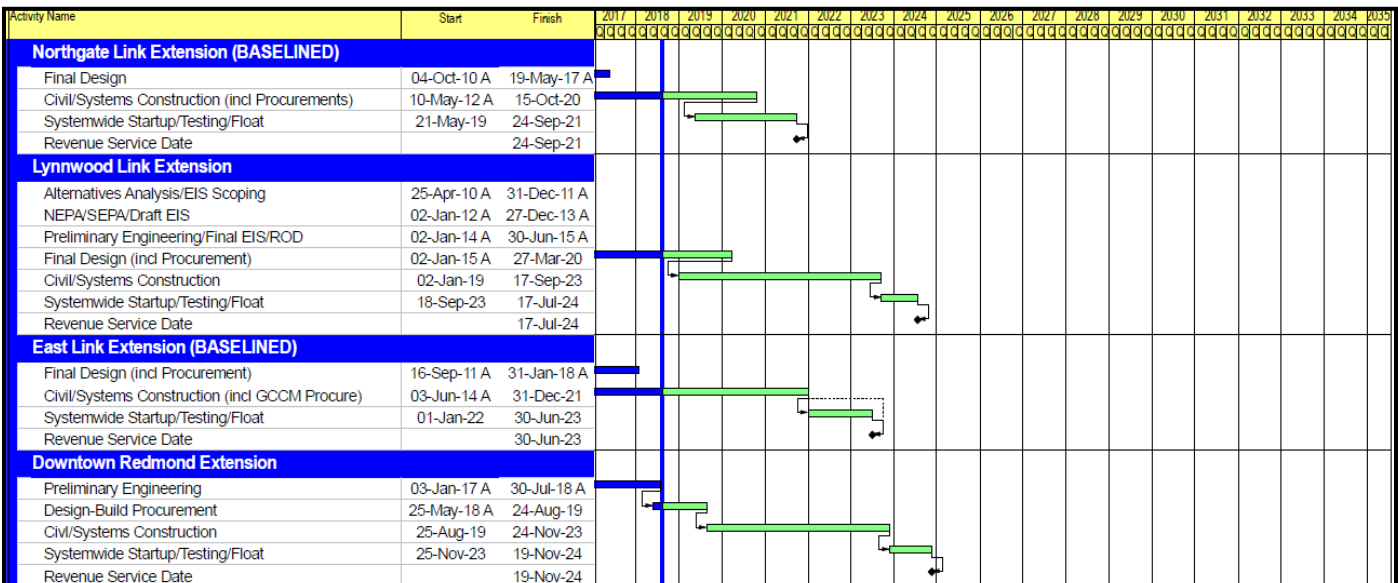
Program Budget

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	\$1,517.3	\$1,508.0	\$36.7	\$1,554.0	\$202.0
Northgate Link Extension	\$1,899.8	\$1,634.1	\$1,288.0	\$212.8	\$1,846.9	\$52.9
Lynnwood Link Extension	\$2,771.6	\$335.1	\$278.2	\$2,436.5	\$2,771.6	\$0
East Link Extension	\$3,677.2	\$3,028.8	\$1,578.7	\$648.3	\$3,677.1	\$0
Downtown Redmond Link Ext.	\$178.0	\$32.2	\$23.6	\$145.8	\$178.0	\$0
West Seattle and Ballard Link Ext.	\$285.9	\$30.4	\$21.3	\$255.5	\$285.9	\$0
South 200th Link Extension	\$383.2	\$331.5	\$328.3	\$1.2	\$332.6	\$50.6
Federal Way Link Extension	\$2,451.5	\$104.5	\$81.0	\$2,347.0	\$2,451.5	\$0
Hilltop Tacoma Link Extension	\$217.3	\$181.3	\$26.9	\$36.0	\$217.3	\$0
Tacoma Dome Link Extension	\$125.7	\$13.1	\$6.1	\$112.6	\$125.7	\$0
Link O & M Facility: East	\$449.2	\$356.7	\$174.8	\$92.5	\$449.2	\$0
LRV Fleet Expansion	\$740.7	\$655.3	\$87.0	\$85.4	\$740.7	\$0
Total Link	\$14,936.2	\$8,220.3	\$5,402.0	\$6,410.3	\$14,630.6	\$305.5

Program Schedule

Schedules for active projects are summarized below.

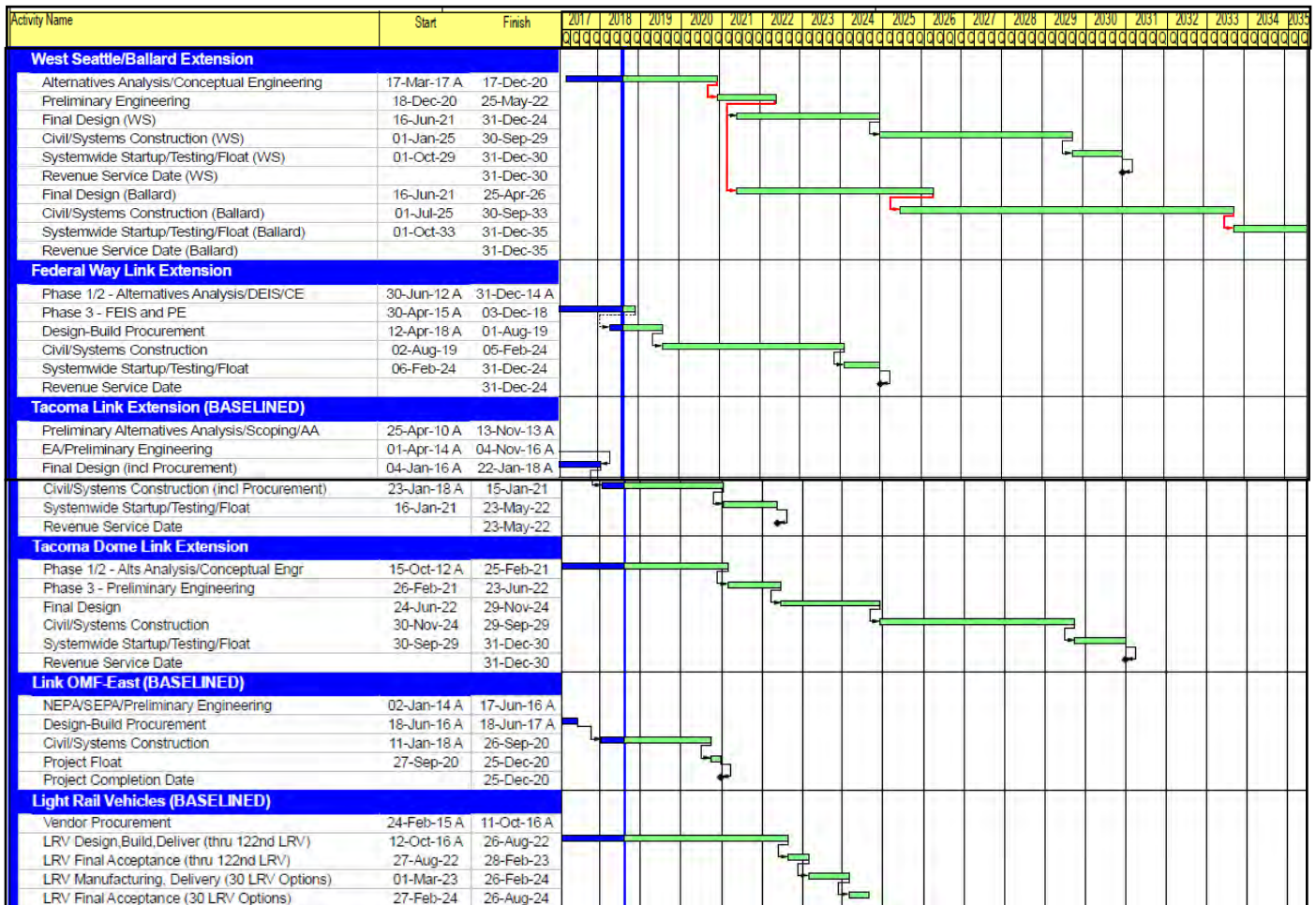


Link Light Rail Program Overview



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. C of O for stations has now been issued. Awaiting issuance of the system wide C of O for the University Link.
- Commercial issues with all prime civil contractors (with the exception of Capitol Hill Station Contractor) have been negotiated as the project proceeds through the close out process.
- Miscellaneous follow-on commitments and restoration work remains including but not limited to the following: 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 recommendation on data collection to expand the survey data to reflect more accurately the total ridership was incorporated. Study to complete by summer 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 came in at about \$280K increasing the total direct expenditure to just under about \$1.51B (Finance Cost excluded). Current activities continue 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. Systems continues optimization process with miscellaneous operational equipment purchases trailing. The Total Incurred to Date for the Construction Phase is about \$991M 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	\$115.23	\$113.55	\$83.18	\$82.47	\$88.10	\$25.45
Preliminary Engineering	\$24.39	\$24.26	\$24.26	\$24.26	\$24.26	\$0.00
Final Design	\$77.94	\$90.31	\$87.96	\$86.65	\$89.17	\$1.14
Construction Services	\$68.53	\$94.81	\$86.88	\$86.60	\$88.71	\$6.11
3rd Party Agreements	\$18.65	\$18.65	\$11.65	\$11.31	\$13.23	\$5.42
Construction	\$1,180.00	\$1,158.18	\$997.72	\$991.08	\$1,021.84	\$136.34
Vehicles	\$103.91	\$103.91	\$99.20	\$99.19	\$101.91	\$2.00
ROW	\$167.33	\$152.33	\$126.43	\$126.43	\$126.78	\$25.55
Capital Total	\$1,755.97	\$1,756.01	\$1,517.28	\$1,508.00	\$1,554.00	\$202.01
Finance Cost	\$191.71	\$191.71	\$191.71	\$174.87	\$191.71	\$0.00
Project Total	\$1,947.68	\$1,947.72	\$1,708.99	\$1,682.87	\$1,745.70	\$202.01

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

Construction commitment under the SCC format remains relatively unchanged at about \$998M. Construction SCC expenditures to date is just above \$991M this period mostly attributed to miscellaneous Systems’ optimization work and other 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) now just under \$1.51B or about 86% of total project budget scoped (Finance Cost excluded). Total project cost incurred to date at the end of this period including Finance Cost is at \$1.68B. The financing cost incurred to date is about \$175M. University Link EFC continues to be projected to close out with at least \$200M under budget excluding financing cost.

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	\$626.83	\$450.46	\$456.10	\$456.03	\$461.23	(\$10.77)
20 Stations	\$366.33	\$350.75	\$344.76	\$342.95	\$353.10	(\$2.34)
30 Support Facilities: Yards, Shops	\$7.01	\$24.83	\$23.54	\$23.46	\$24.80	\$0.03
40 Sitework & Special Conditions	\$59.03	\$67.39	\$57.37	\$54.92	\$57.12	\$10.27
50 Systems	\$69.63	\$116.42	\$102.17	\$101.80	\$102.40	\$14.02
Construction Subtotal (10 - 50)	\$1,128.82	\$1,009.85	\$983.94	\$979.16	\$998.64	\$11.21
60 Row, Land, Existing Improvements	\$167.33	\$126.60	\$126.43	\$126.43	\$125.76	\$0.84
70 Vehicles	\$99.76	\$100.16	\$99.87	\$99.87	\$100.16	\$0.00
80 Professional Services	\$306.41	\$346.58	\$306.27	\$302.26	\$317.95	\$28.63
90 Unallocated Contingency	\$53.65	\$172.81	\$0.00	\$0.00	\$11.48	\$161.33
Capital Total (10 - 90)	\$1,755.97	\$1,756.01	\$1,516.51	\$1,507.71	\$1,554.00	\$202.01
100 Finance Cost	\$191.71	\$191.71	\$191.71	\$174.87	\$191.71	\$0.00
Project Total	\$1,947.68	\$1,947.72	\$1,708.21	\$1,682.59	\$1,745.71	\$202.01

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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

- **Tunnel, Cross Passages, and Maple Leaf Portal (N125):** The Construction Management team continues to work with JCM to resolve items needed for contract closeout.
- **U District Station/UW Campus (N140):** In the north area, Hoffman continued lid level Mechanical, Electrical, Plumbing (MEP) layouts and commenced lid level upper rebar mat installation. In the central area, Hoffman continued lid level MEP installation. In the south, Hoffman completed formwork/rebar for TOD girder concrete encasement and formwork/rebar for escalator walls and placed concrete. Hoffman commenced platform level formwork and MEP; installation of the escalator steel enclosure.
- **Roosevelt Station (N150):** In the north head house, Hoffman continued installation of metal decking and Stair 3 while placing first landing. On Basement Levels 1, 2 & 3, crews continued finishing including electrical work, overhead MEP and sheetrock. In the central area crews commenced scaffolding for installation of sprinklers. In the south head house entry, crews continued installation of vent shaft structural steel. On the platform, crews continued hanging electrical panels.
- **Northgate Station (N160): Guideway Substructure/Superstructure:** Continuing to install fire suppression piping along the guardrail stations. **Station:** Crews continued setting formwork for Stair 2. **Garage:** Absher is completing stairwell handrails, guardrails, lighting fixtures with concrete and paint touch ups.
- **Trackwork (N180):** Columbia Pre Cast continues production casting of 16 Hz slabs. Stacy Witbeck continues direct fixation track installation in work area between U District Station and Roosevelt Station; continues to place track slabs at Maple Leaf Portal.
- **Environmental:** New permit applications and a mitigation plan are ready to submit for impacts to the South Water-course resulting from King County's bus layover project.

Closely Monitored Issues

- The design team reported that they are developing an initial design concept for an additional stair at N140 U District Station from the intermediate landing to the platform level. Once complete, ST will review the design with the Contractor.
- Absher Construction continues to focus on completing the Northgate parking garage with a scheduled date for opening the new garage of November 19, 2018.

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 \$1,846.9M, which is \$52.9M below the current project budget, which is unchanged since the last period. This period approximately \$28.3M was incurred, bringing the total project expenditures from \$1.26B to \$1.29B. Project commitments are at \$1.63B with all major construction projects well underway.

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	\$144.9	\$65.0	\$64.9	\$135.5	\$9.4
Preliminary Engineering	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$0.0
Final Design	\$132.2	\$132.2	\$117.0	\$113.2	\$134.7	\$(2.6)
Construction Services	\$118.3	\$118.3	\$103.1	\$75.3	\$110.4	\$7.9
3rd Party Agreements	\$11.8	\$11.8	\$9.8	\$6.7	\$12.4	\$(0.6)
Construction	\$1,343.0	\$1,343.0	\$1,223.6	\$912.4	\$1,332.9	\$10.2
ROW	\$112.3	\$112.3	\$100.5	\$100.5	\$106.0	\$6.3
Project Contingency	\$22.2	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
Total	\$1,899.8	\$1,899.8	\$1,634.1	\$1,288.0	\$1,846.9	\$52.9

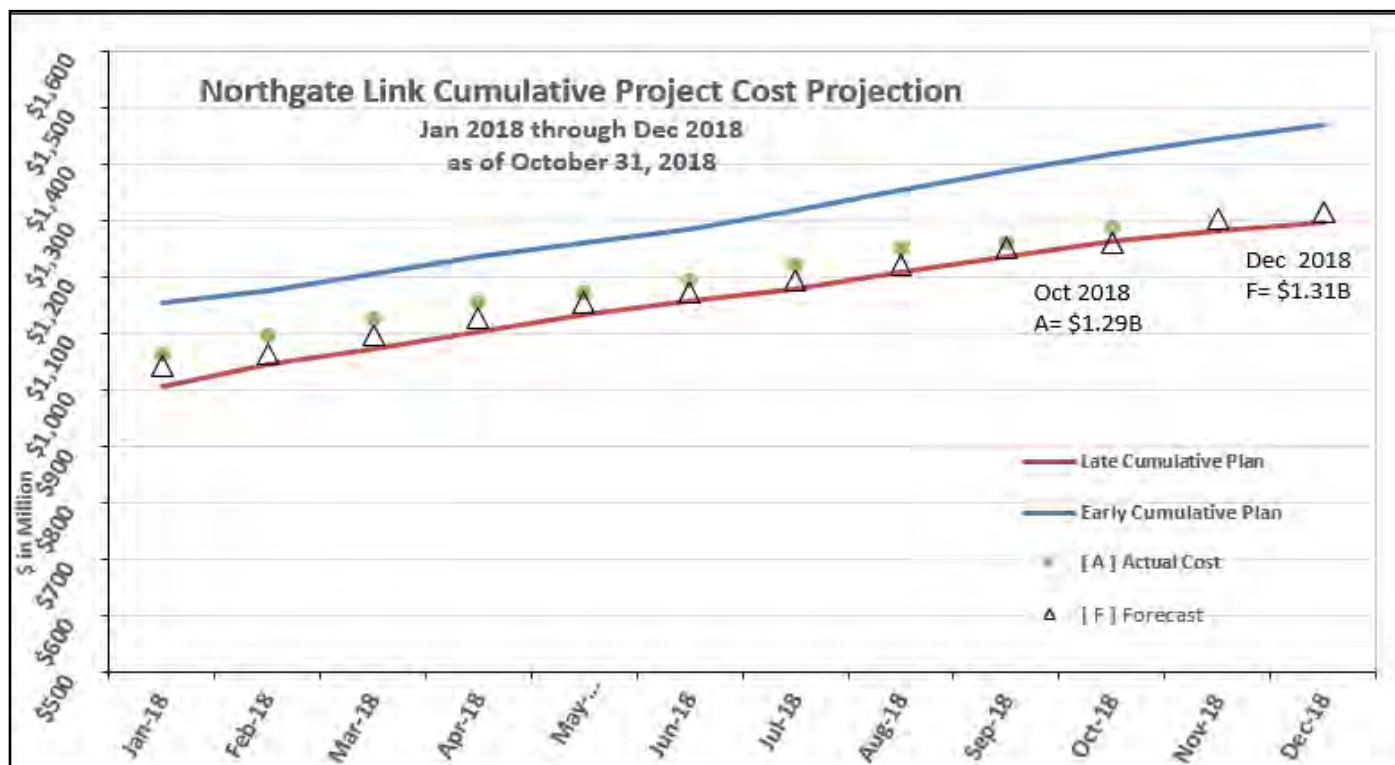
Cost Summary by SCC

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	\$549.8	\$512.5	\$480.6	\$532.6	\$17.3
20 Stations	\$376.1	\$424.1	\$420.5	\$256.6	\$447.2	\$(23.2)
30 Support Facilities: Yard, Shop	\$5.3	\$5.3	\$6.4	\$6.1	\$6.4	\$(1.2)
40 Sitework & Special Conditions	\$140.8	\$224.2	\$166.4	\$138.7	\$201.8	\$22.4
50 Systems	\$110.9	\$96.7	\$107.4	\$21.8	\$119.5	\$(22.8)
Construction Subtotal (10 - 50)	\$1,228.7	\$1,300.1	\$1,213.2	\$903.8	\$1,307.5	\$(7.5)
60 Row, Land, Existing Improvements	\$119.9	\$110.9	\$100.5	\$100.5	\$105.5	\$5.4
80 Professional Services	\$420.7	\$431.6	\$320.4	\$283.7	\$428.4	\$3.2
90 Contingency	\$130.4	\$57.2	\$0.0	\$0.0	\$5.4	\$51.8
Total (10 - 90)	\$1,899.8	\$1,899.8	\$1,634.1	\$1,288.0	\$1,846.9	\$52.9

Project Cash Flow Projection

The Northgate Link cost projection continues to progress within the planned expenditures as construction activities continue. This period's expenditure of \$28.3M included \$24.8M for the ongoing major construction contracts including the N140, N150, and N160 Station Finishes contracts, and the N180 Trackwork contract, and other miscellaneous construction; \$0.5M was incurred for civil and systems final design and design support during construction; and \$2.3M was for construction management. The remaining expenditures were for third party coordination, permits, staff, legal, right-of-way and other direct charges.

Total project cost incurred to date reached \$1.29B of which about \$912M (71%) is attributed to the Construction Phase. The project cost is currently predicted to increase to approximately \$1.3B by December 2018, 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 risk register is updated quarterly. The following remain the top project wide risks:

- Multiple contract interfaces.
- Potential shortage of skilled labor and O&M support during startup and integration testing.
- Duration uncertainties for system installation, integration, and testing.
- Coordination with third parties (City of Seattle, WSDOT, UW etc.).
- Obsolescence of interfacing systems.

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.

The current contingency drawdown is trending below the project drawdown at the end of 3rd QTR 2018. This period, AC increased by \$3.0M due to the approval of additional contingency for the Civil DSDC contract in the amount of \$3.7M, which was offset by a decrease of \$0.7M due to execution of change orders on the N125 tunnel contract, the N150 and N160 Station contracts, the N180 Trackwork contract, and the N830 Systems contract. The UAC was unchanged this period and the balance remains well above both the minimum contingency and the buffered (minimum plus 20%) 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%	\$143.7	24.5%
Unallocated Contingency	\$98.3	5.2%	\$35.0	6.0%
Total:	\$396.2	20.9%	\$178.7	30.4%

Contingency by Type

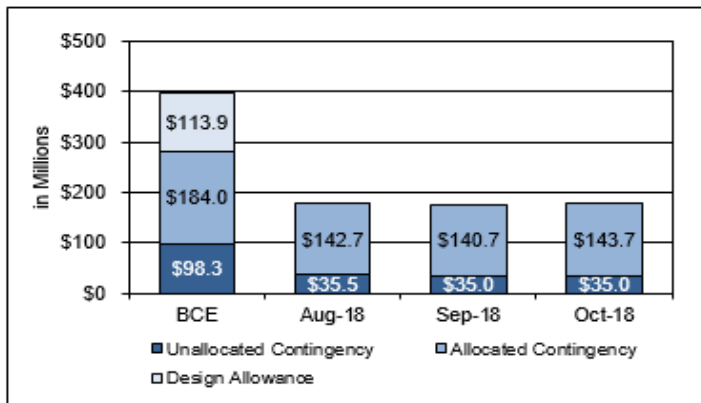
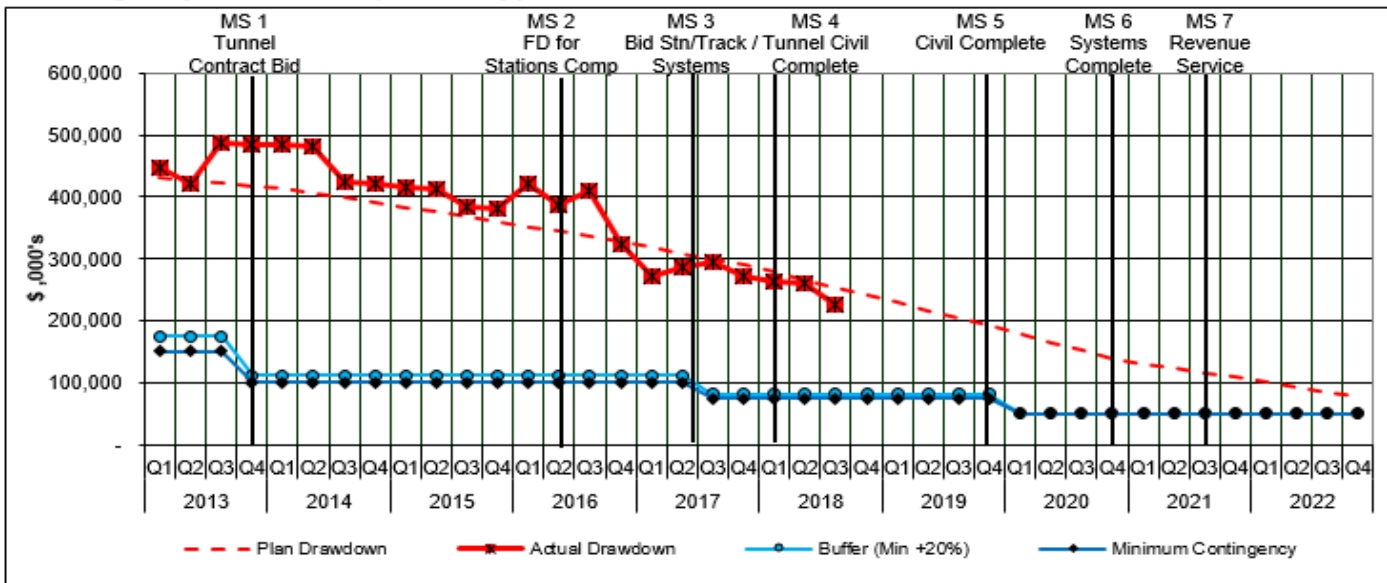


Table figures are shown in millions.

Contingency Drawdown (Quarterly)



Link Light Rail

Northgate Link Extension



Project Schedule

As of October 2018, all Northgate Link civil contracts are under construction and the calculated physical percent complete for all major construction contracts is approximately 71.5%.

The Northgate Link Extension remains on schedule for the period. Civil construction is still forecast to complete in 3rd QTR 2020. Systems construction is forecast to complete in late 4th QTR 2020.

- The N125 Tunneling Contract status is unchanged with close-out efforts continuing.
- The N140 U District Station contractor, Hoffman Construction, has completed the station lid concrete pour. CMU room construction and EMP are continuing on the lower levels. Underpinning at the Neptune Theater is underway.
- At Roosevelt Station (RVS), N150, headhouse CMU wall & steel construction is ongoing. Interior work consists of finishing the Systems Rooms, EMP and Ventilation installations. Utility installation on 67th is ongoing.
- The N160 contractor, Absher Construction is working on punchlist for Parking Garage, set to open in mid-November. On the guideway, railing, OCS foundation, and systems conduits are ongoing. Platform canopy and station structural work is also ongoing, and stair installations are underway.
- The N180 Trackwork contractor, Stacy & Witbeck, is completing punchlist items between UWS to RVS. Rail installation continues to be focused in the tunnels between UDS and RVS. At MLP, the forming and pouring for the stair tower walls is ongoing. Track slab pours at MLP have begun.
- The N830/E750 Systems Contractor, Mass Electric (MEC), is continuing engineering and procurement work for signals and communications and OCS. EMI cable installation in the tunnel is complete. MEC crews are working on testing the N160 crews in the Northgate Station Parking Garage.
- Revenue Service date for Northgate Link Extension is scheduled in September 2021.

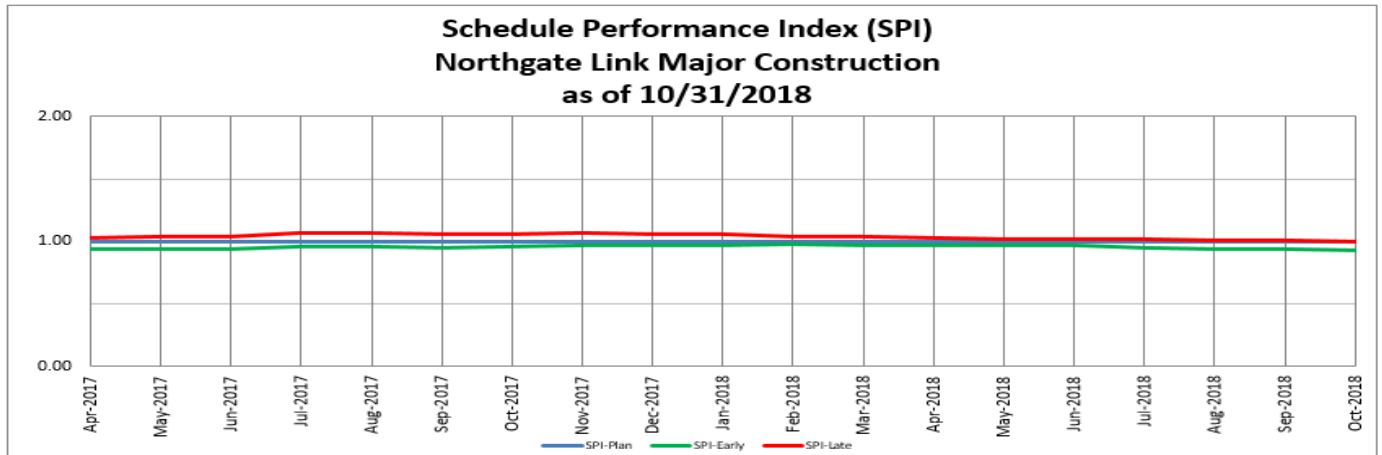
Activity Name	Start	Finish	2015		2016		2017		2018		2019		2020		2021	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Northgate Link Extension Master Schedule - V12c	24-Dec-10 A	28-Sep-21														
Final Design	24-Dec-10 A	04-Nov-16 A														
Construction	01-Aug-12 A	18-Feb-21														
N105 Advanced Demolition & Site Prep - DBB	04-Aug-14 A	28-Nov-16 A														
N110 Construction Advanced Utility Relocation - DBB	06-Mar-13 A	28-May-13 A														
N111 Advance Utility Relocation, Northgate Area - DBB	17-Feb-14 A	22-Jun-16 A														
N112 Advanced Demolition & Site Prep, U District & Roosevelt - DBB	01-Aug-12 A	31-Aug-13 A														
N113 115kV Relocation at Northgate - DBB	31-May-16 A	21-Feb-17 A														
N125 TBM Tunnels (UW Station to Maple Leaf Portal) - DBB	30-Sep-13 A	13-Mar-18 A														
N140 U District Station Finishes - GC/CM	07-Apr-17 A	20-Feb-20														
N150 Roosevelt Station Finishes - GC/CM	02-Dec-16 A	11-Sep-19														
N160 Northgate Station and Elevated Guideway - DBB	02-Sep-16 A	09-Mar-20														
N180 Trackwork - DBB	25-Aug-16 A	31-Oct-19														
N830 Traction Electrification, Signal & Communications - GC/CM	12-Jun-17 A	08-Jan-21														
Vibration & EMI Testing	04-Aug-17 A	18-Feb-21														
Testing & Startup	01-Oct-18 A	28-Dec-20														
Level 1 - Local Testing (Civil)	01-Oct-18 A	20-Feb-20														
Testing & Commissioning	22-Jun-20	28-Dec-20														
Project Float	26-Apr-21	26-Sep-21														
Project Float & Revenue Service	26-Apr-21	26-Sep-21														
Program Wide Float (CD)	26-Apr-21	26-Sep-21														
Northgate Link Complete - Revenue Service Begins		26-Sep-21														

Link Light Rail Northgate Link Extension



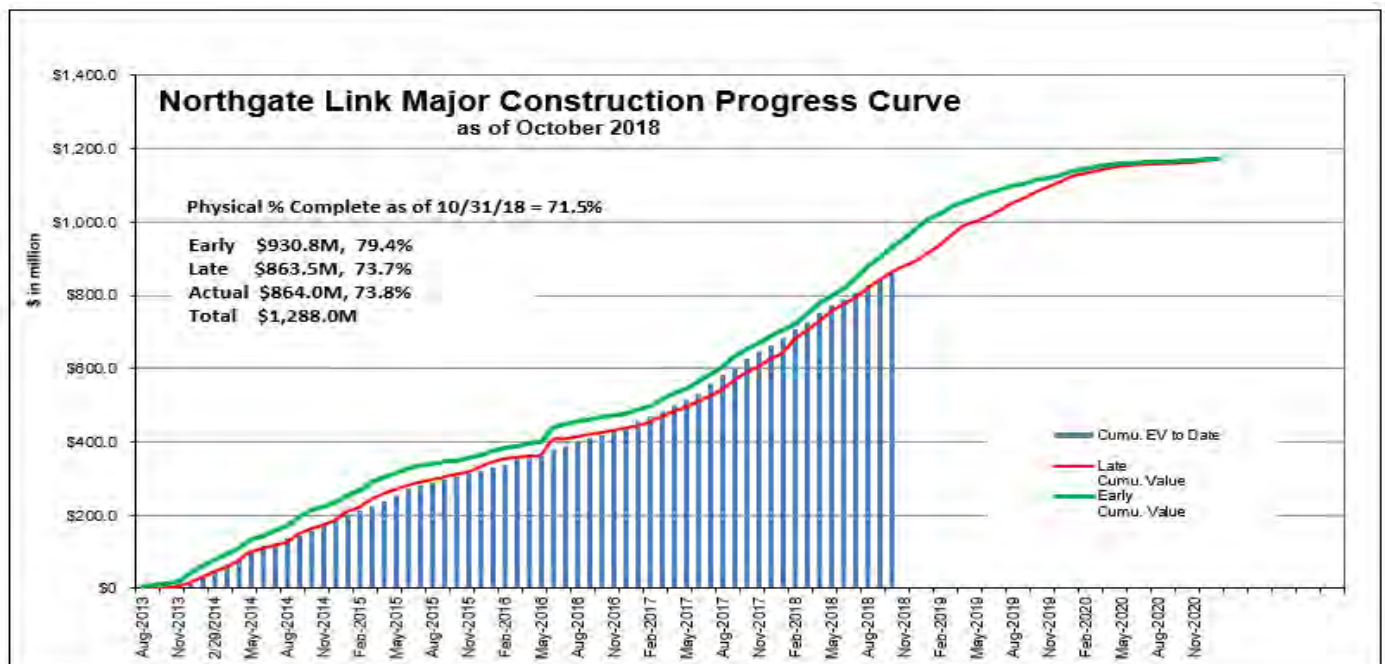
Schedule Performance Index

The early Schedule Performance Index (SPI) for the project is at 0.93 for this period. The late SPI is at 1.00 showing that in general, performance is satisfactory. The early and late numbers have been trending within a range of 0.04 above or below the current period numbers for several months.



Cost Progress Analysis

All civil work in the tunnels is complete and all three station finishes contracts and trackwork are well underway. Systems procurement continues for signals and communications, installation for the garage is complete and punchlist inspection held, and EMI cable in the tunnels is complete. 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 appropriately between the early/late projections as drawn from the master schedule. The overall physical percent complete for Northgate Link construction is approximately 71.5% as compared to approximately 69% of contractual duration expended.



Community Outreach

University District Station (N140)

- Met with City of Seattle Department of Transportation (SDOT) to discuss the NE 43rd Street improvements project.
- Met with key stakeholders and affected businesses along University Way NE with SDOT to discuss future NE 43rd street improvement project.
- Conducted weekly check in with the affected businesses along University Way NE.
- Distributed construction alert for concrete pour at U District Station site.

Roosevelt Station (N150)

- Attended the Transportation Choices forum on Transit Talks. A panel was set up of different representatives from various agencies including Sound Transit. There were approximately 66 people in attendance from the Roosevelt Neighborhood.

Northgate Station (N160)

- Attended Permit Parking Interagency Coordination meeting (Sound Transit and KCM).
- Updated and distributed Permit and Outreach Communications plan for Northgate garage opening.
- Finalized Signage Plan for lot closure / garage opening at Northgate. Communicated with Metro and PEPD.
- Distributed night-time closure alert for NE 103rd St. for 10/4 – 10/5 through Northgate Station GovDelivery email list and emailed to key community stakeholders.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Construction Safety

Data/ Measure	October 2018	Year to Date	Project to Date
Recordable Injury/Illness Cases	4	23	102
Days Away From Work Cases	0	0	6
Total Days Away From Work	0	0	397
First Aid Cases	1	46	143
Reported Near Mishaps	2	32	116
Average Number of Employees on Worksite	414	-	-
Total # of Hours (GC & Subs)	98,851	971,108	3,879,241
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	8.09	4.74	5.26
Lost Time Injury (LTI) Rate	0.00	0.00	0.31
Recordable National Average	3.20	3.20	3.20
LTI National Average	1.30	1.30	1.30
Recordable WA State Average	6.40	6.40	6.40
LTI WA State Average	2.10	2.10	2.10

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

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.



N180 — Crew cleaning debris off rail.

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Contract N125 – TBM Tunnels

Close-out Progress

The N125 Contractor, JCM, was issued Substantial Completion on March 13, 2018. Punchlist and safety critical items have been completed and warranty period is in place for the tunnels. JCM is working to complete final project documentation. The final Non-Conformance Report (NCR) received Engineer of Record (EOR) approval and is with the Safety and Quality Assurance group for review and closure.

Ramp restoration will be completed by Seattle Department of Transportation (SDOT) and a credit negotiated with the contractor in conjunction with the last remaining open contractor cost issues/claims.

No further updates will be made on this contract.

Next Period's Activities

- Continue finalizing remaining change orders.
- Mediation is scheduled in late-November to review EICON claims with JCM.

Closely Monitored Issues

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

Cost Summary

Present Financial Status	Amount
N125 Contractor - JCM Northlink	
Original Contract Value	\$ 440,321,000
Change Order Value	\$ 60,697,734
Current Contract Value	\$ 501,018,734
Total Actual Cost (Incurred to Date)	\$ 497,721,033
% Authorized Billed-to-Date	99.3%
Physical Percent Complete	100.0%
Authorized Contingency	\$ 66,048,150
Contingency Drawdown	\$ 60,697,734
Contingency Index	1.1

Contract N140—U District Station Finishes

Current Progress

The N140 Contractor, Hoffman Construction, is continuing structural work below and above grade as well as MEP work below grade.

- Completed the concrete pour for the North Lid at BL1.
- Completed North CMU block installation from BL3 to BL2.
- Resumed elevator 1 wall rebar and formwork installation.
- Commenced installation of 8-inch track drain piping, GL0 to GL1.6.
- Completed installation and welding of BL3 EVS dampers.

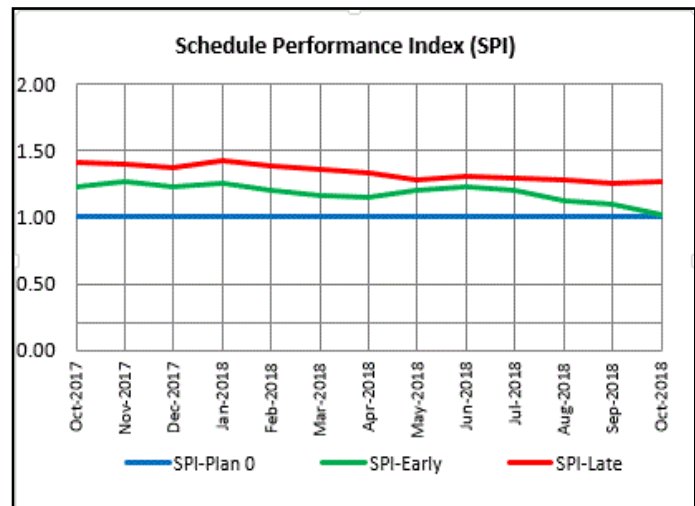
Schedule Summary

The schedule update for October 2018 indicates the project shows a seven day improvement in the Substantial Completion, and remains ahead of the contract end date. The critical path for the project is unchanged in the North Headhouse then Commissioning.

Activity Name	OD	RD	Start	Finish	2017				2018				2019				2020			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1			
N140 - U-District Station Finishes	759	330	10-Feb-17 A	20-Feb-20	[Gantt Bar]															
MILESTONES	0	0	20-Feb-20	20-Feb-20	[Gantt Bar]															
Milestone 4 - Substantial Completion	0	0		20-Feb-20*	[Gantt Bar]															
PRECONSTRUCTION	0	0	17-Jul-17 A	17-Jul-17 A	[Gantt Bar]															
Precon - Site Access Granted (Construction NTP)	0	0	17-Jul-17 A		[Gantt Bar]															
CONSTRUCTION	759	330	10-Feb-17 A	20-Feb-20	[Gantt Bar]															
Structure	685	256	10-Feb-17 A	04-Nov-19	[Gantt Bar]															
EXTERIOR SHELL / SKIN	131	131	18-Dec-18	21-Jun-19	[Gantt Bar]															
INTERIORS	372	300	23-Jul-18 A	09-Jan-20	[Gantt Bar]															
ELEVATORS	185	185	26-Feb-19	15-Nov-19	[Gantt Bar]															
ESCALATORS	353	257	18-Jun-18 A	05-Nov-19	[Gantt Bar]															
STAIRS	330	208	10-May-18 A	27-Aug-19	[Gantt Bar]															
SITWORK	342	219	18-Jun-18 A	21-Oct-19	[Gantt Bar]															
START-UP & COMMISSIONING	206	206	30-Apr-19	20-Feb-20	[Gantt Bar]															

Schedule Performance Index

This period, the SPI early is at 1.01 and the SPI late is 1.27. The early index indicates that the contractor continues to perform slightly ahead of plan when compared to the baseline schedule and cash flow and is expected to trend the same way next period.



Next Period's Activities

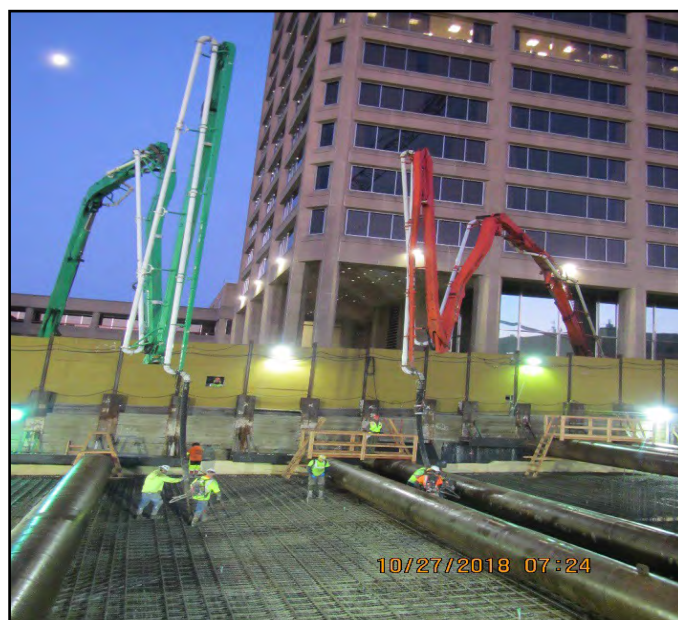
- Complete Construction Masonry Unit (CMU) wall installations at the platform level to north basement level 3.
- Cure lid level concrete slab in the north and central areas.
- Commence removal of cross lot bracing struts.
- Continue installation of CM wall seismic restraints, basement level 3 to basement level 2.
- Commence fire caulking CMU walls basement level 3 to basement level 2.
- Complete platform basement level 3 stairway installations.
- Commence TOD pile cap rebar and formwork installations.
- Continue underpinning of Neptune Theater.
- Complete formwork for elevator 1 walls, place concrete.
- Complete formwork, rebar and Mechanical, Electrical, and Plumbing (MEP) rough in for stepped mat east entry area, place concrete.

Closely Monitored Issues

- The initial design concept for the additional stairs from the street level to the platform level was completed and distributed to the Contractor and Sound Transit for review and comment this month. The design team is now in the Design Development (DD) phase and the 60% DD submittal is due next month..
- The Contractor has provided notification regarding the cost and time impacts for CN-WD 044A due to the additional stem walls and related work at the north end. The CM met with the Contractors, and Design Team to identify and resolve these issues. The Contractor has submitted RFIs to confirm the information that is needed. Once a response is received, ST will be working with the Contractor on possible mitigation measures due to the schedule critical nature of this scope of work.

Cost Summary

Present Financial Status	Amount
N140 Contractor—Hoffman Construction	
Original Contract Value	\$ 159,836,688
Change Order Value	\$ 848,340
Current Contract Value	\$ 160,685,028
Total Actual Cost (Incurred to Date)	\$ 69,654,343
Financial Percent Complete	43.3%
Physical Percent Complete	38.8%
Authorized Contingency	\$ 7,991,834
Contingency Drawdown	\$ 848,340
Contingency Index	3.7



UDS – Central Area Lid Concrete Placement

Contract N150—Roosevelt Station Finishes

Current Progress

Hoffman Construction (HCC) is continuing structural work at the North and South Headhouses. Concrete Masonry Unit (CMU) block installation at the Headhouses continues. Mechanical, Electrical, and Plumbing (MEP) continues throughout the station below grade. Major accomplishments this period include:

- Completed south basement level 3 rooms.
- Commenced installation of bottom section of escalators 1 & 2 in center area..
- Placed concrete over metal deck at Clerestory C and roof level at north head house.
- Continued utility work on 67th Street.

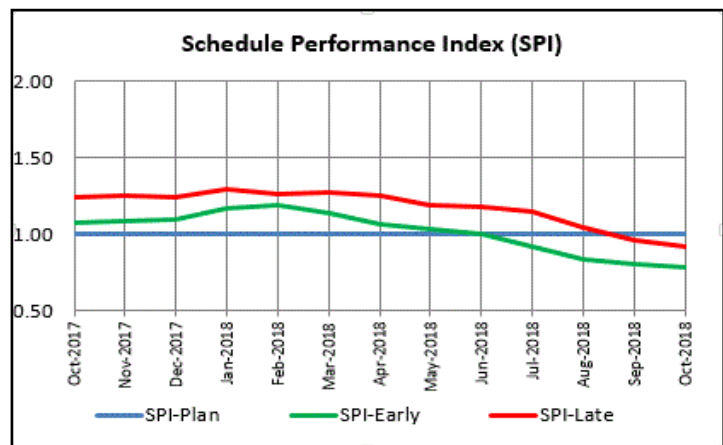
Schedule Summary

The N150 October schedule update forecasts a six day early Substantial Completion date. The critical path is still driven by South Headhouse structure. Hoffman has improved the Civil/Systems interface float for the below grade systems access, avoiding potential adverse impacts.

Activity Name	OD	RD	Start	Finish	2017				2018				2019							
					Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
N150 - Roosevelt Station Finishes	704	218	02-Dec-16 A	11-Sep-19	[Gantt Chart showing activity bars across quarters]															
MILESTONES	0	0	11-Sep-19	11-Sep-19	[Gantt Chart showing milestone points]															
MILESTONE 3 - SUBSTANTIAL COMPLETION OF ALL WORK	0	0		11-Sep-19*	[Gantt Chart showing milestone point]															
PRECONSTRUCTION	0	0	02-Dec-16 A	02-Dec-16 A	[Gantt Chart showing preconstruction bars]															
ISSUE CONSTRUCTION NTP	0	0		02-Dec-16 A	[Gantt Chart showing preconstruction bar]															
CONSTRUCTION	656	218	13-Feb-17 A	11-Sep-19	[Gantt Chart showing construction bars]															
MOBILIZATION	588	120	13-Feb-17 A	05-Jun-19	[Gantt Chart showing mobilization bar]															
STRUCTURE	608	170	13-Feb-17 A	03-Jul-19	[Gantt Chart showing structure bar]															
INTERIORS	345	189	23-Mar-18 A	31-Jul-19	[Gantt Chart showing interiors bar]															
HEADHOUSE	356	198	21-Mar-18 A	13-Aug-19	[Gantt Chart showing headhouse bar]															
BUS SHELTER	30	30	05-Feb-19	18-Mar-19	[Gantt Chart showing bus shelter bar]															
BIKE CAGE	13	13	20-Feb-19	08-Mar-19	[Gantt Chart showing bike cage bar]															
ELEVATORS	126	126	11-Dec-18	10-Jun-19	[Gantt Chart showing elevators bar]															
ESCALATORS	130	130	03-Dec-18	05-Jun-19	[Gantt Chart showing escalators bar]															
STAIRS	131	89	04-Sep-18 A	11-Mar-19	[Gantt Chart showing stairs bar]															
CP-31	276	55	19-Feb-18 A	20-Mar-19	[Gantt Chart showing CP-31 bar]															
CONSTRUCTION ACCESS INFILL	68	68	06-Jun-19	11-Sep-19	[Gantt Chart showing construction access infill bar]															
START-UP & COMMISSIONING	188	188	17-Dec-18	11-Sep-19	[Gantt Chart showing start-up & commissioning bar]															
SITE RESTORATION	295	192	07-Jun-18 A	05-Aug-19	[Gantt Chart showing site restoration bar]															
ARTWORK	192	87	15-Aug-18 A	16-May-19	[Gantt Chart showing artwork bar]															
CLOSEOUT	93	93	10-Apr-19	20-Aug-19	[Gantt Chart showing closeout bar]															
N830 TRACTION ELECTRIFICATION, SIGNALS, C	40	40	01-Nov-18	31-Dec-18	[Gantt Chart showing traction electrification bar]															

Schedule Performance Index

This period, the SPI early is at 0.79 and the SPI late is at 0.92. The early index suggests that the contractor is performing slightly behind plan when compared to the baseline schedule as it was last period. However, with the delivery and installation of the escalators, the SPI is anticipated that the SPI will trend closer 1.0 next month.



Next Period's Activities

- Continue steel erection of brace frames and clerestory columns at north head house.
- Continue north basement level 3 finishes including overhead Mechanical, Electrical, and Plumbing (MEP) work and installation of drywall.
- Continue north platform finishes including ceiling insulation, overhead MEP and sprinkler work.
- Complete south platform finishes work including overhead MEP, fire sprinkler rough-in and installation of drywall.
- Continue installation of mechanical chase ductwork at north basement level 2 and south basement level 2.
- Continue installation of SCL duct bank along 67th Street and 12th Ave.
- Commence installation of electrical panels in north platform rooms.
- Continue framing roof parapets all levels at south entry.
- Continue painting of GWB and installation doors at north and south platform rooms, south basement systems, rooms, and exposed structural steel at south entry.

Closely Monitored Issues

- Design continues to focus on responding to overdue Requests for Information (RFIs) and urgent submittals. Design lead is aware and is working with to remedy this situation.
- Design has caught up with the final drawings and specifications for pending change orders and will continue to track these items for on-time processing of future change orders.

Cost Summary

Present Financial Status	Amount
N150 Contractor - Hoffman Construction	
Original Contract Value	\$ 152,291,184
Change Order Value	\$ 4,119,113
Current Contract Value	\$ 156,410,297
Total Actual Cost (Incurred to Date)	\$ 98,175,725
Financial Percent Complete	62.8%
Physical Percent Complete	57%
Authorized Contingency	\$ 7,614,559
Contingency Drawdown	\$ 4,119,113
Contingency Index	1.1



Roosevelt Station — View of North Headhouse N.

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

Current Progress

The N160 Contractor, Absher Construction, is nearing completion of the Parking Garage with punchlist work underway. Guideway finishes are underway, and work on the station continues to progress. Accomplishments to date:

- Began installation of systems conduit on Guideway.
- Continued forming of Stairway #1 over 103rd.
- Begin wall forming for Escalator 2/Stair 3.
- Erecting Station columns, beams and cross bracing steel for roof structure.
- Installed drain piping from FC-6 thru adjacent gabion wall baskets.
- Punchlist and Clean-up Garage Levels, complete lighting fixtures and paint touch-ups.

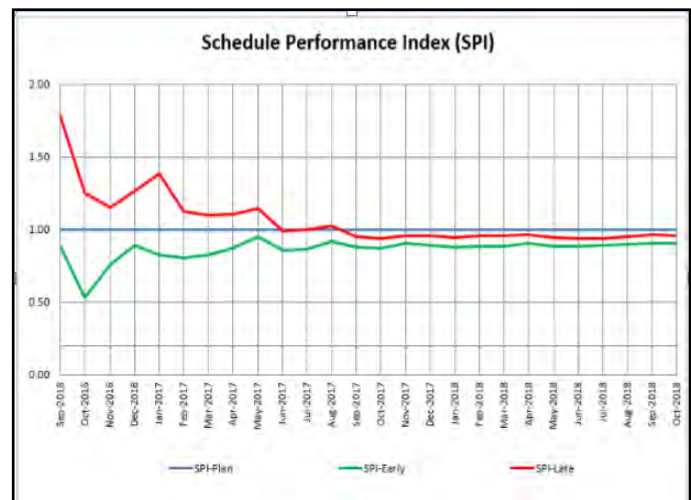
Schedule Summary

The project schedule for October slipped Milestone (MS)-03a from 10/24 to 11/5. The primary driver in the garage is the electrical installations and punchlist items. Milestones 1, 5, and 8 have negative float, but are not impacting other contracts. The critical path for the project remains the station structure & station finishes, in particular the installation of vertical transportation (escalators and stairs).

Activity Name	OD	RD	Start	Finish	2017	2018	2019	2020								
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
N160 - Northgate Station Finishes	892	340	01-Sep-16 A	09-Mar-20	[Gantt bar spanning from Sep-16 to Mar-20]											
1.00 - General Requirements	888	0	01-Sep-16 A	09-Mar-20	[Gantt bar spanning from Sep-16 to Mar-20]											
1.10 - Project Start-up	0	0	01-Sep-16 A	01-Sep-16 A	[Gantt bar spanning from Sep-16 to Sep-16]											
Contract Award/NTP (See Site Access Dates)	0	0	01-Sep-16 A		[Gantt bar spanning from Sep-16 to Sep-16]											
1.20 - Contractual Milestones	0	0	09-Mar-20	09-Mar-20	[Gantt bar spanning from Mar-20 to Mar-20]											
Absher Contract Milestones	0	0	09-Mar-20	09-Mar-20	[Gantt bar spanning from Mar-20 to Mar-20]											
MS08 - Substantial Completion [Site Access +1201d; 10/17/16, then by 1/30/20] revised to 3/01/20	0	0		09-Mar-20*	[Gantt bar spanning from Mar-20 to Mar-20]											
2.00 - Procurement	778	231	02-Sep-16 A	01-Oct-19	[Gantt bar spanning from Sep-16 to Oct-19]											
3.00 - Preparatory Work	861	340	17-Oct-16 A	09-Mar-20	[Gantt bar spanning from Oct-16 to Mar-20]											
4.00 - Earthwork & Utilities	803	340	04-Jan-17 A	09-Mar-20	[Gantt bar spanning from Jan-17 to Mar-20]											
5.00 - Guideway (inc. Station Unit)	514	36	03-Jan-17 A	24-Dec-18	[Gantt bar spanning from Jan-17 to Dec-18]											
6.00 - Station Finishes	444	290	27-Mar-18 A	26-Dec-19	[Gantt bar spanning from Mar-18 to Dec-19]											
7.00 - Garage	364	22	27-Jun-17 A	04-Dec-18	[Gantt bar spanning from Jun-17 to Dec-18]											
8.00 - At-Grade Restoration	580	299	22-Sep-17 A	09-Jan-20	[Gantt bar spanning from Sep-17 to Jan-20]											
9.00 - Transition to Operations	5	5	26-Dec-18	02-Jan-19	[Gantt bar spanning from Dec-18 to Jan-19]											
10.00 - Project Close-out	76	76	18-Nov-19	09-Mar-20	[Gantt bar spanning from Nov-19 to Mar-20]											

Schedule Performance Index

This period, the SPI early is at 0.91 (unchanged from last month), and the SPI late is at 0.96 (unchanged from last month). The early index indicates that the contractor continues performing slightly behind plan when compared to the baseline schedule. The SPI is unchanged since the last period, and overall work progress has remained within 0.03 of its current trend over the last year.



Next Period's Activities

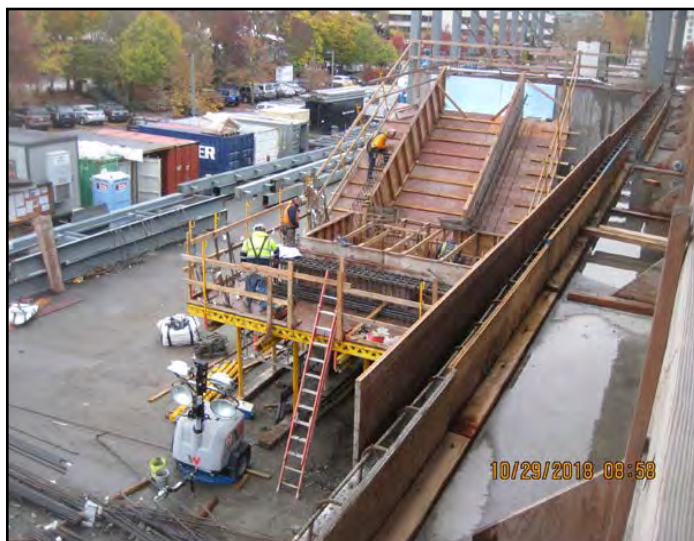
- **General Project Progress:** Continue processing and reviewing of submittals and RFIs. Continue CIP meetings with N830. Hold regular Transition to Ops meetings for Garage handover.
- **Guideway Substructure/Superstructure:** Continue permanent guardrail installations and layout and installation of emergency walkways. Continue welding braces and installation of fire suppression piping. Continue plinth rebar corrections and punchlist repairs for concrete.
- **Station:** Continue MSE backfill and rock gabions. Continue steel erection at Elevator 2 and station roof. Continue escalator reinforcing at units 1, 2, and 3.
- **Parking Garage:** Continue rebar placement for new SPG steps. Complete painting touch up in all locations and complete punchlist items. Install temporary protective measures to meet safety checklist requirements. Install new breakers and fire alarm signage as required after inspections. Conduct final TCO inspections with the City.
- **Utility & Drainage Work:** Continue MSE retaining walls.

Closely Monitored Issues

- Schedule slippage continues on elevated structure.
- Guideway deck grades and plinth bar locations have been surveyed by N180 – awaiting results to ensure grades accepted.
- Garage set to open November 19, 2018. Punchlist and Safety Certification process being tracked daily to ensure smooth transition to ST Operations.

Cost Summary

Present Financial Status	Amount
N160 Contractor - Absher Construction	
Original Contract Value	\$ 174,000,000
Change Order Value	\$ 6,356,187
Current Contract Value	\$ 180,356,187
Total Actual Cost (Incurred to Date)	\$ 127,676,799
Financial Percent Complete	70.8%
Physical Percent Complete	69.1%
Authorized Contingency	\$ 17,400,000
Contingency Drawdown	\$ 6,356,187
Contingency Index	1.9



Rebar installation at Stair 2 at Northgate Station.

Contract N180 – Trackwork UWS to Northgate Station

Current Progress

The N180 Contractor, Stacy and Witbeck, Inc. (SWI) continues to prosecute the work as follows:

- CPP continues production of 16Hz floating slabs casting 12 slabs each week.
- Crews continued construction of DF plinths: SBT is complete to STA 1299+24, NBT is complete to STA 1297.
- At the MLP Stair Tower: crews poured column concrete and will continue erecting Level 2 wall forms.
- Crews continued forming and constructing at-grade track slab at MLP.
- Crews completed drilling, setting, and pouring OCS foundations at MLP.

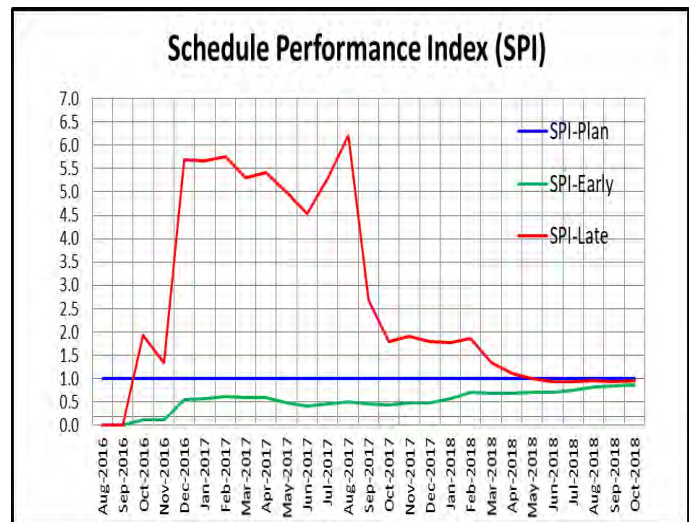
Schedule Summary

The N180 schedule for October continues to forecast an on-time completion of work. The critical path continues to run through the construction of the plinths within the tunnels and is crew driven.

Activity Name	OD	RD	Start	Finish	16	2017				2018				2019						
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
N180 - Trackwork	801	250	25-Aug-16 A	31-Oct-19	[Gantt chart bars for N180 - Trackwork]															
Milestones	0	0	31-Oct-19	31-Oct-19	[Gantt chart bars for Milestones]															
Milestone 7d - Substantial Completion of Work Area 7. 7.1, 7.2 (10/31/19)	0	0		31-Oct-19*	[Gantt chart bars for Milestone 7d]															
Construction	780	229	25-Aug-16 A	02-Oct-19	[Gantt chart bars for Construction]															
Mobilization	671	229	25-Aug-16 A	02-Oct-19	[Gantt chart bars for Mobilization]															
Submittals	1072	275	25-Aug-16 A	02-Aug-19	[Gantt chart bars for Submittals]															
Procurement	587	188	07-Oct-16 A	05-Aug-19	[Gantt chart bars for Procurement]															
Work Area 1 (N06 - UWS to UDStunnels)	230	0	13-Nov-17 A	09-Oct-18 A	[Gantt chart bars for Work Area 1]															
Work Area 2.1 and 2.2 (N07 - U-District Station)	309	61	15-Dec-17 A	04-Feb-19	[Gantt chart bars for Work Area 2.1 and 2.2]															
Work Area 3 (N08 - UDS to RVS Tunnels)	213	36	05-Feb-18 A	26-Dec-18	[Gantt chart bars for Work Area 3]															
Work Area 4 (N09 - Roosevelt Station)	178	15	19-Mar-18 A	02-Jan-19	[Gantt chart bars for Work Area 4]															
Work Area 5 (N10 - RVS to MLP Tunnels)	303	153	28-Feb-18 A	15-Jun-19	[Gantt chart bars for Work Area 5]															
Work Area 6 (MLP and At Grade Guideway)	340	190	19-Mar-18 A	07-Aug-19	[Gantt chart bars for Work Area 6]															
Work Area 7 (Elevated Guideway South of NGS)	142	142	03-Dec-18	27-Jun-19	[Gantt chart bars for Work Area 7]															
Work Area 7.1 (N11 - Northgate Station)	78	78	02-Jan-19	22-Apr-19	[Gantt chart bars for Work Area 7.1]															
Work Area 7.2 (Elevated Guideway North of NGS)	117	117	02-Jan-19	17-Jun-19	[Gantt chart bars for Work Area 7.2]															

Schedule Performance Index

The contractor’s performance has fallen below the late schedule SPI 0.97 and behind the early schedule SPI 0.86. Performance in between the curves is normally what is expected. Due to late access to the tunnel, the contractor is behind the baselined schedule, but continues to meet their goals for early work such as material procurement and fabrications. Work performed in the field has to date met or exceeded forecasts.



Next Period's Activities

- Work Area 1 punchlist activities.
- Work Area 3 DF Track Construction in North Bound & South Bound tunnels continuing.
- Work Area 5.1 preparation for relocation/removal of existing temporary electrical feeds.
- Work Area 6 Maple Leaf Portal stair tower level 2 walls.
- Continued track slab construction at Maple Leaf Portal face.
- Work Area 6 OCS Foundations.
- Work Area 6 acoustical barrier foundation wall footing
- Work Area 6 transition approach slab

Closely Monitored Issues

- The most notable monitored issue going forward appears to be the Direct Fixation track construction in work areas 3 and 5. There is a lot of work to be completed and due to the logistics of tunnel construction, it is solely dependent on the production rate of the crew as they make their way north toward Maple Leaf Portal. This will be tracked and adjustments will be made in the coming months in order to ensure continued schedule successes.
- Work Area 6 work is going to present difficulties due to the tightness of the work area and maintaining access to the tunnels during construction. Work Areas 7, 7.1 & 7.2 will present challenges of building track on a bridge deck with added complexity of staging concrete pours from below.

Cost Summary

Present Financial Status	Amount
N180 Contractor—Stacy & Witbeck	
Original Contract Value	\$ 71,455,950
Change Order Value	\$ 2,869,383
Current Contract Value	\$ 74,325,333
Total Actual Cost (Incurred to Date)	\$ 49,887,648
Financial Percent Complete	67.1%
Physical Percent Complete	75.7%
Authorized Contingency	\$ 10,718,393
Contingency Drawdown	\$ 2,869,383
Contingency Index	2.51



16Hz Floating Slabs from Columbia Precast Products LLC.

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

Current Progress

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

- Prepare OCS Bid Package for release in early November.
- Continue to support punchlist and acceptance items in preparation for a mid-November opening.
- Continue to provide Northgate Garage test documentation.

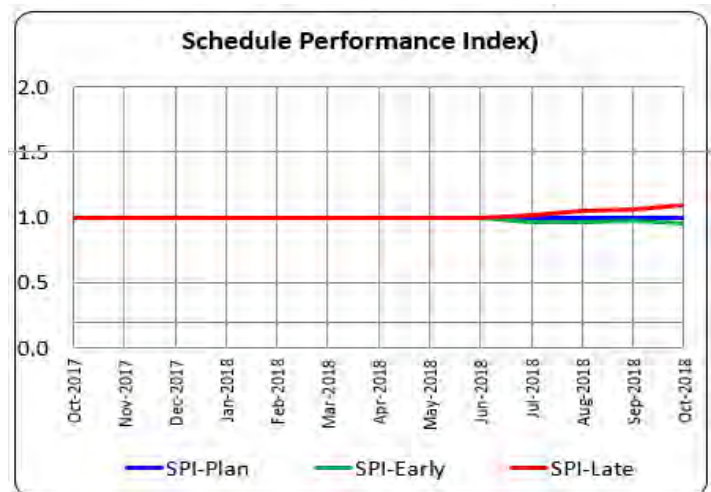
Schedule Summary

The N830 contractor has resubmitted the August and September schedule updates. ST has met with MEC’s scheduler and reviewed the schedule data defaults and cost loading. The progress to date does not point to any late completion of work. It is anticipated that the schedule import and data issues will be resolved within the next update period.

Activity Name	OD	RD	Start	Finish	017	2018				2019				2020				2021			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
N830/E750 - Systems	879	532	12-Jun-17 A	08-Jan-21	[Gantt bar spanning from Q4 2017 to Q4 2020]																
General	0	0	12-Jun-17 A	12-Jun-17 A	[Gantt bar from Q4 2017 to Q4 2017]																
Key Dates	0	0	12-Jun-17 A	12-Jun-17 A	[Gantt bar from Q4 2017 to Q4 2017]																
NTP - Notice to Proceed (NTP) Northgate and East Link	0	0	12-Jun-17 A		[Gantt bar from Q4 2017 to Q4 2017]																
N830 Project	747	532	20-Dec-17 A	08-Jan-21	[Gantt bar from Q4 2017 to Q4 2020]																
N830 Construction	747	532	20-Dec-17 A	08-Jan-21	[Gantt bar from Q4 2017 to Q4 2020]																
N830 Milestones	0	0	24-Dec-20	24-Dec-20	[Gantt bar from Q4 2020 to Q4 2020]																
MS#05 Northgate: Substantial completion of Northgate Link systems (12/31/20)	0	0		24-Dec-20*	[Milestone diamond at Q4 2020]																
N830 OCS	460	418	10-Sep-18 A	19-Jul-20	[Gantt bar from Q3 2018 to Q4 2020]																
N830 Traction Power / Substations Procurement	605	383	20-Dec-17 A	08-Jun-20	[Gantt bar from Q4 2017 to Q2 2020]																
N830 Signals	421	379	15-Aug-18 A	21-May-20	[Gantt bar from Q3 2018 to Q2 2020]																
N830 Communications	562	378	10-Feb-18 A	21-May-20	[Gantt bar from Q1 2018 to Q2 2020]																
N830 Radio	410	316	09-Jul-18 A	03-Apr-20	[Gantt bar from Q2 2018 to Q1 2020]																
N830 Trunk Fiber	405	363	28-Sep-18 A	29-Apr-20	[Gantt bar from Q4 2018 to Q1 2020]																
N830 Testing and Commissioning	571	461	07-Sep-18 A	08-Jan-21	[Gantt bar from Q4 2018 to Q4 2020]																

Schedule Performance Index

The Contractor performed slightly ahead of the late schedule (SPI 1.10) and slightly behind the early schedule (SPI 0.95) in comparison to the baseline work plan.



Next Period's Activities

- Continue Procurement for Signal and Communication materials fabrication and installation.
- Continue development and reviews of engineering submittals covering all disciplines: Traction Power Substations (TPSS), Overhead Catenary Systems (OCS), Train Control Systems (TCS)/Signals and Communications.
- Continue meetings held between Systems and Civil Contractors to discuss and coordinate interface/access points for respective contracts.
- Continue on the Northgate Parking Garage punch-list clearance, training, as-builts and Operations and Maintenance documentation.

Closely Monitored Issues

- The Construction Management Consultant and Sound Transit continue to closely monitor the schedule of the procurement packages and to ensure it does not impact upcoming work activities.
- Ongoing coordination for the IDS cutover change from full shutdown to single tracking and the additional risk that is associated with this change associated with the contractor's revised means and methods approach to completing the work.

Cost Summary

Present Financial Status	Amount
N830 Contractor - Mass Electric Construction Co.	
Original Contract Value	\$ 104,660,444
Change Order Value	\$ 577,084
Current Contract Value	\$ 105,237,528
Total Actual Cost (Incurred to Date)	\$ 21,690,217
Financial Percent Complete	20.6%
Physical Percent Complete	22.0%
Authorized Contingency	\$ 5,233,022
Contingency Drawdown	\$ 577,084
Contingency Index	1.9

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



Punch list work at the Northgate Parking Garage.

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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 Final Design

Budget \$2.772 Billion (Baseline May 2018)

Schedule Revenue Service: July 2024



Map of Lynnwood Link Extension Alignment.

Key Project Activities

- Received bids on L300 early work subcontract package for civil demolition on Oct. 4th.
- Installed Land use action signs in Lynnwood on Oct. 8th; 14-day public comment period occurred Oct. 8th-22nd.
- Received City of Mountlake Terrace interim temporary parking submittal package from the Civil Design Consultant and submitted it to the City.
- Received remaining L115 demolition permits from the City of Seattle.
- Conducted an all-day L800 systems constructability workshop with Mass Electric.
- City of Mountlake Terrace finished their completeness review of the Conditional Use Permit application.
- Received 30% plans for the L300 main package 200th Street widening.
- Received Issue for Construction (IFC) submittal for L200 early work from the civil design consultant.
- Completed all building demolition under the L115 contract scope. Continuing foundation removal for buildings in Seattle.
- Continued negotiations with SKH for L200 early work.

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 2018, \$6.7 M was incurred, of which \$2.5 M was for advancing civil & systems final design, and \$2.0 M was for property acquisition and relocation. The remaining expenditures were for third party coordination, permits, staff, legal, and other direct charges.

Commitments and incurred costs under the construction phase are related to permits, utility relocation, and early demolition activity.

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	\$26.6	\$26.2	\$98.2	\$0.0
Preliminary Engineering	\$39.1	\$39.1	\$39.1	\$39.1	\$39.1	\$0.0
Final Design	\$164.2	\$164.2	\$111.1	\$81.3	\$164.2	\$0.0
Construction Services	\$128.4	\$128.4	\$19.6	\$14.3	\$128.4	\$0.0
3rd Party Agreements	\$14.6	\$14.6	\$8.5	\$5.5	\$14.6	\$0.0
Construction	\$1,921.4	\$1,921.4	\$12.4	\$5.1	\$1,921.4	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$235.7	\$235.7	\$117.9	\$106.7	\$235.7	\$0.0
Project Contingency	\$170.2	\$170.2	\$0.0	\$0.0	\$170.2	\$0.0
Total	\$2,771.6	\$2,771.6	\$335.1	\$278.2	\$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	\$791.8	\$0.0	\$0.0	\$791.8	\$0.0
20 Stations	\$357.9	\$357.9	\$0.0	\$0.0	\$357.9	\$0.0
30 Support Facilities	\$2.0	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
40 Sitework & Special Conditions	\$397.0	\$397.0	\$11.9	\$4.8	\$397.0	\$0.0
50 Systems	\$244.4	\$244.4	\$0.0	\$0.0	\$244.4	\$0.0
Construction Subtotal (10 - 50)	\$1,793.0	\$1,793.0	\$11.9	\$4.8	\$1,793.0	\$0.0
60 Row, Land	\$235.7	\$235.7	\$117.9	\$106.7	\$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	\$449.3	\$205.3	\$166.7	\$449.3	\$0.0
90 Unallocated Contingency	\$292.2	\$292.2	\$0.0	\$0.0	\$292.2	\$0.0
Total (10 - 90)	\$2,771.6	\$2,771.6	\$335.1	\$278.2	\$2,771.6	\$0.0

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.

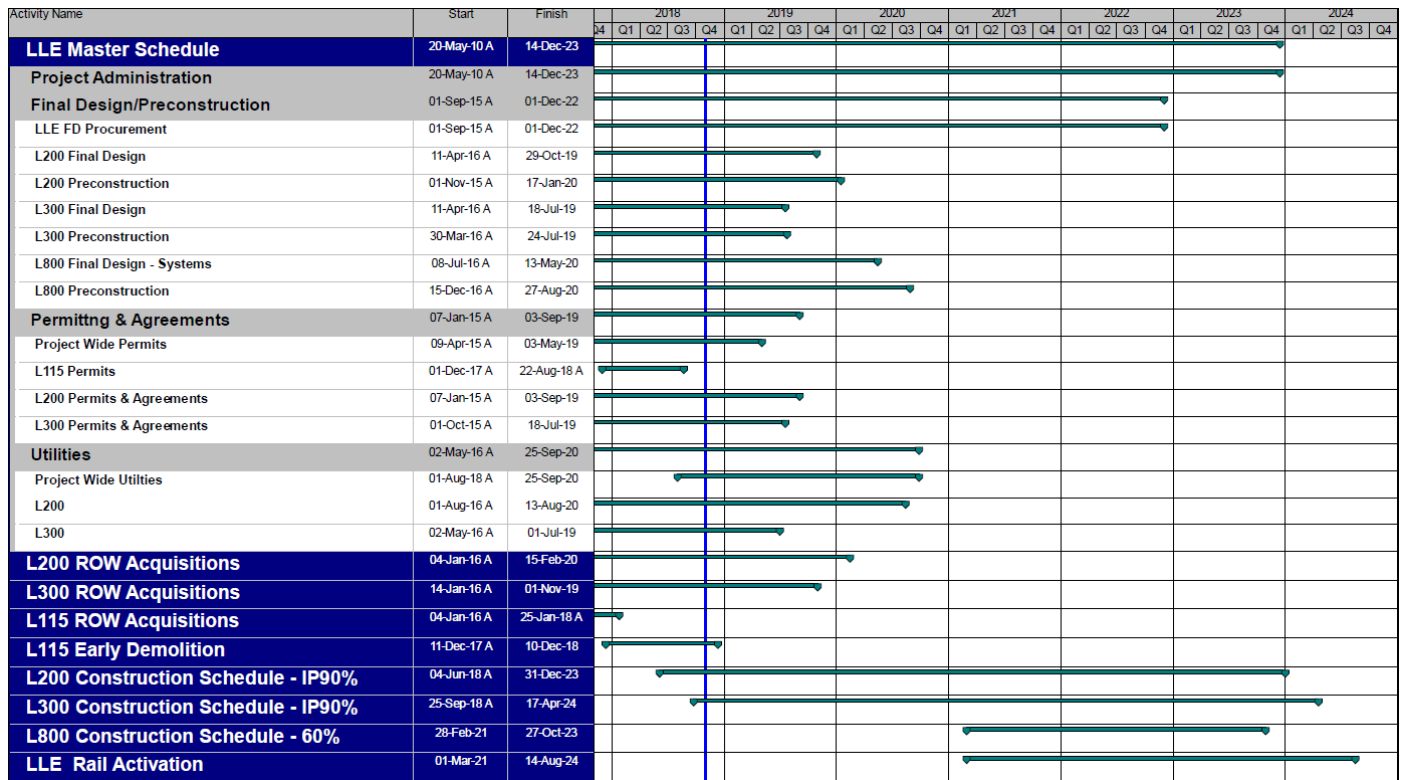
The next quarterly (4th QTR) risk update for the project is scheduled for December 2018. ST includes participation of construction management consultants and construction contractors in its risk management program.

The following are the top project risks:

- FFGA execution schedule.
- Obtaining permits—Cities, WSDOT and resource agencies.
- Timely completion of right-of-way acquisition.
- Construction market conditions.
- Differing site conditions encountered during construction.

Project Schedule

The project team continues to progress through Final Design for both L200 and L300 main packages. ST is in negotiations for the early work packages with NTP expected in 1st QTR 2019. The L115 demolition work is on schedule to complete in November. Right-of-Way acquisitions and permitting continue to be closely monitored for potential critical path impacts. The team has also worked closely with the GC/CMs to clarify the permitting process leading up to early work demolition, and to facilitate revision of the L200 schedule, which has helped remove the demolition permit process from the critical path. The critical path currently runs through the completion of design and contract negotiations to NTP for the early work and the start of on-site construction. The team has begun a focus on the civil-systems interfaces, including a guided workshop that included the civil and systems contractors. Revenue Service for Lynnwood Link remains 2024.



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.

During this period, AC decreased by \$0.1 M due to change orders to the civil final design contract.

No drawdown to UAC occurred in this period.

Contingency Status (Monthly)

Type	Baseline		Current Status	
	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$247.9	8.9%	\$247.9	9.9%
Allocated Contingency	\$197.6	7.1%	\$197.1	7.9%
Unallocated Contingency	\$292.2	10.5%	\$292.2	11.7%
Total:	\$737.7	26.6%	\$737.3	29.6%

Contingency by Type

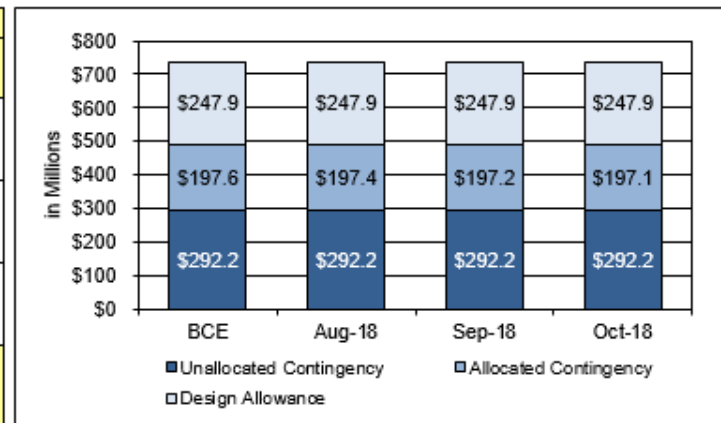
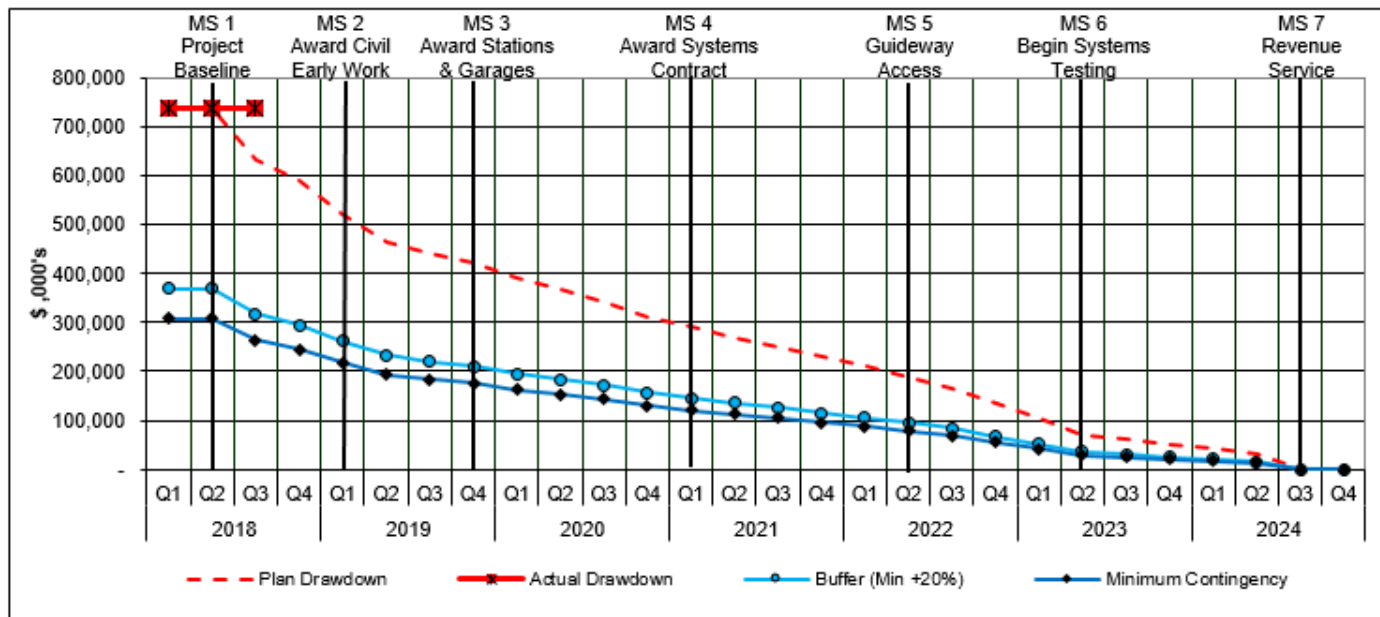


Table figures are shown in millions.

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.

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	350	208	105	236	142

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

- The Board Approved parcels increased because two parcels were approved at the October Board Meeting (R2018-39).
- The additional five parcels were the result of two parcels being re-platted into separate tracts.

Community Outreach

In October, community outreach activities included:

- Door-to-door outreach to 105 properties adjacent to demolition and pavement coring activity.
- Engaged with property owners to answer questions about survey work, abandoned property, tree removal and replacement, noise wall removal, and ADA parking.
- Responded to Community Transit RideStore request for information about temporary parking at Lynnwood City Center Station.
- Supported the Oct. 17th open house by the SR 522/NE 145TH Bus Rapid Transit team with a booth, talking to 18 people.
- Attended two community input focus groups for future light rail projects in the north corridor, one hosted by Sound Transit and one hosted by Community Transit.
- Toured Northgate Station with the Northgate Link outreach team as part of planning north Seattle outreach for L200.

Sound Transit Board Actions

Board Action	Description	Date
M2018-122	Authorizes the chief executive officer to execute an amendment to the Expedited Permitting and Reimbursement Agreement with the City of Shoreline to add construction support services for the Lynnwood Link Extension in the amount of \$3,700,669, with a 5% contingency of \$199,046 totaling \$3,899,715, for a new total authorized agreement amount not to exceed \$6,099,715.	10/25/2018
R2018-39	Authorizes the chief executive officer to acquire certain real property interests, including acquisition by condemnation to the extent authorized by law, and to reimburse eligible relocation and reestablishment expenses incurred by affected owners and tenants as necessary for the Lynnwood Link Extension.	10/25/2018

Civil Final Design Overview

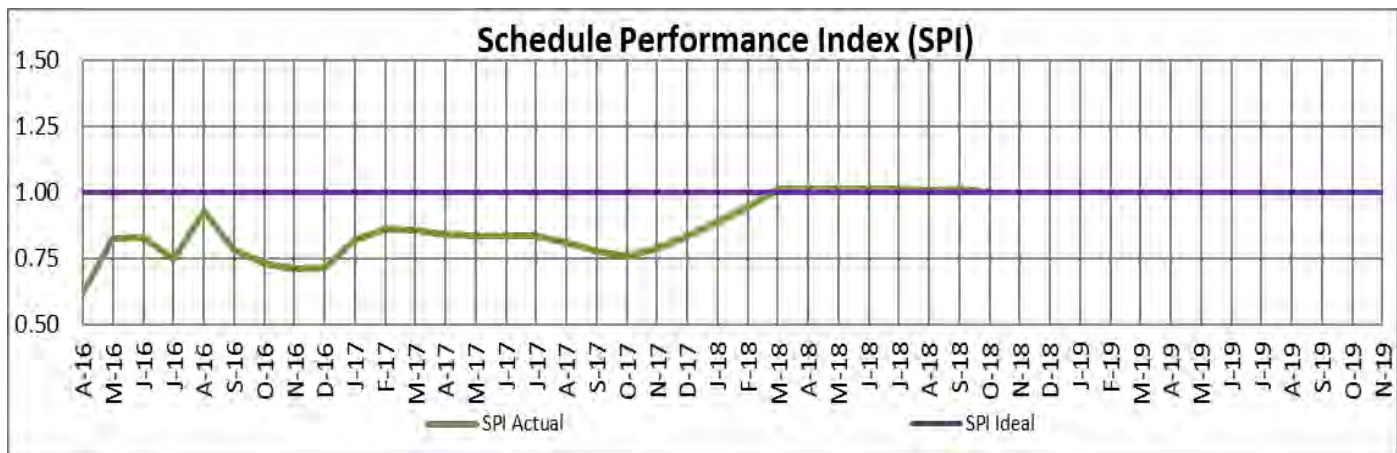
Sound Transit executed a professional services contract with HNTB Jacobs in April 2016 to perform civil final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive civil contract documents for construction, design coordination and cooperation with the GC/CM 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

- Advancement of the 90/100% Civil Final Design.
- Early Work pricing set revisions and Issue For Construction submittals.
- Start of Quality Control for L200 & L300 90/100% Main Packages
- Submittal for permit issuance of the 100% Mountlake Terrace Temporary Interim Parking at Rogers Market.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 1.00 through October 2018, which means that the cumulative amount of work accomplished is consistent with the amount of work originally planned.

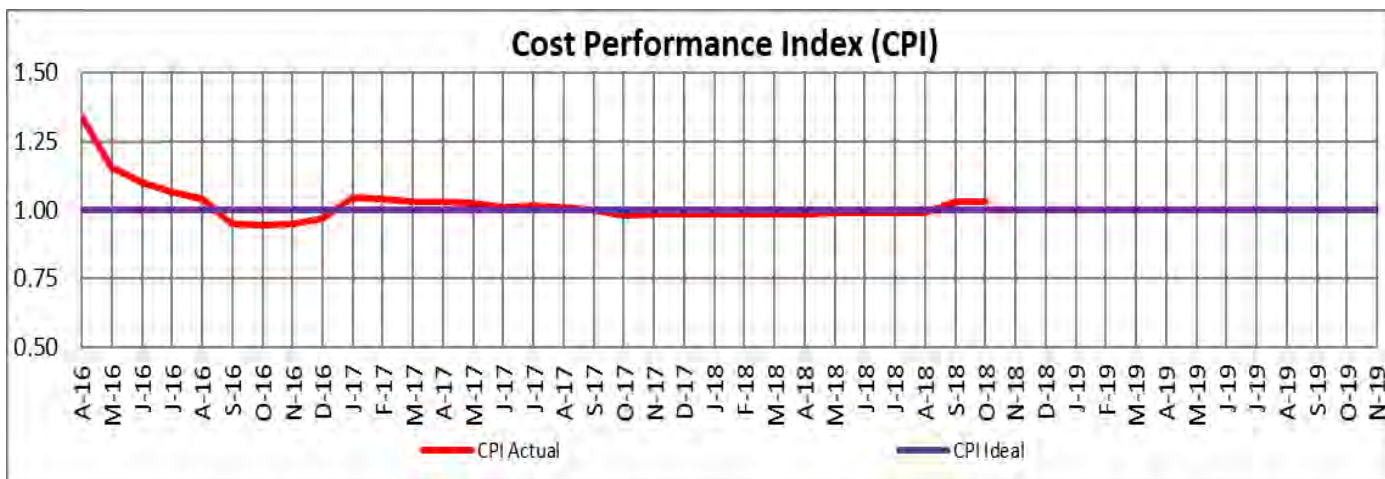


Link Light Rail Lynnwood Link Extension



Cost Performance Index

\$77.0M of the total contract amount, 77%, has been spent through October 2018. The civil final design percent complete is 79%, with an earned value of \$79.2M. The cumulative Cost Performance Index (CPI) through October is 1.03 indicating that expenditures are consistent and trending lower than the earned value of work performed.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$77.0 M
% Spent	77%
Earned Value	\$79.2 M
% Complete	79%
SPI	1.00
CPI	1.03

Systems Final Design Overview

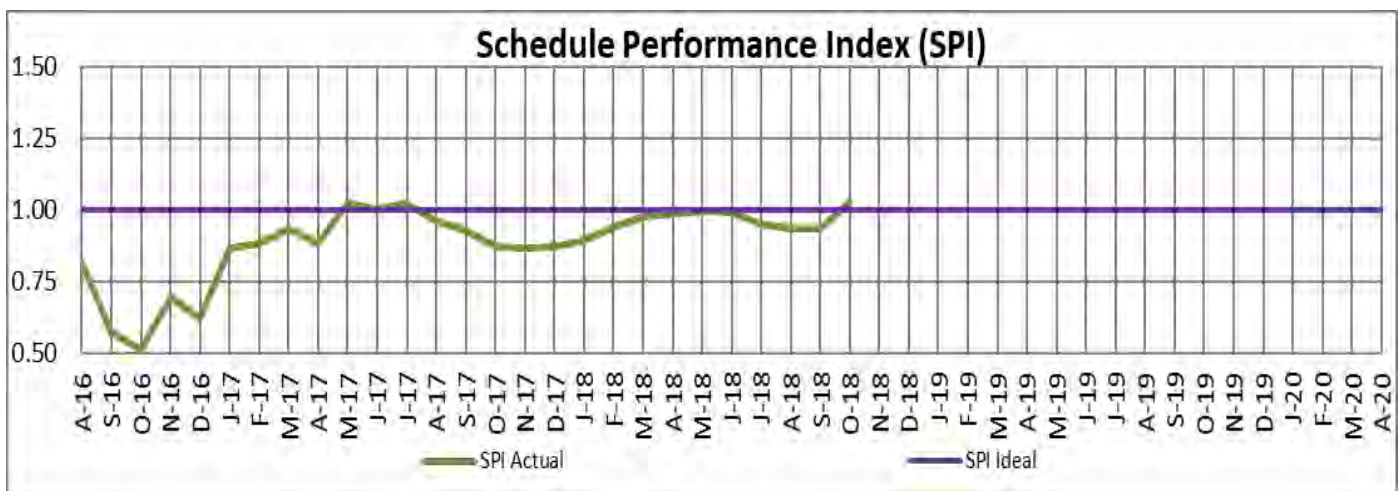
Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform systems final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive systems contract documents for construction, design coordination and cooperation with 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

- Advancement of 90% Design work, targeting 1st QTR 2019 completion.
- Continued planning for constructability review in late 4th QTR 2018.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 1.03 through October 2018, which means that cumulative amount of work accomplished is slightly more than the amount of work originally planned.

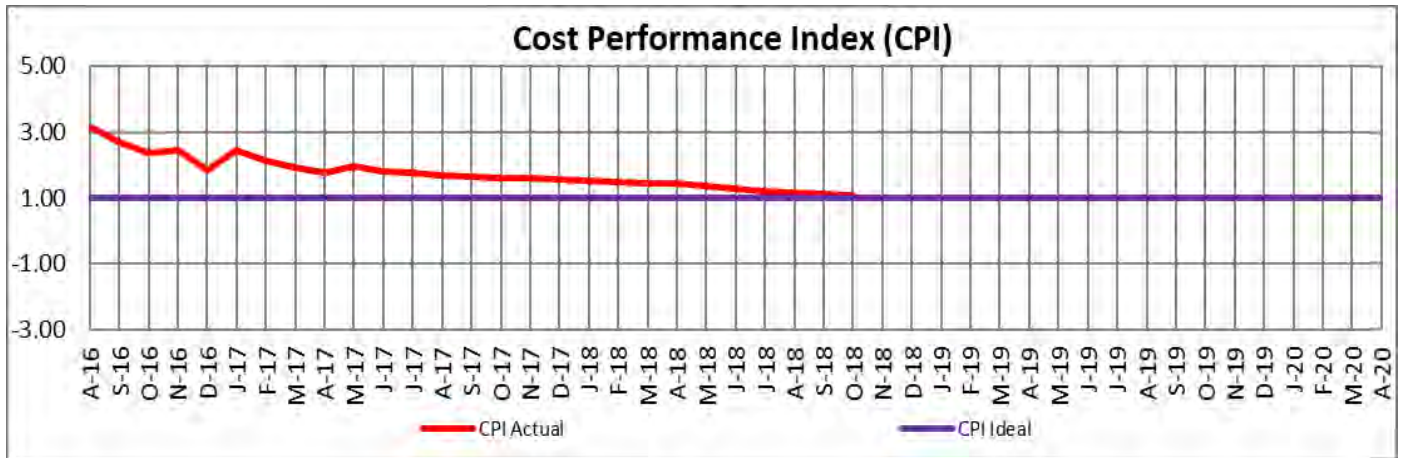


Link Light Rail Lynnwood Link Extension



Cost Performance Index

\$6.0 M of the total contract amount, 64%, has been spent through October 2018. The systems final design percent complete is 68%, with an earned value of \$6.4 M. The cumulative Cost Performance Index (CPI) through October is 1.07 indicating that expenditures are significantly lower than the earned value of work performed.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$6.0M
% Spent	64%
Earned Value	\$6.4M
% Complete	68%
SPI	1.03
CPI	1.07

Civil Construction Management Overview

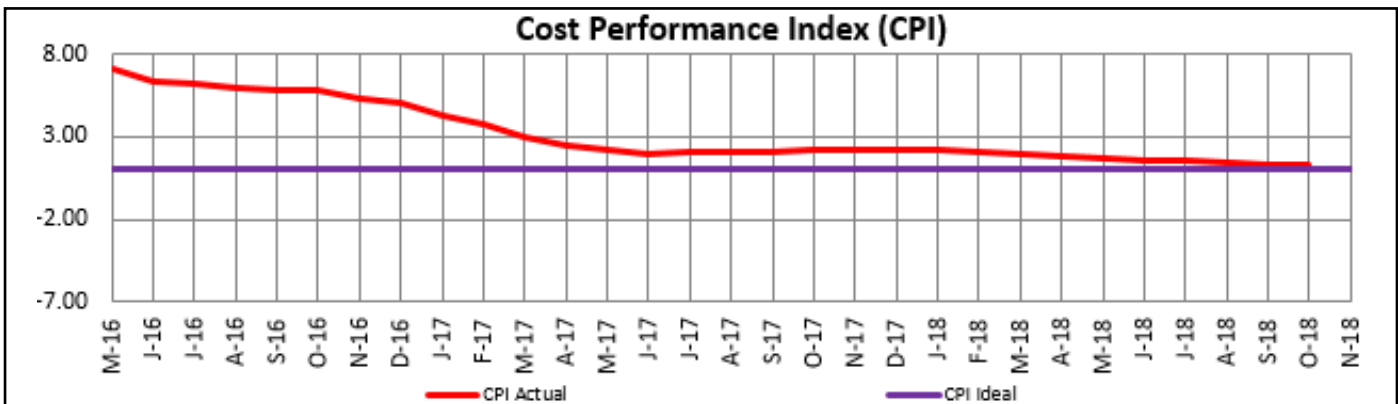
Sound Transit executed a professional services contract with PGH Wong in May 2016 to perform civil Construction Management (CMC) Services, including procurement support, permit support, contract document review, construction estimate reviews, participation in value engineering, risk assessments and constructability reviews, construction management support and oversight of early works by adjacent private and public developments, and public and private utility relocations.

Current Progress

- Coordinating meetings with design, GC/CM, and Sound Transit teams.
- Coordination on various preconstruction activities including cost estimates, schedule, and constructability.
- Coordinating with GC/CMs and Final Designer in review of the Civil 100% design package.
- Construction management oversight for the L115 demolition contract.

Cost Performance Index

\$5.9 M of the total contract amount, 79%, is spent through October 2018, with an earned value of \$7.5 M. The cumulative Cost Performance Index (CPI) is 1.27, indicating that expenditures are significantly lower than the earned value of work performed. Phase 1 of the contract was planned to end in January 2018, but the schedule extended along with the schedule for design completion. Phase 2 of the contract is expected to begin in December 2018.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$5.9 M
% Spent	79%
Earned Value	\$7.5 M
CPI	1.27



L115 hydroseeding

Link Light Rail Lynnwood Link Extension

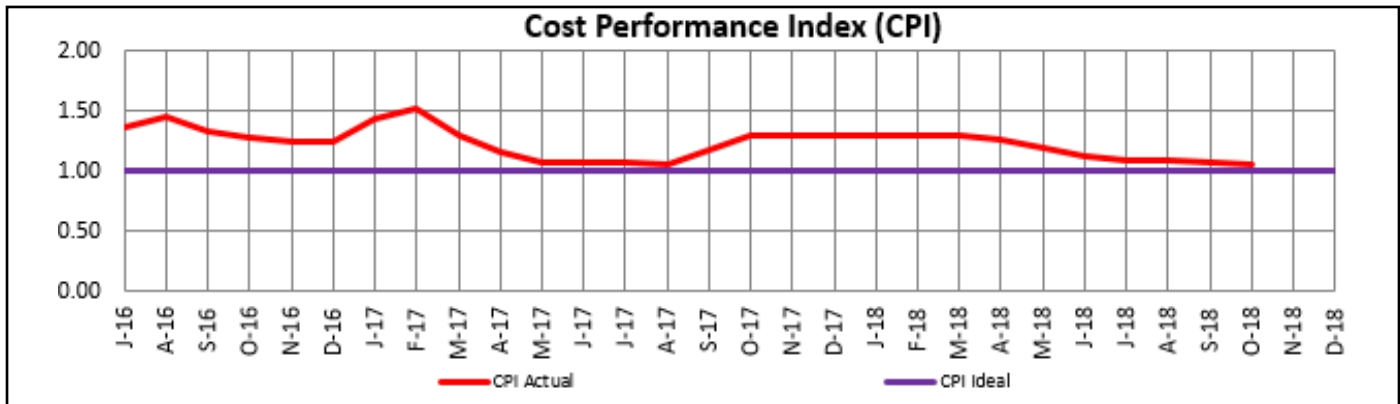


GC/CM Pre-Con Overview - L200 Northgate to NE 200th Street

Sound Transit executed a professional services contract with Stacy & Witbeck Kiewit Hoffman in June 2016 to perform GC/CM pre-construction services for the L200 segment, including assistance in preparation of final construction plans including traffic control, preparation of schedules, reviewing right-of-way needs, identifying potential early work, assisting in risk assessments, value engineering and constructability workshops, preparing cost estimates, and completing reviews of contract documents.

Cost Performance Index

\$4.6 M of the total contract amount, 90%, is spent through October 2018, with an earned value of \$4.8 M. The cumulative Cost Performance Index (CPI) is 1.06 indicating that expenditures are lower than expected for the earned value of work performed.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$4.6 M
% Spent	90%
Earned Value	\$4.8 M
CPI	1.06

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

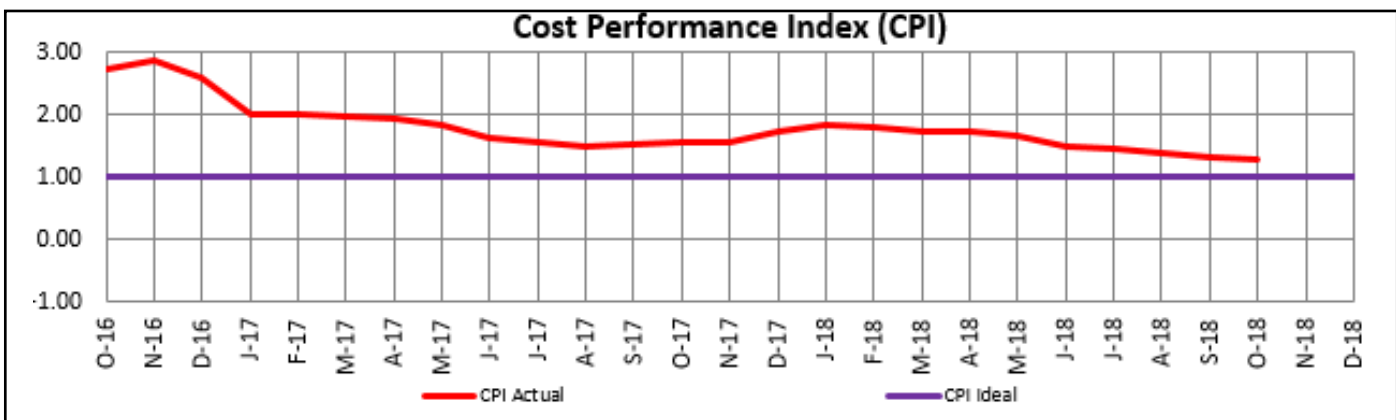
Sound Transit executed a professional services contract with Skanska in October 2016 to perform pre-construction services for the L300 segment, including assistance in preparation of final construction plans including traffic control, preparation of schedules, reviewing right-of-way needs, identifying potential early work, assisting in risk assessments, value engineering and constructability workshops, preparing cost estimates, and completing reviews of contract documents.

Current Progress

- Coordinating meetings with design, Construction Management Consultant (CMC), and Sound Transit teams.
- Progress on various preconstruction activities including cost estimates, schedule, and constructability.
- Coordinating with CMC and final designer in review of the Civil 100% early work design package.

Cost Performance Index

\$4.0 M of the total contract amount, 75%, has been spent through October 2018, with an earned value of \$5.2 M. The cumulative Cost Performance Index (CPI) is 1.29, indicating that expenditures are significantly lower than expected for the earned value of work performed.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$4.0 M
% Spent	75%
Earned Value	\$5.2 M
CPI	1.29

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: 2nd QTR 2018

Major Contracts

	Scope	Agreement/Contract Amount
WSDOT	Final Design	\$ 20,942,000
WSDOT	CM Services	\$ 16,358,000
IMCO	Construction	\$122,021,000
City of Mercer Is	Transportation Mitigation	\$10,050,000

Key Project Activities

- **Work Outside the Tunnels** – Ongoing BIM review/comments; continue acceptance testing of irrigation controller; monthly review of plant establishment.
- **Mercer Island Tunnel** – Tracking warranty items and commissioning status, ongoing conduit / wiring labeling; continue to monitor generator fuel tank for leakage; continue resolution of fuel tank alarm issues.
- **Mount Baker Ridge Tunnel** – Tracking warranty items and commissioning status, ongoing conduit / wiring labeling; continue resolution of fuel tank alarm issues.
- **SCADA** – Continue troubleshooting multiple alarm issues.
- **Simplex** – Continue troubleshooting programming and status display issues.

Closely Monitored Issues

While the center roadway turnover to Sound Transit was completed on schedule, Substantial Completion continues to slip; achievement of Substantial Completion is anticipated for 4th Quarter 2018, due to the following:

- Challenges continue with final commissioning of the Fire/Life/Safety Systems, including incomplete BIM As-Built data, incomplete or missing O&M manuals, and missing test reports;
- Unresolved issues with multiple punch list items.

Project Cost Summary

The following tables summarize the cost information for the I-90 Two-way Transit and HOV Operations (Stage 3) project. WSDOT has caught up on their invoice submittals, allowing resolution to past over-accruals and a more realistic expenditure forecast. October's monthly expenditure was \$1.4M, and included Contractor payments for portions of the final commissioning plus additional work identified as scope gap. Future expenditures are expected to taper off. 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	\$18.0	\$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	\$182.6	\$168.5	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$205.2	\$190.4	\$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	\$182.6	\$168.5	\$190.7	\$0.0
80 Professional Services	\$26.3	\$26.3	\$22.6	\$21.8	\$26.3	\$0.0
90 Unallocated Contingency	\$18.7	\$8.7	\$0.0	\$0.0	\$8.7	\$0.0
Total	\$225.6	\$225.6	\$205.2	\$190.4	\$225.6	\$0.0

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

Cost Contingency Management

In the table below, the Allocated Contingency includes both WSDOT-controlled construction contingency and the total ST-controlled allocated contingencies. Although there was no change to the Current Contingency Amount, there was an increase in the % of Contingency Remaining due to the decrease in the remaining budget from the previous period. This results in an increase to Current Contingency % when compared to the remaining work budgeted.

Contingency Status	Baseline		Current	
	Amount	% of Total	Amount	Contingency as a % of Work Remaining
Design Allowance	\$0.0	0.0%	\$0.0	0.0%
Allocated Contingency	\$17.0	7.5%	\$2.3	6.5%
Unallocated Contingency	\$18.7	8.3%	\$8.7	24.5%
Total:	\$35.7	15.8%	\$10.9	31.0%

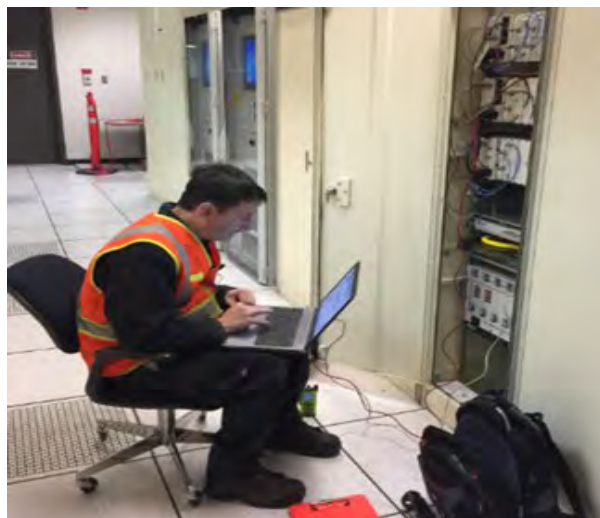
Note: Table in millions.

Project Schedule

Project Milestones for construction are indicated below; forecast dates were submitted by WSDOT as anticipated dates, but have not at this time been accepted. Ongoing negotiations between WSDOT and the contractor to resolve commercial issues have pushed the forecast Substantial and Physical Completion dates into 4th QTR 2018.

Contract	Final Tunnel Commissioning Complete		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	Q4/2018	2/20/2017	Q4/2018	5/31/2017	6/14/2017 A	5/31/2017	Q4/2018

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



Simplex interface programming, Mercer Island Tunnel



Plant Establishment review along I-90

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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 and Redmond Technology
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):** Ongoing electrical retrofit for cathodic protection and approach structure retrofit; TPSS 2 construction; overlay repair, plinth grinding for track attachment.
- **Mercer Island (E130):** Ongoing electrical retrofit and structural modifications; construction of Mercer Island Station structures and Traction Power Sub Station (TPSS) sites 3 & 4; continued sub-ballast work, including ties and attachment of rail.
- **IDS to Mt. Baker Tunnel (E130):** Ongoing retrofit of tunnel electrical and structural modifications; ongoing construction of Judkins Park Station structures and utilities; completed demolition of Rainier Ave. Bridge.

South Bellevue to Redmond

- **South Bellevue (E320):** Continued parking garage construction, working up through level two and installation of traveler to span over I-90. Continued station platform work and began removing roadway at 112th undercrossing.
- **Downtown Bellevue Tunnel (E330):** Continued patching, installing drainage mat, applying smoothing layer to invert and crown. Mobilized waterproofing subcontractor and began waterproofing the tunnel invert on the north side.
- **Downtown Bellevue to Spring District (E335):** Base slab concrete placement; continued reinforcing stem wall for long span over I-405; work on aerial guideway such as: placed re-steel for deck, framed overhang and soffit, concrete for diaphragm; on going wall reinforcing for the North Portal cut-and-cover structure and commenced wall concrete placements.
- **Bel-Red (E340):** Installed false decking, form & pour girder stops and diaphragms, and form guideway OCS supports and overhangs. Continued on wall panel placement at South Station.
- **SR520 to Redmond Technology Station (E360):** Design - IFCs for SR520 Permanent Roadway and OVS Ped Bridge were submitted Construction - Ongoing wall construction along SR520. OVS pedestrian bridge construction started.
- **Systems (E750):** Continued with submittals, components and product design. Coordinated Installation Plan discussions between civil and system contractors.

Closely Monitored Issues

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

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) continues to be projected at approximately \$3.68B. This period’s expenditure is about \$56M, pushing the total project expenditure to date cost from \$1.52B to \$1.58B. Project commitments has risen to over \$3B with all major construction contracts in place and construction is on-going throughout the alignment.

Cost Summary by Phase

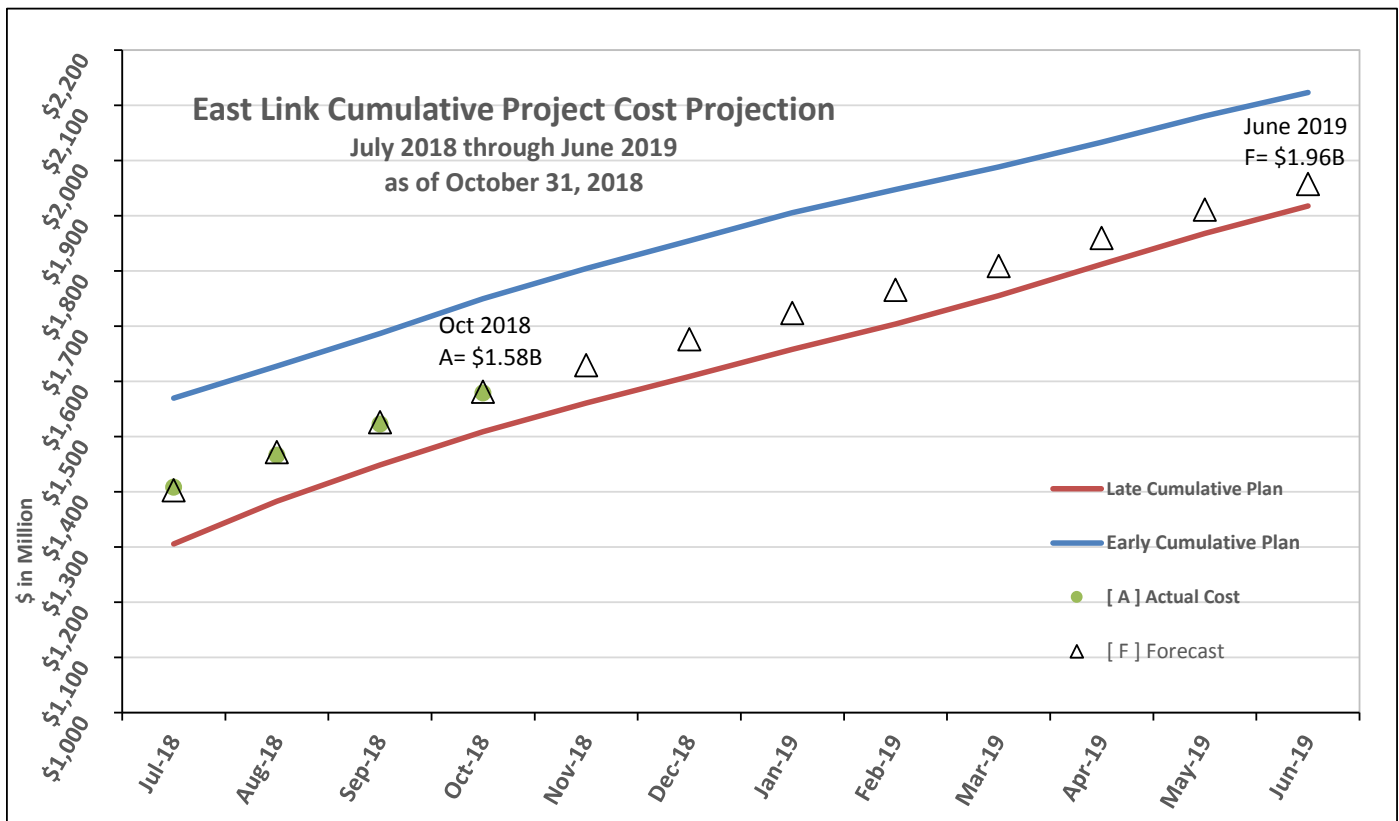
Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$186.2	\$186.2	\$75.1	\$75.0	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.8	\$54.7	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$245.6	\$211.3	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$196.7	\$70.6	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$38.5	\$19.5	\$52.2	\$0.0
Construction	\$2,544.3	\$2,544.3	\$2,149.8	\$880.6	\$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	\$268.3	\$267.0	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$3,028.8	\$1,578.7	\$3,677.1	\$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	\$890.0	\$435.4	\$959.1	(\$214.5)
20 Stations	\$397.7	\$474.2	\$434.1	\$135.1	\$470.9	(\$73.2)
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$808.5	\$568.3	\$457.1	\$245.6	\$600.2	\$208.3
50 Systems	\$353.8	\$367.9	\$346.0	\$52.9	\$329.8	\$24.0
Construction Subtotal (10 - 50)	\$2,304.6	\$2,360.1	\$2,127.2	\$869.0	\$2,360.0	(\$55.4)
60 Row, Land	\$288.5	\$288.5	\$268.3	\$267.0	\$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	\$633.3	\$442.7	\$889.2	\$9.2
90 Unallocated Contingency	\$182.9	\$136.6	\$0.0	\$0.0	\$136.6	\$46.2
Total (10 - 90)	\$3,677.2	\$3,677.2	\$3,028.8	\$1,578.7	\$3,677.1	\$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 expenditure topped out at approximately \$56M where Construction Phase is responsible for over 92% or approximately \$51.7M of October's expenditure. Total project cost incurred to date topped \$1.58B, to which about \$881M was recorded in the Construction Phase. The project expenditures continue to pick up and is currently predicted to increase to approximately \$1.96B by June 2019, reflecting continued active construction through the remainder of 2018.



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 2018 risks update was completed in early October. Following the completion of the Risk Mitigation Milestone #4 (completion of SEM Tunneling), East Link's Quantitative Risk Assessment took place on the week of October 29th. It is anticipated that the draft report from this workshop will be issued by the end of November.

The following are the current top project wide risks areas:

- Coordination and completion of the relocations of public and private utilities.
- Compliance with environmental requirements.
- Competitiveness in the construction market and potential shortage of skilled labor.
- Interfaces between various contracts and third party jurisdictions.

Contingency Management

East Link project budget was baselined on April 2015 with a total contingency of \$795.9M. At the end of October 2018, all major construction contracts have been procured, the total contingency balance stands at \$417.6M (previously \$417.8M). The current contingency balance is consistent with the project's planned contingency drawdown.

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

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period, AC decreased by a net amount of approximately \$0.2M. Due to rounding, total AC remained at \$277.3M. 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%	\$277.3	13.2%
Unallocated Contingency	\$182.9	5.0%	\$136.6	6.5%
Total	\$795.9	21.6%	\$417.6	19.9%

Contingency by Type

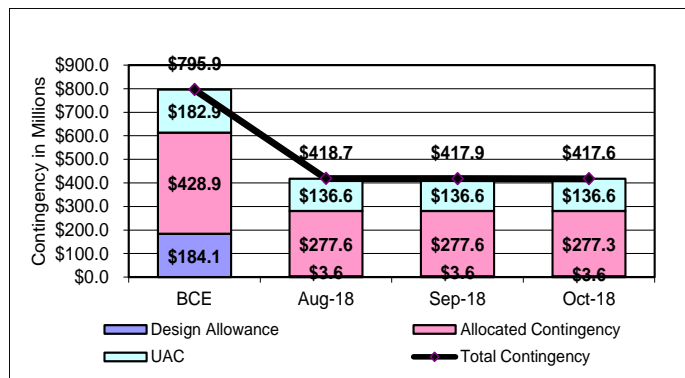
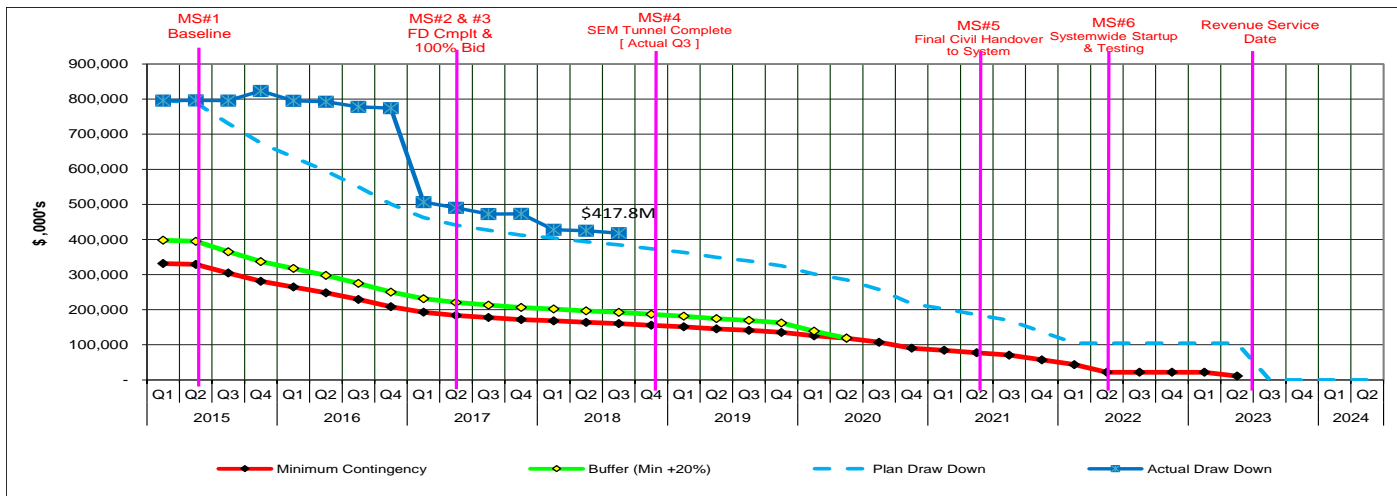


Table figures are shown in millions.

Contingency Drawdown

At the end of the 3rd QTR 2018, East Link Project's total contingency drawdown plan is trending as planned. Total contingencies balance is approximately \$417.8M and with all major construction contracts procured, remains above the baseline drawdown projection and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels. The next contingency drawdown update is scheduled for the end of 4th QTR 2018.



Graph for Quarter ending September 2018

Link Light Rail East Link Extension



Project Schedule

The Integrated Master Schedule is presented below.

E130 demolished the Rainier Ave Bridge and continued retrofit work around the D2 roadway, in the Mt. Baker Tunnel, along the HHM floating bridge, and at MI Station. Structural work continued at both stations.

E320 continued pier table work for the long span structure, and continued installing walls at the parking garage, along Bellevue Way SE, and at the 112th undercrossing; continued removal of roadway at 112th undercrossing.

E330 continued final tunnel lining work.

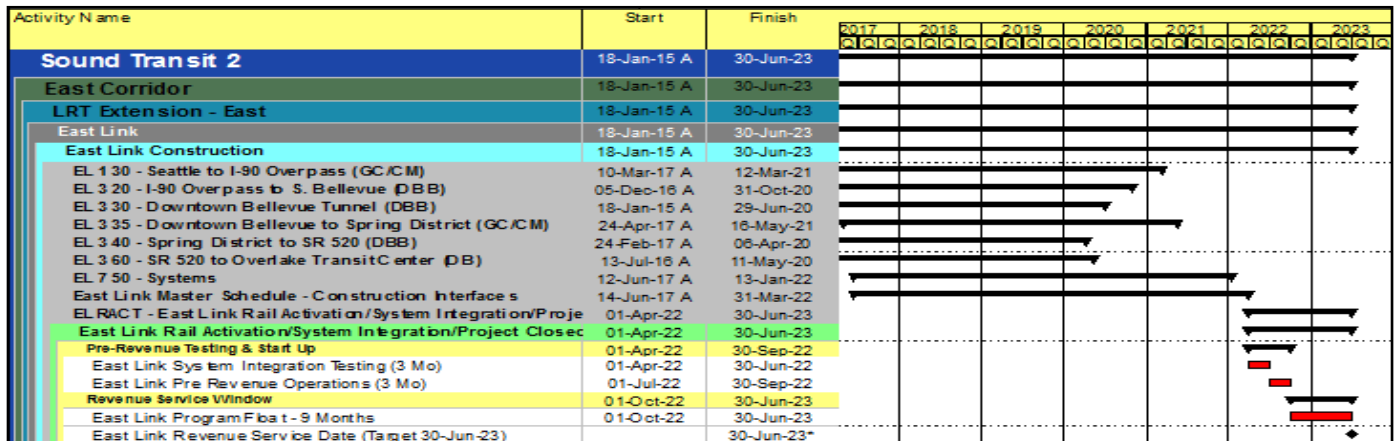
E335 continued work on aerial guideway and preparation for the long span base slab placement; continued placing trackwalls in the Kirkland Wye and placing sub-ballast and permanent fencing; continued trench wall construction east of 120th Station; and continued mobilizing and early civil work for stations.

E340 continued sanitary sewer installation and retaining wall placement on Spring Blvd; continued placing wall panels at 130th Station.

E360 continued placing columns and caps along the aerial guideway. Wall placement continued, working east toward RTS. Construction on the OVS pedestrian bridge commenced with foundations at the east abutment and in the SR520 median.

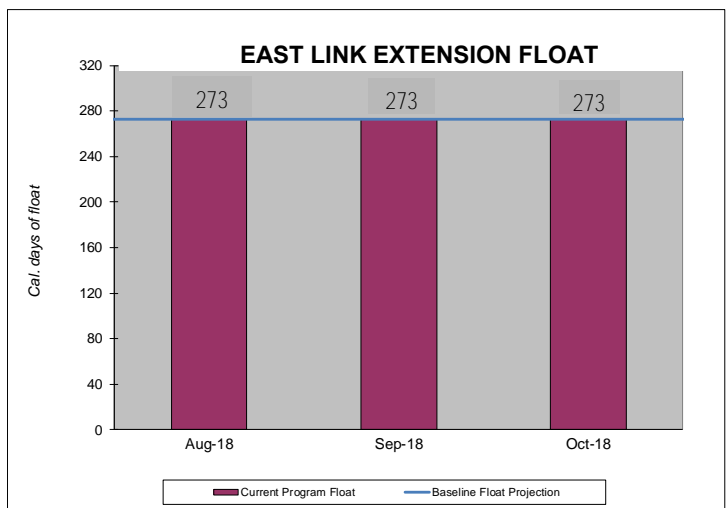
E750 Systems contractor continued product design, submittal, and procurement. This phase of work will be on-going for the next year. The physical construction on Northgate Link will occur before commencing on East Link. Systems construction on East Link is anticipated to start on the eastern segment of E130 in Summer of 2019.

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



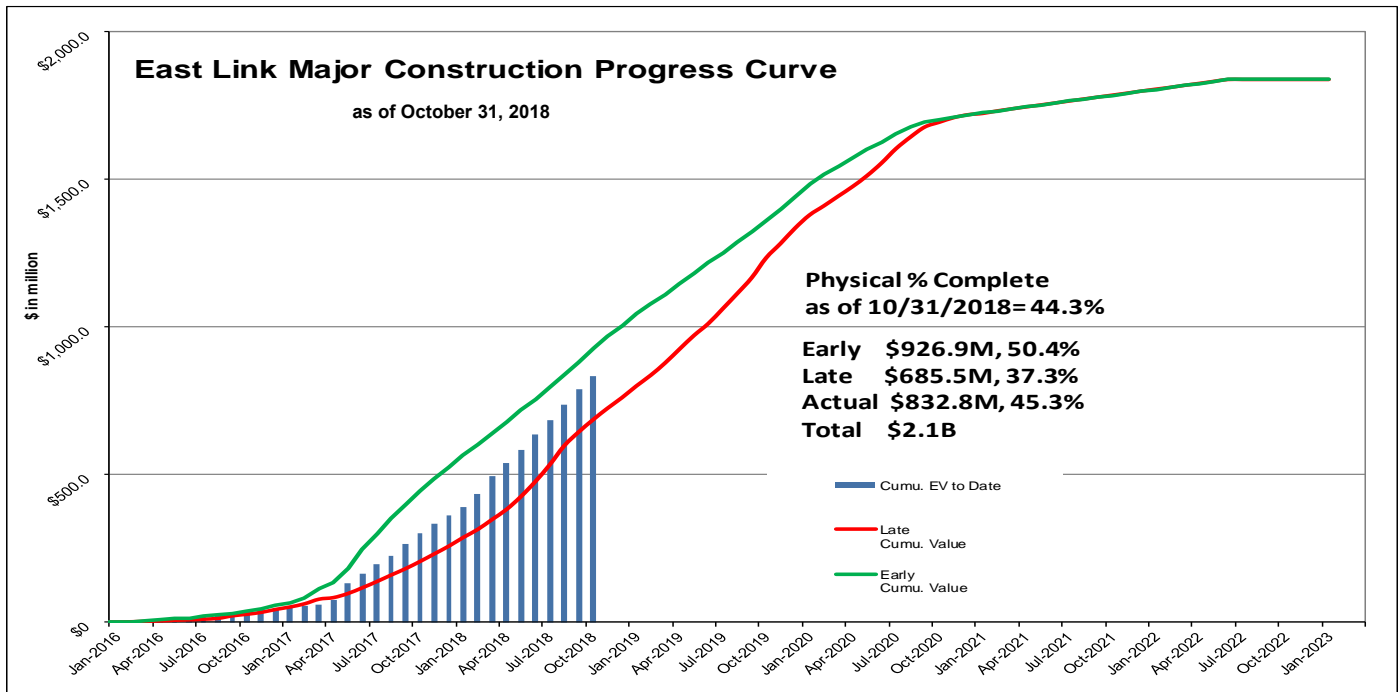
Project Float

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



Project Cash Flow Projection

All seven major construction contractors are now mobilized. All major civil work is well underway. 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 is trending appropriately between the early/late projection as drawn from the master schedule. The overall physical percent complete for East Link construction is approximately 44.3%.



E330 Downtown Bellevue Tunnel: Installation of drainage mats in tunnel.

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 Ext Extension Acquisition Status					
ACQUISITION				RELOCATION	
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
237	244	234	224	227	225

** 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, signage, night time noise, traffic, access, maintenance of traffic, irrigation line repairs.
- Coordinated with property managers for properties adjacent to SR520 trail to prepare a temporary trail bypass through a parking area as the pedestrian bridge over SR520 to Overlake Village Station is constructed.



E335 Downtown Bellevue to Spring District: Bridging spanning over Highway I-405 along NE 6th Street

Sound Transit Board Actions

<i>Board Action</i>	Description	Date
	None to report.	

Construction Safety

Data/ Measure	October 2018	Year to Date	Project to Date
Recordable Injury/Illness Cases	2	22	35
Days Away From Work Cases	1	6	7
Total Days Away From Work	133	382	384
First Aid Cases	7	82	112
Reported Near Mishaps	5	81	173
Average Number of Employees on Worksite	914	-	-
Total # of Hours (GC & Subs)	133,280	1,467,152	2,169,605
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	2.66	3.03	3.26
LTI Rate	0.00	0.76	0.59
Recordable National Average	3.20	3.20	3.20
LTI National Average	1.30	1.30	1.30
Recordable WA State Average	6.40	6.40	6.40
LTI WA State Average	2.10	2.10	2.10

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

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

Status: See following pages under Contract E360.

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

Status: Contractor continues with critical submittal, reviews of plans, component and product designs as well as meetings with civil contractors with regards to the Coordinated Installation Plan (CIP).



E130 Seattle to South Bellevue: Demolition of access ramp on I-90 along Rainier Ave-

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

Current Progress

D2 Structure & Mt. Baker Tunnel (West Segment): Ongoing retrofit of tunnel electrical and structural modifications; ongoing construction of Judkins Park Station structures and utilities; completed demolition of Rainier Ave. Bridge.

Floating Bridge Retrofit (Center Segment): Ongoing electrical retrofit for cathodic protection and approach structure retrofit; TPSS 2 construction; overlay repair, plinth grinding for track attachment.

Mercer Island (East Segment): Ongoing MI Tunnel & E Channel Bridge electrical retrofit and structural modifications; ongoing construction of Mercer Island Station structures and Traction Power Sub Station (TPSS) sites 3 and 4; ongoing sub ballast, including ties and attachment of rail.

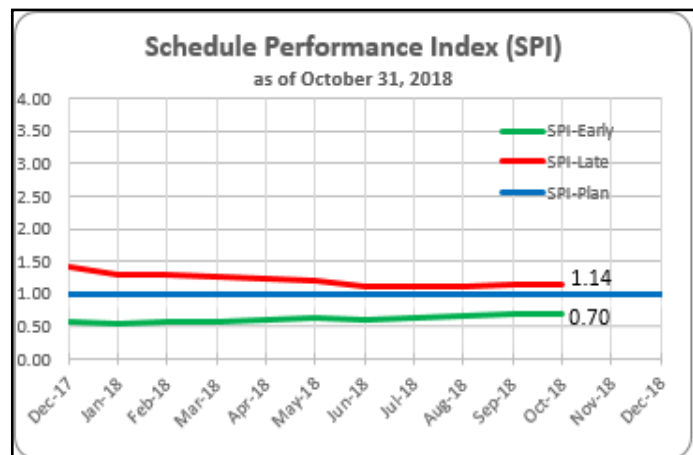
Schedule Summary

The critical path for this project continues to run through the demolition of the Rainier Avenue Bridge, then through Judkins Park Station. Contractor is currently forecast to achieve all milestones on or ahead of target completion dates.

Activity Name	Start	Finish	2019				2020						
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
E130 Construction	10-Mar-17 A	12-Mar-21	[Gantt bar]										
Milestones	10-Mar-17 A	12-Mar-21	[Gantt bar]										
Access Milestones	10-Mar-17 A	12-May-17 A	[Gantt bar]										
16. Notice to Proceed - Package 1	10-Mar-17 A		[Gantt bar]										
16. Notice To Proceed - Remaining Scope	12-May-17 A		[Gantt bar]										
Major Project Completion Milestones	17-Jul-19	12-Mar-21	[Gantt bar]										
16. MS#01 - Substantial Completion Mercer Island Station to East End Of Project (17-Jul-19)		17-Jul-19*	[Gantt bar]										
16. MS#02 - Substantial Completion Mercer Island Sta to West Mercer Island Lid (29-Jan-20)		08-Dec-19*	[Gantt bar]										
16. MS#03 - Substantial Completion of IDS Conversion (27-Feb-20)		23-Feb-20*	[Gantt bar]										
16. ST E130 Work Complete		12-Nov-20	[Gantt bar]										
16. MS#04 - Substantial Completion All Work (12-Dec-20)		10-Feb-21*	[Gantt bar]										
16. Acceptance		12-Mar-21	[Gantt bar]										
Construction	20-Mar-17 A	10-Nov-20	[Gantt bar]										
Preliminary Activities	03-Apr-17 A	01-Oct-20	[Gantt bar]										
Sitework	23-Aug-17 A	07-Nov-18	[Gantt bar]										
Demolition	20-Jul-17 A	16-Apr-19	[Gantt bar]										
Tunnel Modifications	18-Sep-17 A	20-Aug-19	[Gantt bar]										
Stations	15-Sep-17 A	23-Sep-20	[Gantt bar]										
OCS Bases/Frames	02-Apr-18 A	10-Aug-20	[Gantt bar]										
Civil/Utilities	05-Jul-17 A	10-Nov-20	[Gantt bar]										
Electrical	20-Mar-17 A	08-Oct-20	[Gantt bar]										
Structures Retrofit	20-Mar-17 A	10-Nov-20	[Gantt bar]										
Trackwork	29-Jan-18 A	27-Oct-20	[Gantt bar]										
Systems	26-Jun-17 A	10-Nov-20	[Gantt bar]										
IDS Modification	16-Sep-19	23-Feb-20	[Gantt bar]										

Schedule Performance Index

This period, the SPI early is 0.70, SPI late is 1.14. The early index indicates the Contractor is behind their early finish plans; the late index shows the Contractor is on target with their late finish plan. These figures indicate that the Contractor encountered challenges in the initial phases of the post-tensioning scope, but continues to catch up to their baseline plan. Post tensioning work was completed last month; the WSDOT winter work moratorium on the Floating Bridge is now in effect until the end of March 2019.



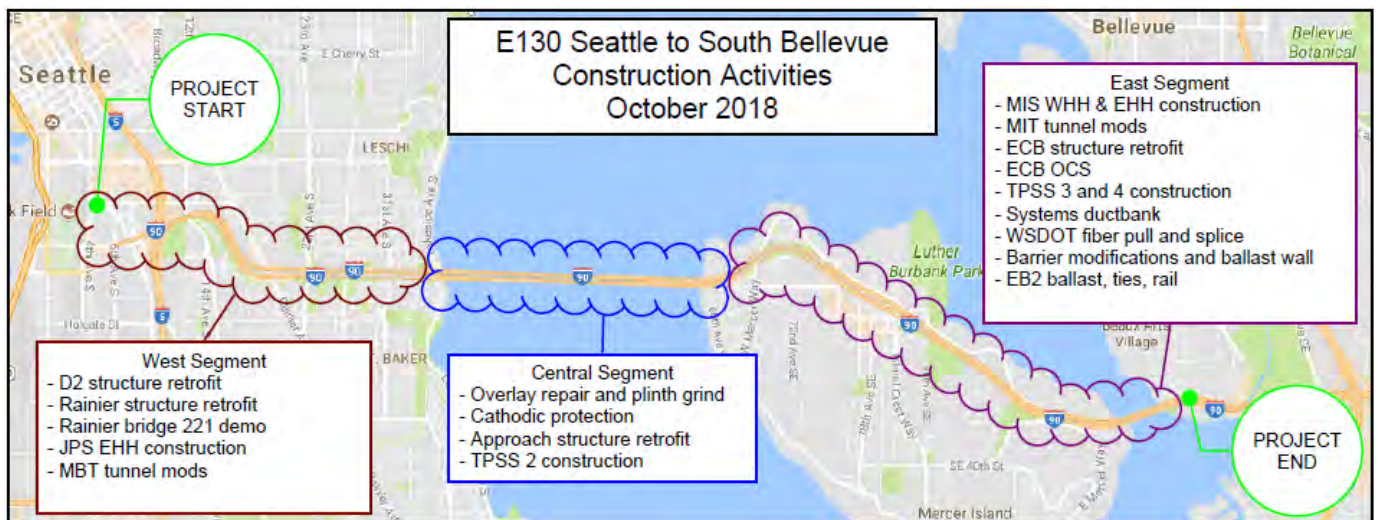
Next Period's Activities

- **West Segment:** Continue electrical and structure retrofits; ongoing Judkins Park Station construction, utility work.
- **HMH Floating Bridge (Center Segment):** Continue electrical retrofit; prepare deck and begin lightweight concrete plinth attachment; WSDOT winter work moratorium continues.
- **East Segment:** Continue retrofit of tunnel electrical; continue MI Station, TPSS sites construction, ongoing structures retrofit.

Closely Monitored Issues

- Extent of variations in the actual deck thickness on the East Channel Bridge and potential ramifications
- Timeliness of PSE service connections on Mercer Island regarding Milestone 1 and E750 interface.

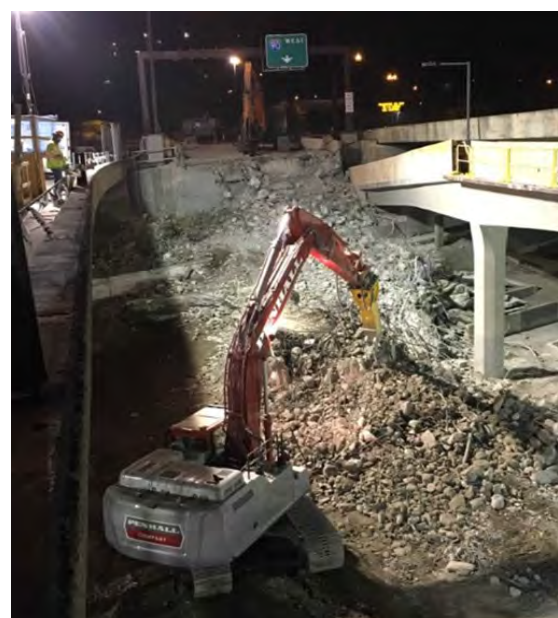
E130 Construction Activities



Cost Summary

Present Financial Status	Amount
E130 Contractor - Kiewit-Hoffman	
Original Contract Value (incl. Phase 2 MACC)	\$665,000,000
Change Order Value	\$15,770,419
Current Contract Value	\$679,815,419
Total Actual Cost (Incurred to Date)	285,505,314
Financial Percent Complete	42.0%
Authorized Contingency	\$46,660,541
Contingency Drawdown	\$15,770,149
Contingency Index	1.2

Contract Value excludes Betterment



Rainier Ave. Bridge demolition

Contract E320 – South Bellevue

Current Progress

I-90 Flyover: Continue traveler fabrication and erecting falsework in preparation for the long span work, crossing I-90; start installing mechanically stabilized earth (MSE) walls at Bellevue interchange.

Bellevue Way SE: Continue drill shaft, soldier pile, retaining wall work and install lid over trench near Winters House.

S. Bellevue Sta./P&R: Continue construction of parking garage; pouring of level two and installing mechanical, electrical and plumbing; continue station platform work.

Wye-to-East Main: Start removing roadway at 112th undercrossing and excavation of trench. Continue track wall work and abutment work at Alcove Creek

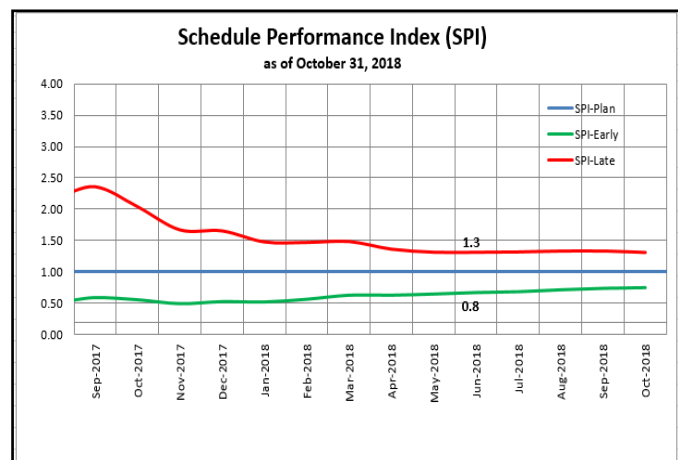
Schedule Summary

The critical path for this project currently runs 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	2019				2020			
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
E320 Construction	05-Dec-18 A	30-Oct-20	[Gantt bar spanning from Dec 2018 to Oct 2020]							
Milestones and Summary	05-Dec-18 A	30-Oct-20	[Gantt bar spanning from Dec 2018 to Oct 2020]							
Contract Milestones	05-Dec-18 A	30-Oct-20	[Gantt bar spanning from Dec 2018 to Oct 2020]							
Limited Notice to Proceed	05-Dec-18 A		[Gantt bar spanning from Dec 2018 to Dec 2018]							
Notice to Proceed	13-Feb-17 A		[Gantt bar spanning from Feb 2017 to Feb 2017]							
Milestone 3A - Clear & Grub Swaylocken (Stat of Wetland Fil' Work+365 D)		03-Dec-18*	[Gantt bar with diamond marker in Q4 2018]							
Milestone 1 - (Alternate) Phase B21 Not Used		23-Jan-19	[Gantt bar with diamond marker in Q1 2019]							
Milestone 3B - Clear & Grub Coal Creek		12-Aug-19*	[Gantt bar with diamond marker in Q3 2019]							
Milestone 4 - SIDT & SCADA Complete (NTP+1160D)		29-Jan-20*	[Gantt bar with diamond marker in Q1 2020]							
Milestone 5 - Acceptance of South Bellevue Station (NTP+1215D)		19-Jun-20*	[Gantt bar with diamond marker in Q2 2020]							
Milestone 2 - Final Restoration of Bellevue Way (Start+897D)		19-Jul-20	[Gantt bar with diamond marker in Q3 2020]							
Milestone 6 - Required Substantial Completion (NTP+1340D)		30-Oct-20*	[Gantt bar with diamond marker in Q4 2020]							
Construction-1	21-Apr-17 A	07-Oct-20	[Gantt bar spanning from Apr 2017 to Oct 2020]							
Mobilization	21-Apr-17 A	18-Jul-18 A	[Gantt bar spanning from Apr 2017 to Jul 2018]							
Area A - I-90 Mainline to Bellevue Interchange - Sta EB405+54 to EB438+20	18-Jun-17 A	26-Aug-20	[Gantt bar spanning from Jun 2017 to Aug 2020]							
Area B - Bellevue Way SE, SE 30th St to 112th Ave SE Wye - Sta EB438+20 to EB476+75	30-May-17 A	07-Oct-20	[Gantt bar spanning from May 2017 to Oct 2020]							
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 spanning from Jun 2017 to Sep 2020]							
Area D - 112th Ave SE to SE 8th St to Main St - Sta 508+00 to EB528+25	22-May-17 A	03-Sep-20	[Gantt bar spanning from May 2017 to Sep 2020]							
Area E - Coal Creek Stream Enhancement	09-Jul-18 A	12-Aug-19	[Gantt bar spanning from Jul 2018 to Aug 2019]							
Area F - Swaylocken Mitigation	23-Apr-18 A	03-Dec-18	[Gantt bar spanning from Apr 2018 to Dec 2018]							

Schedule Performance Index

The E320 project is roughly 20 months into the projected duration of 44 months and has completed and billed an earned value percentage of roughly 44%. This period, the SPI early is at 0.8 and the SPI late is at 1.3. When evaluating the SPI, it is important to note that the numbers indicate that the Contractor continues to be behind the early finish plans, but maintains ahead of the late curve when compared to the baseline work plan.



Next Period's Activities

I-90 Flyover: Continue wall work and installing falsework for long span, along with long span work over I-90.

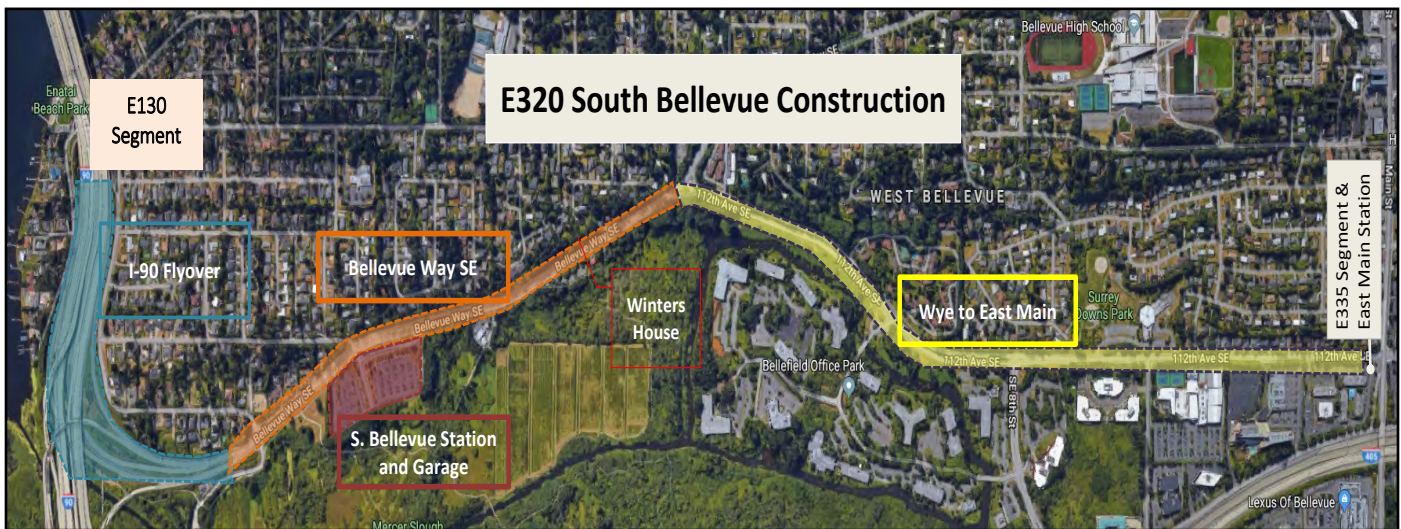
Bellevue Way SE: Continue track slab, soldier pile and excavation work at Winters House.

S. Bellevue Stn/P&R: Continue level two parking garage construction and station platform work.

Wye-to-East Main: Continue track wall work and Alcove crossing abutments.

Closely Monitored Issues

- Working adjacent to wetland areas, environmental compliance concerns.
- Refinement to the three-lane reversible 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	\$1,408,771
Current Contract Value	\$321,267,771
Total Actual Cost (Incurred to Date)	\$144,568,775
Financial Percent Complete	44%
Authorized Contingency	\$38,532,000
Contingency Drawdown	\$1,408,771
Contingency Index	10.4

* \$ Amount excludes betterments and STArt.



Parking garage work—second level

Contract E330 – Downtown Bellevue Tunnel

Current Progress

Tunnel Invert: Completed excavating and grinding. Continued patching, installing drainage mat, applying smoothing layer to invert and installing fiberglass dowels to support reinforcing in invert. Mobilized waterproofing subcontractor and began waterproofing the tunnel invert on the north side.

Tunnel Crown: Continued draining water in the area of drainage pipes at 4th and 110th from inside the tunnel to mitigate the leaks observed in the tunnel crown during rain events. Continued applying smoothing layer.

Between Portals: Continued installing shaft rebar. Finished patching spray applied waterproofing. Formed stair way wall at top of shaft. Continued removing instrumentation on 110th Ave. NE.

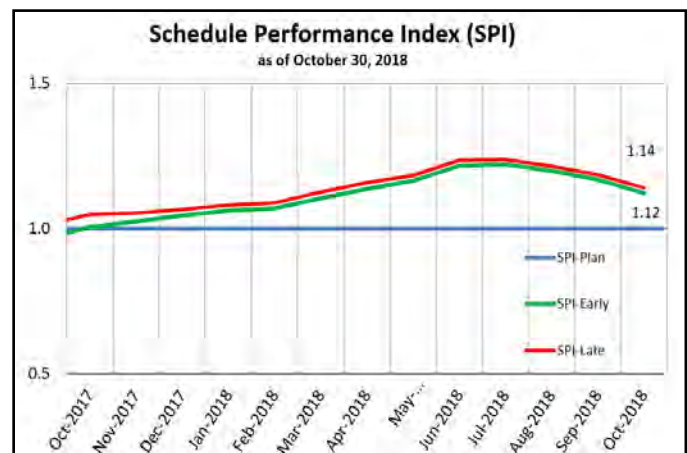
Schedule Summary

The critical path for this contract follows the final tunnel lining and the completion of the South Portal structure. The Contractor is now forecast to achieve Substantial Completion ahead of their contractual requirements.

Activity Name	Start	Finish	2019							
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	
E330 Construction	15-Dec-15 A	01-Jun-20								
CONSTRUCTION	15-Dec-15 A	01-Jun-20								
MILESTONES/CONSTRUCTION EASEMENTS	15-Dec-15 A	01-Jun-20								
MILESTONES	15-Dec-15 A	01-Jun-20								
CALCULATED MILESTONES	15-Dec-15 A	01-Jun-20								
L-NTP	15-Dec-15 A									
NTP	08-Feb-16 A									
MLST 1 - Acceptance of the 110th Ave Controlled Low Strength Material Work		14-Oct-16 A								
MLST 2 - Acceptance of CO#006 Work		14-Oct-16 A								
MLST 3 - Substantial Completion of all Work from Station EB 542+64.62 to Station EB 562+47.91		01-Feb-20								
MLST 4 - Substantial Completion Total Contract		01-Jun-20								
MOBILIZATION	08-Feb-16 A	14-Jun-19								
SITEWORK	29-Feb-16 A	01-Jun-20								
PRECONSTRUCTION	21-Mar-16 A	26-Feb-20								
TRAFFIC CONTROL	25-Mar-16 A	10-Sep-19								
SURVEY & MONITORING	29-Feb-16 A	03-May-18 A								
NORTH PORTAL AREA	13-Jun-16 A	14-Oct-16 A								
SOUTH PORTAL AREA	08-Feb-17 A	08-Apr-17 A								
SKYLINE BUILDING RETROFIT	29-Feb-16 A	01-Jun-20								
TUNNELING	01-Feb-17 A	07-Jan-20								
EXCAVATION	01-Feb-17 A	20-Jul-18 A								
FINAL TUNNEL LINING	20-Jul-18 A	03-Oct-19								
FINAL TUNNEL FINISHES	04-Oct-19	07-Jan-20								
MID TUNNEL	08-Mar-18 A	11-Sep-19								
DEMOBE	13-Mar-17 A	19-May-20								

Schedule Performance Index

This period, the SPI Early is at 1.12 and the SPI Late is at 1.14. Both early and late SPIs are well ahead of the baseline work. These numbers indicate that the Contractor achieved earlier than planned tunnel excavation completion as a result of good ground conditions and elimination of spiles during excavation. However, substrate condition and surface water from North Portal impacted the waterproofing production this month, and placement of the shaft shotcrete is behind planned.



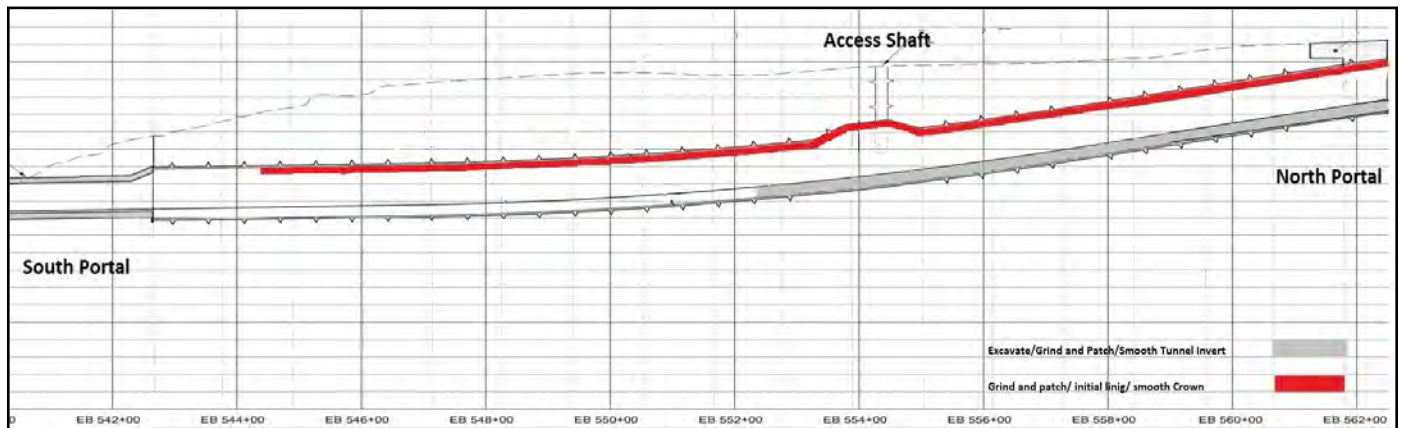
Next Period's Activities

- **Tunnel invert** : Continue installing invert drainage mat and smoothing layer. Continue installation of spray applied waterproofing in the invert and place protection layer in the invert.
- **Tunnel Crown**: Complete applying smoothing layer and patching on crown. Commence waterproofing of the crown.
- **Between Portals**: Begin placing shotcrete in mid-tunnel shaft.
- **South Portal**: prepare subgrade and place some of the mud slab for the South Portal cut-and-cover.

Closely Monitored Issues

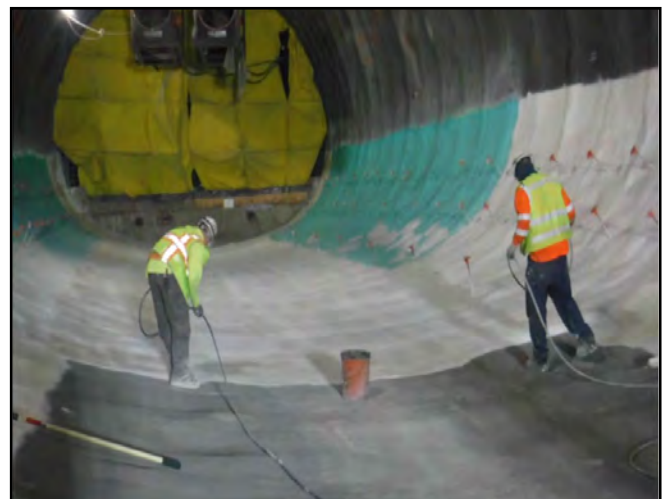
- Sound Transit working through acceptance of required request for deviation for the use of PVC conduit vs. GRS conduit in the tunnel invert. Design team finds the use of PVC acceptable; however, Sound Transit Quality Assurance has indicated the use of PVC conduits is not allowed per National Fire Protection Association in a tunnel. ST is still reviewing the request and its potential impact on other ST tunnels. ST is drafting a concurrence letter to the City of Bellevue that PVC conduit, when encased in concrete, is allowed to be used in the tunnel. Proceeding with GRS in invert until issue is resolved.

E330 Tunnel invert excavation/ place crown smoothing layer (As of 10/26/2018)



Cost Summary

Preset Financial Status	Amount
E330 Contractor– Guy F Atkinson Construction, LLC.	
Original Contract Value	\$121,446,551
Change Order Value	\$350,174
Current Contract Value	\$121,796,725
Total Actual Cost (Incurred to Date)	\$92,687,873
Financial Percent Complete	76%
Authorized Contingency	\$12,144,655
Contingency Drawdown	\$350,174
Contingency Index	26.3



Spray-applied waterproofing in tunnel near North Portal

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

Current Progress

Area 1: S Portal/ East Main Station: Installed pigmented sealer for precast panels for sound walls. Continued landscaping and slope restoration above rock walls at East Main Station.

Area 3: N Portal/ City Of Bellevue parking: Continued wall reinforcing for the North Portal cut-and-cover structure and commenced wall concrete placements.

Area 4: Aerial Guideway: Placed base slab concrete and continued reinforcing stem wall for long span over I-405. Continued work on aerial guideway such as: placed re-steel for deck, framed overhang and soffit, placed concrete for diaphragm.

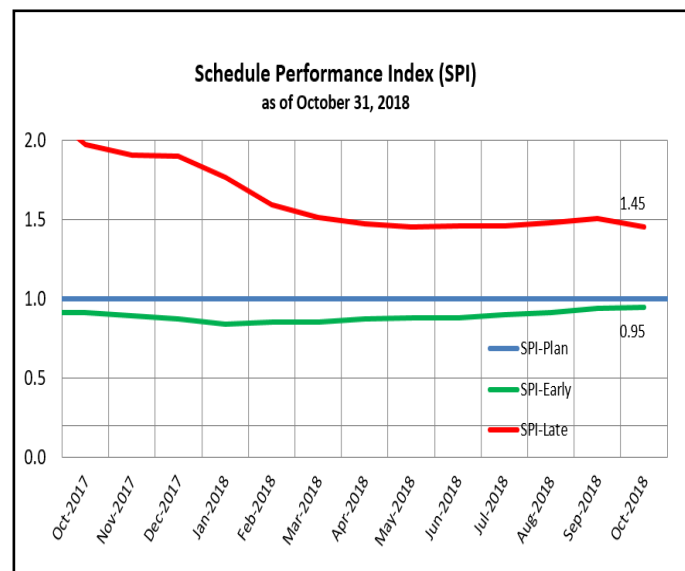
Area 5: Pine Forest: Continued work on cast in place track walls at the Kirkland wye, sub-ballast and permanent fencing.

Area 6: 120th-124th Trench/Station: Continued setting wall forms and pouring footing and station base slabs; plumbing and electrical infrastructure work.

Activity Name	Start	Finish	2019				2020					
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
E335 Construction	24-Apr-17 A	18-May-21										
Milestones	04-May-18 A	18-May-21										
Contract Milestones	30-Sep-18 A	18-May-21										
Milestone #1 - C complete North Portal Headwall Temporary Shoring		30-Sep-18 A										
Milestone #2 - C complete SDTs for Interface to SCADA		14-Jan-20*										
Milestone #3 - C complete Trackway and Stations for Primary Systems Access - BTC to EOF		13-May-20*										
Milestone #4 - C complete SEM Tunnel Trackwork for Primary Systems Access		16-Jan-21*										
Milestone #5 - C complete All Trackway and Stations for Primary Systems Access		18-Mar-21*										
Milestone #6 - Substantial Completion of all Work		18-May-21*										
Calculated Milestones	04-May-18 A	29-Apr-21										
E335 Achieves Milestone #1		04-May-18 A										
E335 Achieves Milestone #2		13-Jan-20										
E335 Achieves Milestone #3		19-May-20										
E335 Achieves Milestone #4		16-Jan-21										
E335 Achieves Milestone #5		14-Mar-21										
E335 Achieves Milestone #6		29-Apr-21										
Construction	24-Apr-17 A	30-Mar-21										
Mobilization	24-Apr-17 A	24-Apr-17 A										
Area 1: E. Main Station to South Portal (531+55 - 538+00)	11-Oct-17 A	30-Mar-21										
Area 2: South Portal to SEM Tunnel (538+00 - 562+47.91)	01-Nov-18	30-Mar-21										
Area 3: North Portal to Aerial Guideway (562+50 - 568+45)	24-Apr-17 A	30-Mar-21										
Area 4: Aerial Guideway (568+45 - 606+59)	24-Apr-17 A	30-Mar-21										
Area 5: Pine Forest to 120th (606+59 - 619+00)	07-Jul-17 A	30-Mar-21										
Area 6: 120th - End of Project (619+00 - 634+99)	01-Aug-17 A	17-Apr-20										
Testing and Commissioning	21-Jan-20	15-Dec-20										

Schedule Performance Index

This period, the SPI early is at 0.95 and the SPI late is at 1.45. The Contractor continues to lag the early plan, but well ahead of the late finish plan when compared to the baseline work. Numbers are supported by the fact that delivery of rail, ties and special track work are pushed later than baselined. Installation of emergency guardrail and acoustical panels on the aerial guideway is later than shown on the baseline, as this follows the guideway work, which is behind compared to the baseline.



Link Light Rail East Link Extension

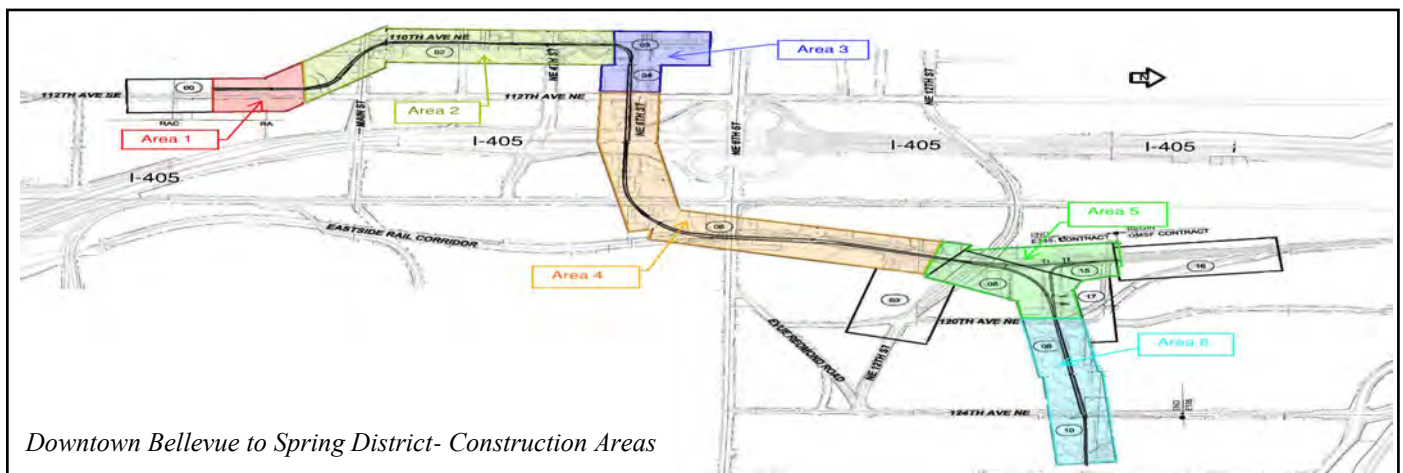


Next Period's Activities

- **Area 3:** North Portal/ City Of Bellevue parking: Continue wall concrete placements for the cut-and-cover structure. Install formwork and reinforcing for Walls at Bellevue Downtown Station.
- **Area 4:** Aerial Guideway: Continue formwork, reinforcing for stem walls over I-405. Continue place re-steel for deck and concrete for diaphragm, frame overhang and soffit along aerial guideway.
- **Area 5:** Pine Forest: Commence formwork and reinforcing for the 123rd Ave NE Bridge traffic barriers.
- **Area 6:** 120th-124th Trench/Station: Continue formwork for the 120th Station platform and exterior walls.

Closely Monitored Issues

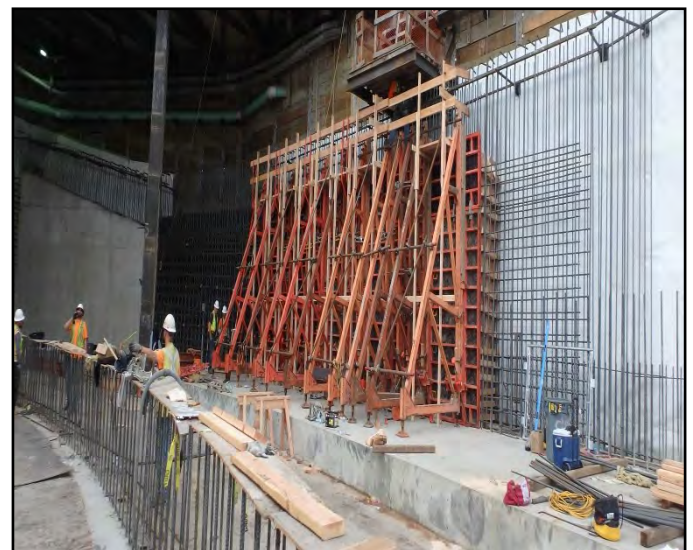
- Completion of the undercrossing at 124th Avenue NE continues to be challenged due to SCL utility easement concerns. To reduce schedule and cost impacts ST and SCL are negotiating an “early work” consent.
- The City of Bellevue’s (COB) Zone 1B Contractor has demobilized from the Kirkland Wye area, leaving the grades higher than shown in the E335 drawings. The City does not believe it has responsibility for the removal costs of the additional soils. The Project Director and City are discussing the issue. “Summary positions” have been developed for the ST/COB Steering Committee to review.



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	\$5,335,948
Current Contract Value	\$399,134,158
Total Actual Cost (Incurred to Date)	\$145,142,748
Financial Percent Complete	36.0%
Authorized Contingency	\$19,689,911
Contingency Drawdown	\$5,335,948
Contingency Index	1.3



North Portal Wall rebar and form. (Area 3)

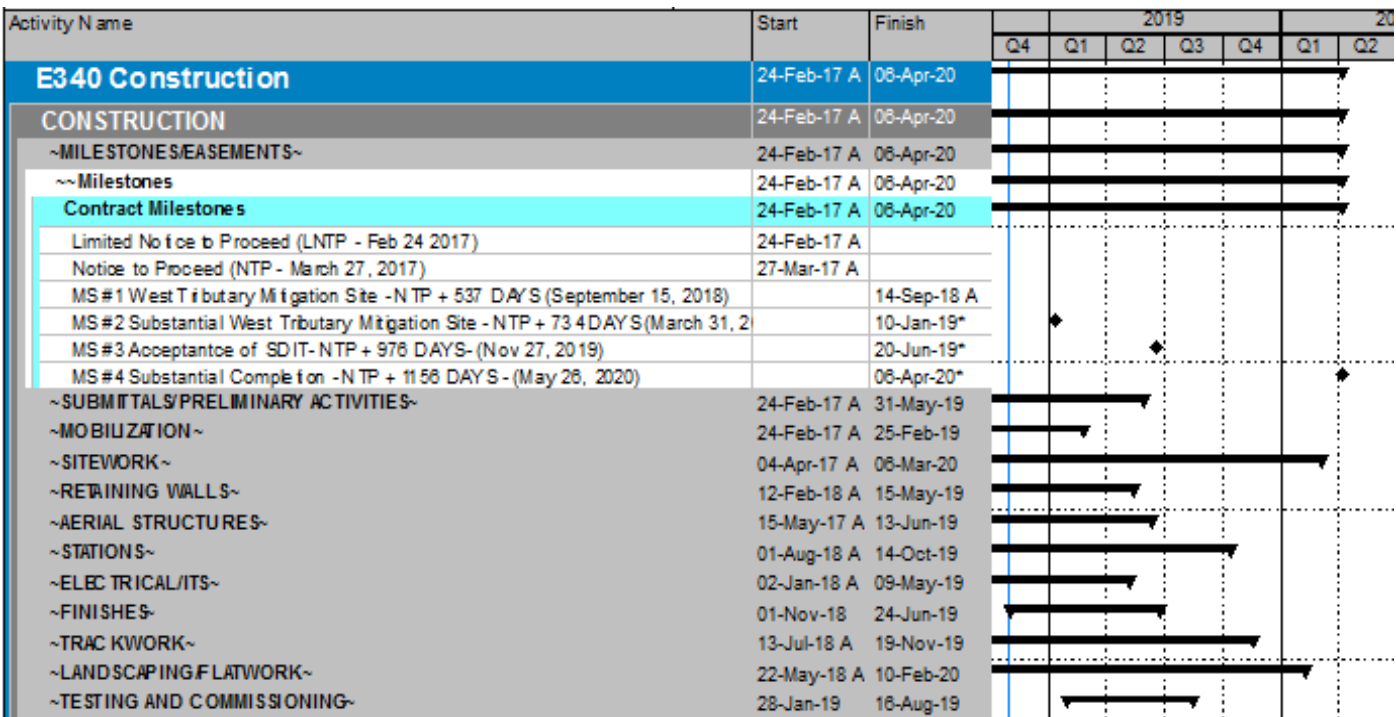
Contract E340 – Bel-Red

Current Progress

Ongoing closure at NE Spring Blvd (132nd Ave to 134th Ave). Spring Blvd Wall: form, strip, and pours are on hold pending completion of remaining footing pours; 2 of 5 footing sections and 6 of 13 wall panels are completed to date. Installing false decking, form & pour girder stops and diaphragms, and form Guideway OCS (Overhead Catenary System) and overhangs. South Station Wall: 4 of 5 footing sections are complete; wall panel placement continues; 2 of 13 panels have been placed to date. Continued sanitary sewer installation on 136th Place. Resumed placement of embankment on NE Spring Blvd west of 134th Ave NE.

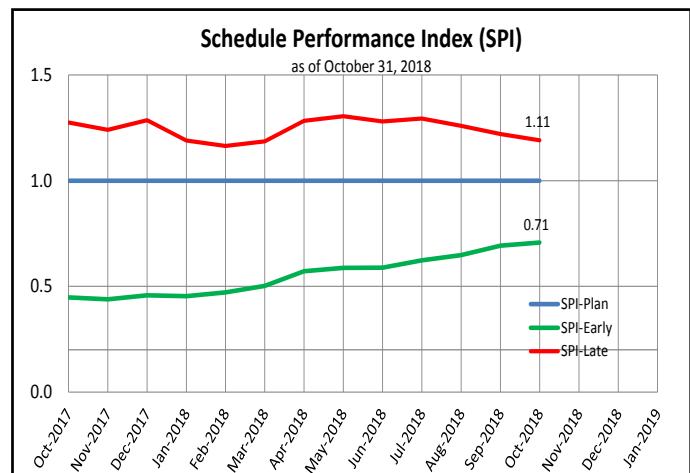
Schedule Summary

Critical path of this project now runs through the casting and placement of track wall along 136th, followed by trackwork. The Contractor is trending to finish ahead of their contractual milestone.



Schedule Performance Index

This period, the SPI early is at 0.71 and the SPI late is at 1.11. The late index indicates that the contractor continues to be ahead of the planned finish work; while the SPI early measures the Contractor's planned early finish lags. Some of the contributing factors to the SPI late index are the continued progress of the retaining wall as well as aerial guideway superstructure constructions; the completion of the NE 20th & 136th PI intersection permanent signal conduit and box installation, except the North / South Signal Conduit. Continued Sanitary Sewer work on 136th Pl., working from North to South.



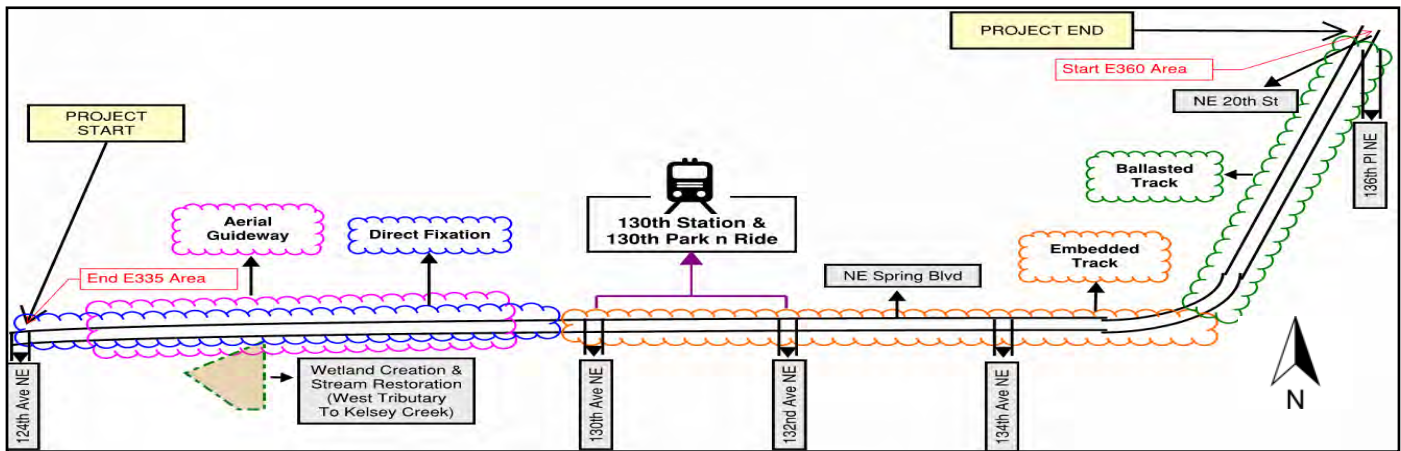
Next Period's Activities

- For the aerial guideway, continue forming and pouring girder stops and diaphragms, form guideway OCS. (Overhead Catenary System) supports and overhangs.
- Form and pour wall panels on South Station Wall. Excavate for remaining footing section.
- Continue storm drain installation on NE Spring Blvd.
- Continue excavation and placement of Wall as well as forming and pouring wall footings and panels at NE Spring Blvd footings.
- Grading and begin placement of controller pad for the signal at 132nd Ave NE.

Closely Monitored Issues

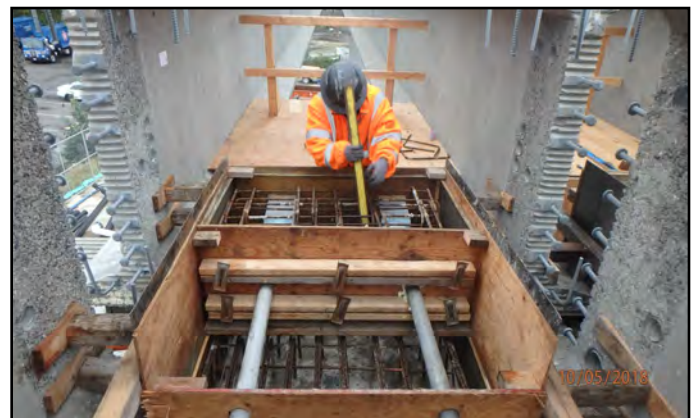
- Delayed start on west end of the project: West Tributary, Mid-Lakes Pump Station and late start on the 124th Ave Bridge project has potential to impact to the overall project schedule.
- Working with the Contractor to determine a path forward on the differing site conditions relative to tie-backs on Soldier Pile Wall 11 between 124th NE to 130th NE. Installed a monitoring well to observe the water table and conditions.
- Working with the Contractor and Third Party Utilities to identify and find remedies for utility conflict prior to these conflicts affecting the work schedule.

E340 Construction Work Areas



Cost Summary

Present Financial Status	Amount
E340 Contractor– Max J Kuney	
Original Contract Value	\$93,170,012
Change Order Value	\$2,744,149
Current Contract Value	\$95,914,161
Total Actual Cost (Incurred to Date)	\$43,995,230
Financial Percent Complete	46%
Authorized Contingency	\$9,317,000
Contingency Drawdown	\$2,744,149
Contingency Index	1.56



Cleaning up construction joint on girder stop prior to concrete placement looking East.

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

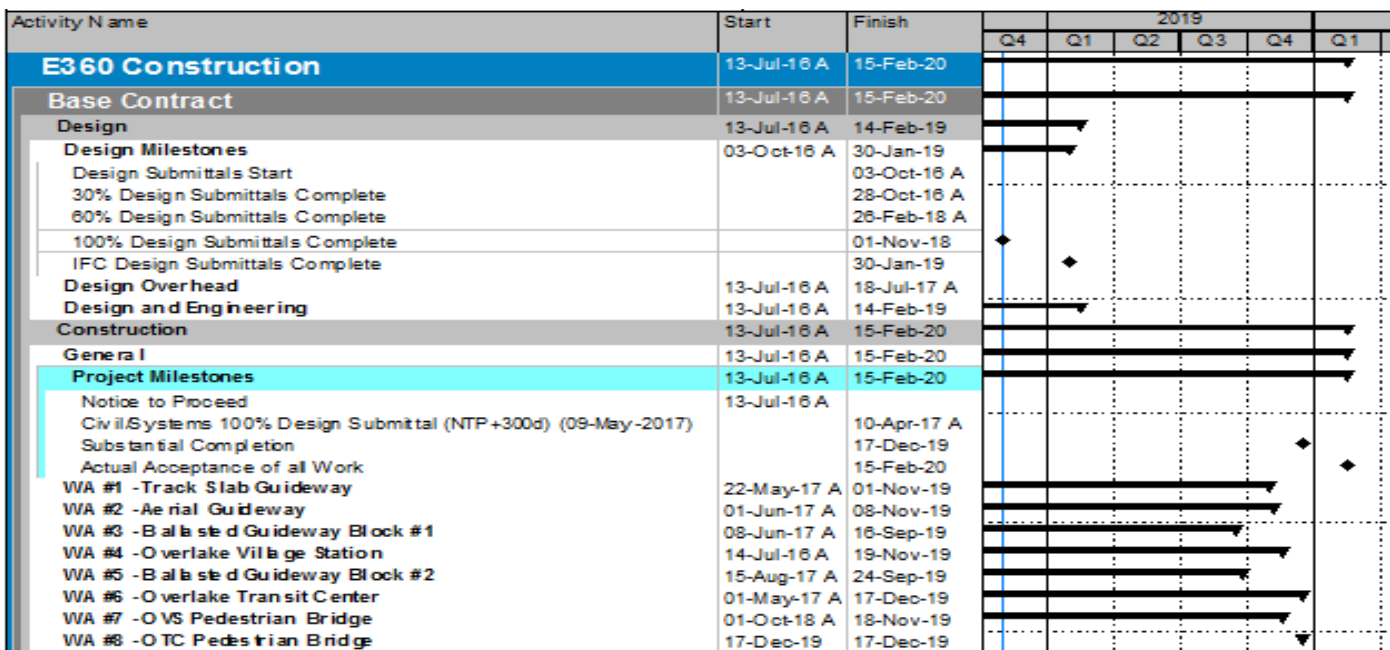
Current Progress

Design: Advanced design packages for the following areas: SR520 Permanent Roadway IFC was submitted, OVS Ped Bridge Superstructure IFC was submitted, and Landscaping—Guideway 100% submittal is in comment resolution.

Construction: Work Area (WA) #1 MSE abutment wall construction continues. Aerial guideway structures work continued in WA #2 with one columns, and four caps placed. Girder erection resumed with two spans set. Superstructure work for diaphragms and precast panels continues. WA #3/4/5 continues sound/barrier wall placement and backfill starting at OVS and working towards Redmond Technology Station (RTS) (walls 16 and B6). OCS pole foundation and system ductbank ongoing. WA #5 continues wall 16 placement and systems duct bank installation. WA #6 continued wall construction for RTS walls and start OTC Garage columns and forming deck beams. Underground utilities work is ongoing along OTC station and east of garage. OVS Pedestrian Bridge construction commenced with foundations at east abutment and 520 median.

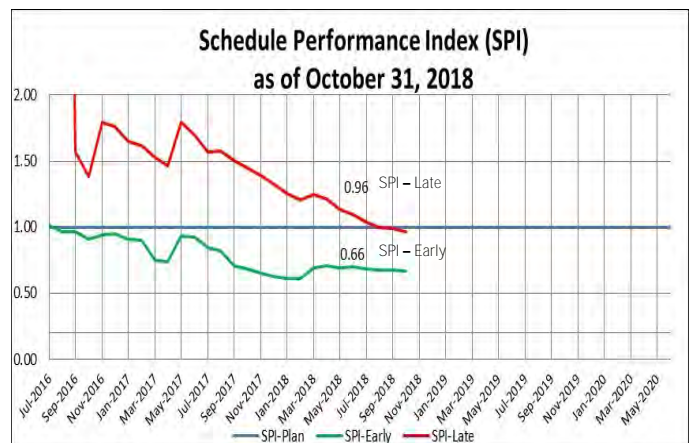
Schedule Summary

The critical path for this project currently goes through the structural work at Redmond Technology Station (formerly Overlake Transit Center). The contractor is currently forecast to complete this contract on schedule.



Schedule Performance Index

This period, the SPI early is 0.66 and SPI late is 0.96. The early SPI value continues to reflect slippage of early finish of baseline plan. ST directed stoppage of RTS Pedestrian Bridge due to Microsoft reevaluation of the bridge has contributed to the slippage as well. Drilled shaft work is complete, there are 2 columns and 3 caps left. Girder work has resumed. Some procurement activities have been rolled into construction activities, which has contributed to lowered late SPI recovery.



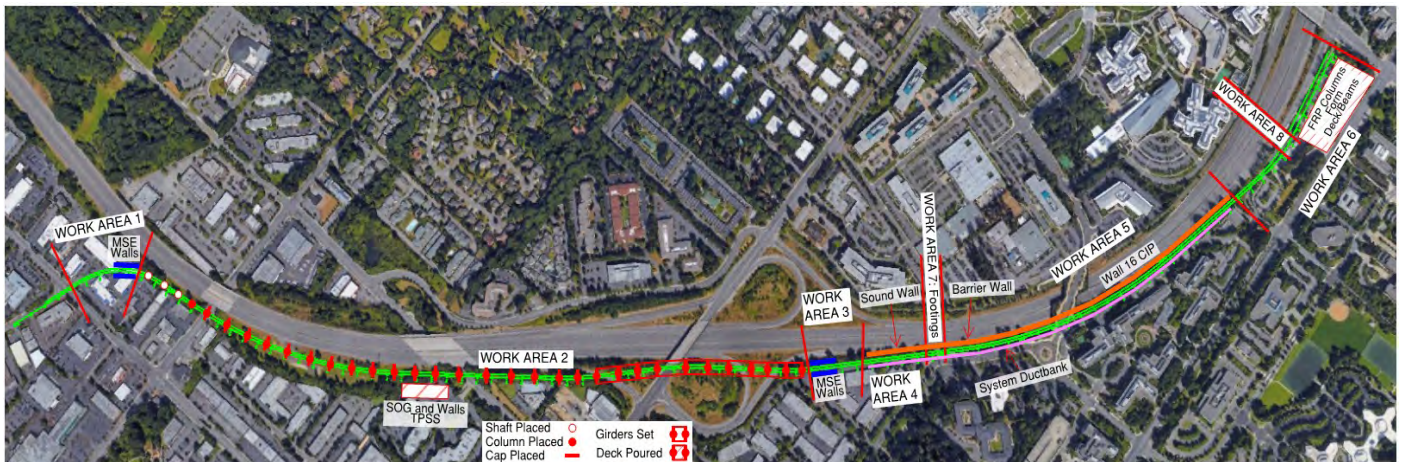
Next Period's Activities

- **Design:** Civil SR520, Landscaping and OV Ped Bridge IFC Validation. 100% development of Sweeper Site.
- **Work Area #1:** Continue MSE wall Construction
- **Work Area #2:** Ongoing column/cap/diaphragms placement and precast panel set. Resume girder erection.
- **Work Area #3/4:** Continue MSE abutment wall, sound wall and OCS foundation placement.
- **Work Area #5:** Continue construction of footings/walls for track wall B5 and 16. Continue OCS placement. Duct bank placement ongoing.
- **Work Area #6:** Continue undergrounding utility construction. Continue garage column placement and start deck forming.

Closely Monitored Issues

- Microsoft designs for an alternative pedestrian bridge. Contract amendment will be required if pursued.
- Contractor, ST and City of Redmond continue to work out permitting issues having commercial impacts.
- Commercial Issues on Sales Tax Increase, Waterline Routing at RTS, North Ancillary Building deletion, OTC Buffer Design, Wall S8 DSC, and As-Built Specification.
- Clearance requirements between the WSDOT Aggregate Disposal Site access road and aerial guideway.
- Geotechnical special inspections and design compliance during construction (monthly site visits).

E360 Construction Work Areas



Cost Summary

Present Financial Status	Amount
E360 Contractor— Kiewit-Hoffman	
Original Contract Value	\$225,336,088
Change Order Value	\$1,448,848
Current Contract Value	\$226,784,936
Total Actual Cost (Incurred to Date)	\$115,186,756
Financial Percent Complete	50.8%
Authorized Contingency	\$22,533,609
Contingency Drawdown	\$1,448,848
Contingency Index	6.8



Redmond Technology Station Site Construction.

Excludes Betterment

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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 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 \$153M (Baseline October 2018)

Schedule Revenue Service: December 31, 2024



Map of Downtown Redmond Link Extension

Key Project Activities

- Sound Transit Board adopted the Downtown Redmond Link Extension baseline schedule and budget.
- Progress project through Phase Gate 4.
- Continued partner agency agreements negotiations. Focusing on impact mitigation, staffing resources, permitting and design preferences.
- Completed review of design-build statements of qualifications and conducted interviews.
- Continued drafting of RFP for the Design Build contract package for DRLE.
- Reached agreement on project permitting plan with the City of Redmond - draft Project Administration Agreement for review by Redmond City Council and ST Board.
- Submitted Joint Aquatic Resources Permit Application (JARPA) to the US Army Corp of Engineers and Department of Ecology.
- Continued environmental due diligence investigation on ROW parcels.

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. 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 October 2018, the Downtown Redmond Link Extension Baseline Budget was approved for \$1.53B; however, due to the timing and some technical difficulties, the budget details will be uploaded at the earliest in November 2018.

This period, the Redmond Link project incurred approximately \$1M of expenses bringing the total expenditure to date from \$22.6M to \$23.6M. Preliminary Engineering and Administrative activities are the main cost drivers during this period. Agency Administrative activities are primarily staffing cost.

Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$4.9	\$4.3	\$4.1	\$4.9	\$0.0
Preliminary Engineering	\$21.3	\$17.9	\$16.6	\$21.3	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$2.0	\$1.7	\$0.3	\$2.0	\$0.0
3rd Party Agreements	\$2.8	\$0.3	\$0.3	\$2.8	\$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	\$147.1	\$8.0	\$2.3	\$147.1	\$0.0
Total	\$178.0	\$32.2	\$23.6	\$178.0	\$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	\$140.0	\$8.0	\$2.3	\$140.0	\$0.0
80 Professional Services	\$29.4	\$24.2	\$21.3	\$29.4	\$0.0
90 Unallocated Contingency	\$8.6	\$0.0	\$0.0	\$8.6	\$0.0
Total (10 - 90)	\$178.0	\$32.2	\$23.6	\$178.0	\$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 of towards the anticipated 4th QTR 2018’s baselining of the project. The quantitative risk assessment report is completed and finalized.

The highest risk areas continues to be:

- Property acquisition - market conditions; protracted durations of attaining control of properties; evolving design impacts property needs.
- Permitting and 3rd 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; stormwater discharge requirements by King County Parks; protracted negotiation with 3rd parties.
- Construction market conditions - inflationary pressure due to potential shortages of labor; higher materials pricing due to demand as well as regulations (tariffs and taxes).
- Agency staffing capacity - Developing and mobilizing resources and coordinating start up activities across multiple Link extensions within a short time frame.

Project Schedule

The project schedule is presented below. In October, the Sound Transit Board approved the baseline budget and schedule. Property acquisitions have begun. The RFP is anticipated to be issued in November. Project is currently forecast for completion near the end of 2024.

Activity Name	Start	Finish								
			2019	2020	2021	2022	2023	2024		
Downtown Redmond Link Extension - Preliminary Engineering	15-Dec-16 A	12-Feb-20	█	█						
Downtown Redmond Link Extension - Preliminary Engineering & Bridging Documents	15-Dec-16 A	12-Feb-20	█	█						
Downtown Redmond Link Extension - Right of Way	27-Dec-17 A	14-Dec-20		█	█					
Downtown Redmond Link Extension - Permits & Third Party Agreements	01-Jun-18 A	09-Jun-20		█	█					
Downtown Redmond Link Extension - Construction	05-Oct-17 A	31-Dec-24			█	█	█	█	█	█
Downtown Redmond Link Extension - DBPM Procurement	05-Oct-17 A	11-Jun-18 A		█						
Downtown Redmond Link Extension - Design-Build Procurement	01-Jun-18 A	19-Sep-19		█						
Downtown Redmond Link Extension - Design-Build Contract	20-Sep-19	31-May-24			█	█	█	█	█	█
Downtown Redmond Link Extension - Rail Activation/Close out	01-Jun-24	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
89	87	0	0	1514	0
<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>					

- R2018-38 increased Board Approved by 23 parcels.
- Total Acquisitions was increased by 1 parcel needed for the project as a result of modifications to the project since the 2011 Record of Decision (ROD).

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.
- Contributed project updates to the City of Redmond’s quarterly newsletter “Focus.”

Sound Transit Board Actions

Board Action	Description	Date
R2018-37	Adopts the Downtown Redmond Link Extension (DRLE) baseline schedule and budget by increasing the authorized project allocation to date by \$1,351,974,000 from \$178,026,000 to \$1,530,000,000; and establishing a project revenue service date of December 31, 2024.	10/25/2018
R2018-38	Acquire certain real property interests, including acquisition by condemnation to the extent authorized by law, and to reimburse eligible relocation and reestablishment expenses incurred by affected owners and tenants as necessary for DRLE.	10/25/2018
M2018-119	Execute stipend agreements with contractors selected to submit proposals for a design-build contract for the DRLE for a total authorized amount not to exceed \$3,900,000, and contingent on Board approval of Resolution No. R2018-37 authorizing the DRLE baseline schedule and budget.	10/11/2018

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),



Map of Project Alignment

Key Project Activities

- Presented Level 2 technical evaluation results to the Elected Leadership Group (ELG) on October 5th. ELG recommended alternatives to carry forward into Level 3 evaluation.
- Briefed Sound Transit Capital Committee and Board on ELG recommendations.
- Commence technical work required to support the Level 3 evaluation of alternatives development process, including development of end-to-end alternatives corresponding to the ELG’s recommendations.
- Execute a contract amendment with HNTB to provide a speed and reliability study for RapidRide C and D Improvements.
- Continued engagement with FTA, US Coast Guard, DAHP, WSDOT, Port of Seattle, King County, BNSF and Tribes regarding alternatives development process and key design, permitting, construction and operational feasibility issues.
- Continued coordination with departments and work groups within the City of Seattle regarding engineering, station planning, permitting, potential impacts and external engagement.
- Continued outreach to neighborhood and stakeholder groups throughout the project corridor.

Project Cost Summary

The West Seattle and Ballard Link Extensions are voter-approved projects under the ST3 Plan. The Current 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, it is anticipated that the project would incur approximately \$25M in 2018 for alternatives development and evaluation; conducting feasibility studies on key project scope assumption in the ST3 Plan, 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	\$4.7	\$4.0	\$63.1	\$0.0
Preliminary Engineering	\$205.4	\$24.5	\$17.2	\$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	\$1.1	\$0.0	\$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	\$0.1	\$0.1	\$6.0	\$0.0
Total	\$285.9	\$30.4	\$21.3	\$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	\$0.1	\$0.1	\$5.0	\$0.0
80 Professional Services	\$263.4	\$30.3	\$21.2	\$263.4	\$0.0
90 Unallocated Contingency	\$17.5	\$0.0	\$0.0	\$17.5	\$0.0
Total (10 - 90)	\$285.9	\$30.4	\$21.3	\$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:

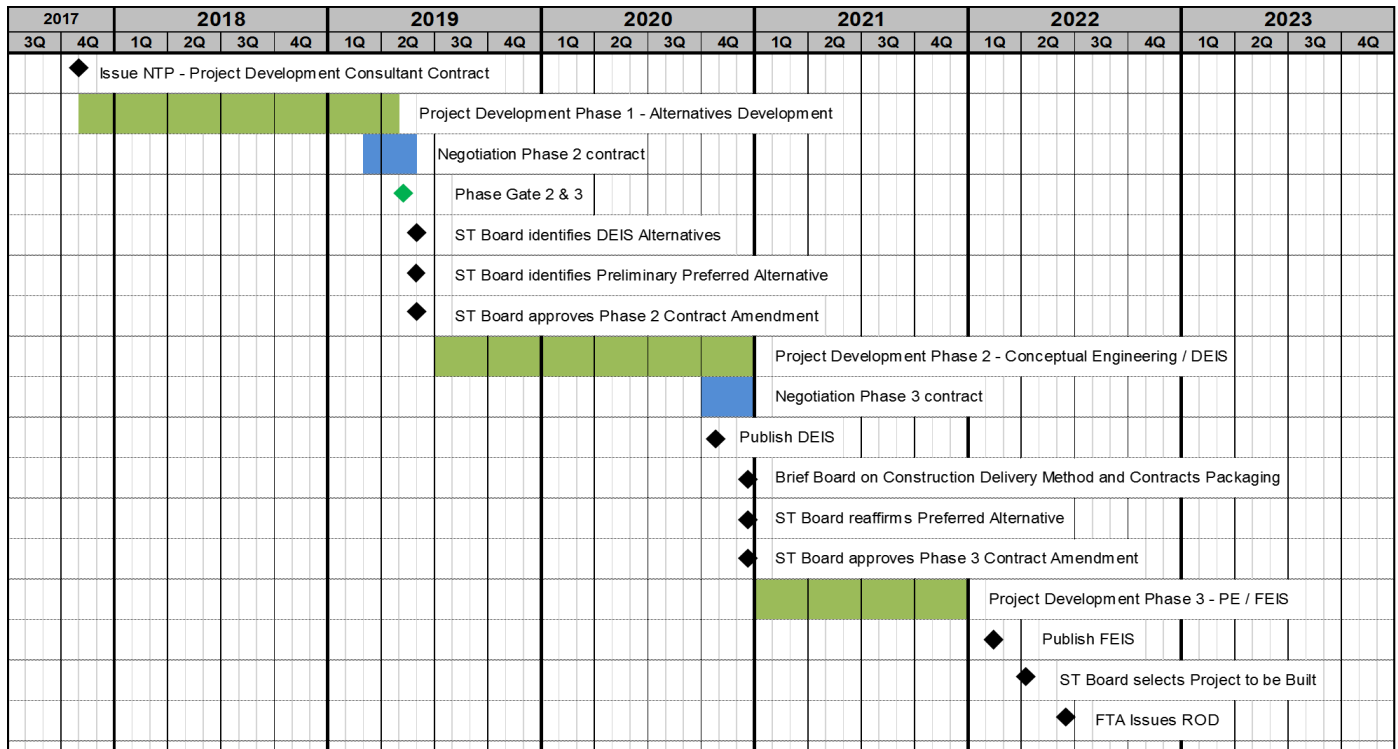
- Reaching stakeholder consensus on a preferred alternative;
- Complexity of alignments in constrained environment with challenging topography and waterway crossings;
- Complexity associated with tunneling through a mature urban environment;
- Potential construction effects in a constrained environment;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

Project Schedule

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

Final Design is 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

- Continued outreach to neighborhood and stakeholder groups throughout the project corridor.
- Published news and project updates, including ELG’s recommendations for Level 3 alternatives on Sound Transit Website.

Sound Transit Board Actions

Board Action	Description	Date
R2018-31	Amends the Adopted 2018 Budget to establish one of the early ST3 deliverable projects by (a) establishing the project and project name as RapidRide C and D Improvements, (b) establishing the project allocation to date through the completion of the preliminary engineering phase in the amount of \$2,350,000, and (c) establishing a 2018 Annual Budget in the amount of \$350,000.	9/27/2018
M2018-101	Authorizes the chief executive officer to execute a contract amendment with HNTB to provide a speed and reliability study for RapidRide C and D Improvements in the amount of \$599,000, for a new total authorized contract amount not to exceed \$27,452,221.	9/27/2018

Link Light Rail

S. 200th Link Extension

Project Summary

Scope

Limits South 200th Link Extension consists of 1.6-mile extension of light rail from the SeaTac/Airport Station to South 200th Street

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

Stations Angle Lake Station is located at South 200th Street

Systems Signals, track electrification, and SCADA communications

Budget \$383.2 Million

Schedule Revenue Service began on September 24, 2016



Map of S. 200th Link Extension

Key Project Activities

- **Design Build (DB) Guideway and Station (S440):** Contract closeout and Final Acceptance are pending.
- **DB Parking Garage (S445):** Contractor to commence façade repairs this month. Contract closeout and Final Acceptance are pending.
- **Military Road/South 200th Intersection (S446):** WSDOT 1yr plant establishment and agreement closeout is concluding this period.
- **Project Wide:** Conclude project activities by end of 1st QTR 2019; ADA Ramp Agreement pending execution with City of SeaTac.
- CM is working to execute a JOC contract for rail grinding activity that will complete by end of 2018.

Closely Monitored Issues

- **S445:** Garage facade panels require repairs.

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.

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	\$16.1	\$17.1	\$16.3	\$16.3	\$16.5	\$0.6
Preliminary Engineering	\$5.9	\$5.7	\$5.7	\$5.7	\$5.7	\$0.0
Final Design	\$20.0	\$9.5	\$8.7	\$8.7	\$8.7	\$0.8
Construction Services	\$15.1	\$17.3	\$17.3	\$17.1	\$17.1	\$0.2
3rd Party Agreements	\$6.9	\$7.1	\$5.7	\$3.8	\$3.3	\$3.7
Construction	\$275.7	\$282.9	\$239.7	\$238.6	\$243.1	\$39.8
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$43.5	\$43.5	\$38.1	\$38.0	\$38.1	\$5.5
Capital Total	\$383.2	\$383.2	\$331.5	\$328.3	\$332.6	\$50.6
Finance Cost	\$0.0	\$0.0				
Project Total	\$383.2	\$383.2	\$331.5	\$328.3	\$332.6	\$50.6

The overall project Estimated Final Cost (EFC) for this period reflects \$332.6M, a savings projection of \$50.6M. This period incurred cost was increased by approximately \$0.02M, of this \$0.014M is ST staff time in Administration Phase and the remainder is minor closeout construction contract activity in the Construction Phase.

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

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$144.8	\$133.0	\$100.3	\$100.3	\$109.4	\$23.6
20 Stations	\$46.4	\$51.7	\$42.1	\$42.1	\$42.4	\$9.4
30 Support Facilities: Yards, Shops	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$34.6	\$55.3	\$55.6	\$54.5	\$55.0	\$0.3
50 Systems	\$30.8	\$19.9	\$20.4	\$20.4	\$20.4	-\$0.4
Construction Subtotal (10 - 50)	\$256.6	\$259.9	\$218.5	\$217.4	\$227.1	\$32.8
60 Row, Land, Existing Improvements	\$43.5	\$43.5	\$38.1	\$38.0	\$38.1	\$5.5
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$64.1	\$72.5	\$74.8	\$72.8	\$65.7	\$6.8
90 Unallocated Contingency	\$19.0	\$7.3	\$0.0	\$0.0	\$1.8	\$5.5
Capital Total (10 - 90)	\$383.2	\$383.2	\$331.3	\$328.3	\$332.6	\$50.6
100 Finance Cost	\$0.0	\$0.0				
Project Total	\$383.2	\$383.2	\$331.3	\$328.3	\$332.6	\$50.6

Cost Contingency Management

S. 200th Link Extension was baselined with a total contingency amount of \$75.6M. Overall the Total Contingency decreased by \$23.8M, resulting in a remaining balance of \$51.8M. During this reporting period, there was reduction of \$0.2M from allocated contingency. See below table for details.

Design Allowance (DA): N/A

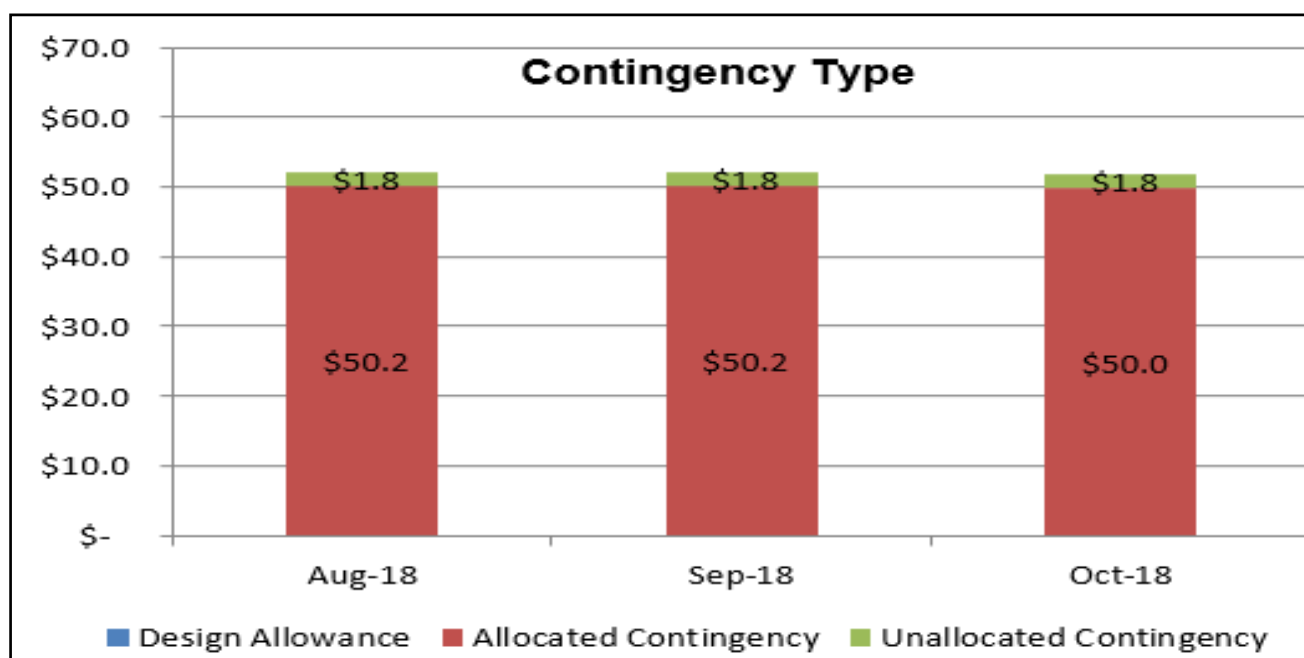
Allocated Contingency (AC): The AC balance is \$50.0M, reflecting a \$0.2M change due to inspection services acquired by an on-call CM contract for Angle Lake Parking Garage façade repairs scheduled to begin next month.

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

Contingency Status

Contingency Type	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$26.7	7.0%	\$ -	0.0%
Allocated Contingency	\$29.8	8.0%	\$50.0	1146.2
Unallocated Contingency	\$19.0	5.0%	\$ 1.8	41.3%
Total	\$75.6	20.0%	\$51.8	1187.5%

Table figures are shown in millions.



Contract S440—Design -Build (Guideway and Station)

Close-out Current Progress

- Contractor finalize closeout items.
- Contractor awaits Final Acceptance.

Next Period’s Activities

- Issue Final Acceptance to Contractor.

Closely Monitored Issues

- None to report.

Cost Summary

Present Financial Status	Amount
S440 Contractor—PCL Civil Contractors, Inc	
Original Contract Value	\$169,000,000
Change Order Value	7,112,438
Current Contract Value	\$176,112,438
Total Actual Cost (Incurred to Date)	\$176,112,438
Financial Percent Complete	100%
Physical Percent Complete	100%
Authorized Contingency	\$13,520,000
Contingency Drawdown	\$6,407,562
Contingency Index	1.9

Contract S445—Design -Build Parking Garage

Close-out Current Progress

Substantial Completion issued on December 21, 2016.

- Contractor finalizing closeout item; garage facade repairs.

Next Period’s Activities

- Complete façade repairs until Feb. 2019.
- Final Acceptance to Contractor is pending.

Closely Monitored Issues

- The Contractor needs to repair garage facade panels.

Cost Summary

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

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

- An updated New Starts Rating financial documentation utilizing the FTA/PMOC recommended P65 risk threshold was submitted to FTA.
- Entry to Engineering (EIE) application was submitted to FTA; PMOC/FTA will review and provide recommendations.
- Project team continues with one-on-one and supplemental meetings with short listed DB teams, and responding to RFIs.
- Project team continues to review ATCs from DB proposers.
- Advanced demolition contract being prepared for execution; approval of insurance certificates is pending.
- ST Board approval occurred this period for WSDOT Construction Funding Agreement.
- Coordination continues with WSDOT regarding the Air Space Lease (ASL) and Temporary Construction Air Space Lease (TCAL) and requires Board approval sometime in 2018; contingent on execution of Construction Funding Agreement.
- ST Board approval occurred this period for City of Des Moines: Transitway, Development, and Funding Agreements.
- Continued working with remaining cities (Kent, FW and SeaTac) to finalize Development and Transit way agreements.
- Continue discussions with Authority Having Jurisdiction (AHJ) to clarify permitting requirement and activities required of DB Contractor; permit database requirement added to Special Conditions in DB contract.
- Continued ROW acquisition and relocation activities; significant increase of completed appraisals this period.
- Volume of residential relocations continue to be a concern due to limited housing availability.
- A new Task Order for Appraisal Review services is pending prepared to assist with backlog.

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 the Sound Transit Board approved the Project Baseline scope, schedule and budget which is reflected in the tables below. Approximately \$0.7M was incurred, of which \$0.2M was for preliminary engineering; \$0.4M incurred for ST staff administration. The remaining expenditures were for construction services, third party services and ROW acquisition and relocation services.

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	\$13.6	\$13.6	\$96.5	\$0.0
Preliminary Engineering	\$43.7	\$43.1	\$43.1	\$43.7	\$0.0
Final Design	\$3.1	\$0.9	\$0.8	\$3.1	\$0.0
Construction Services	\$107.0	\$4.6	\$1.2	\$107.0	\$0.0
3rd Party Agreements	\$27.7	\$3.7	\$2.7	\$27.7	\$0.0
Construction	\$1,831.9	\$0.0	\$0.0	\$1,831.9	\$0.0
ROW	\$341.6	\$38.6	\$19.6	\$341.6	\$0.0
Total	\$2,451.5	\$104.5	\$81.0	\$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	\$523.0	\$0.0	\$0.0	\$523.0	\$0.0
20 Stations	\$318.9	\$0.0	\$0.0	\$318.9	\$0.0
30 Support Facilities	\$5.3	\$0.0	\$0.0	\$5.3	\$0.0
40 Sitework & Special Conditions	\$558.4	\$0.0	\$0.0	\$558.4	\$0.0
50 Systems	\$153.8	\$0.0	\$0.0	\$153.8	\$0.0
Construction Subtotal (10 - 50)	\$1,559.4	\$0.0	\$0.0	\$1,559.4	\$0.0
60 Row, Land	\$341.6	\$38.6	\$19.6	\$341.6	\$0.0
70 Vehicles	\$1.8	\$0.0	\$0.0	\$1.8	\$0.0
80 Professional Services	\$370.7	\$66.0	\$61.4	\$370.7	\$0.0
90 Unallocated Contingency	\$178.1	\$0.0	\$0.0	\$178.1	\$0.0
Total (10 - 90)	\$2,451.5	\$104.5	\$81.0	\$2,451.5	\$0.0

Contingency Management

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

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. During this period no AC was utilized.

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

Contingency Status (Monthly)

Type	Baseline		Current Status	
	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$139.6	5.7%	\$139.6	5.9%
Allocated Contingency	\$232.2	9.5%	\$232.2	9.8%
Unallocated Contingency	\$178.1	7.3%	\$178.1	7.5%
Total:	\$549.9	22.4%	\$549.9	23.2%

Contingency by Type

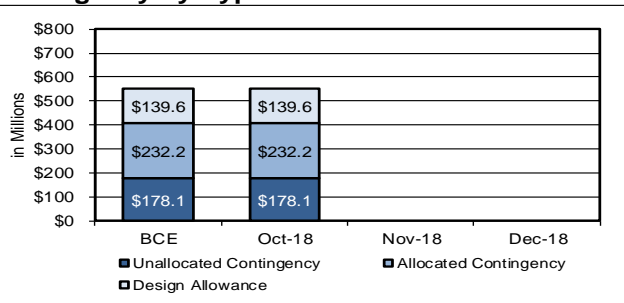
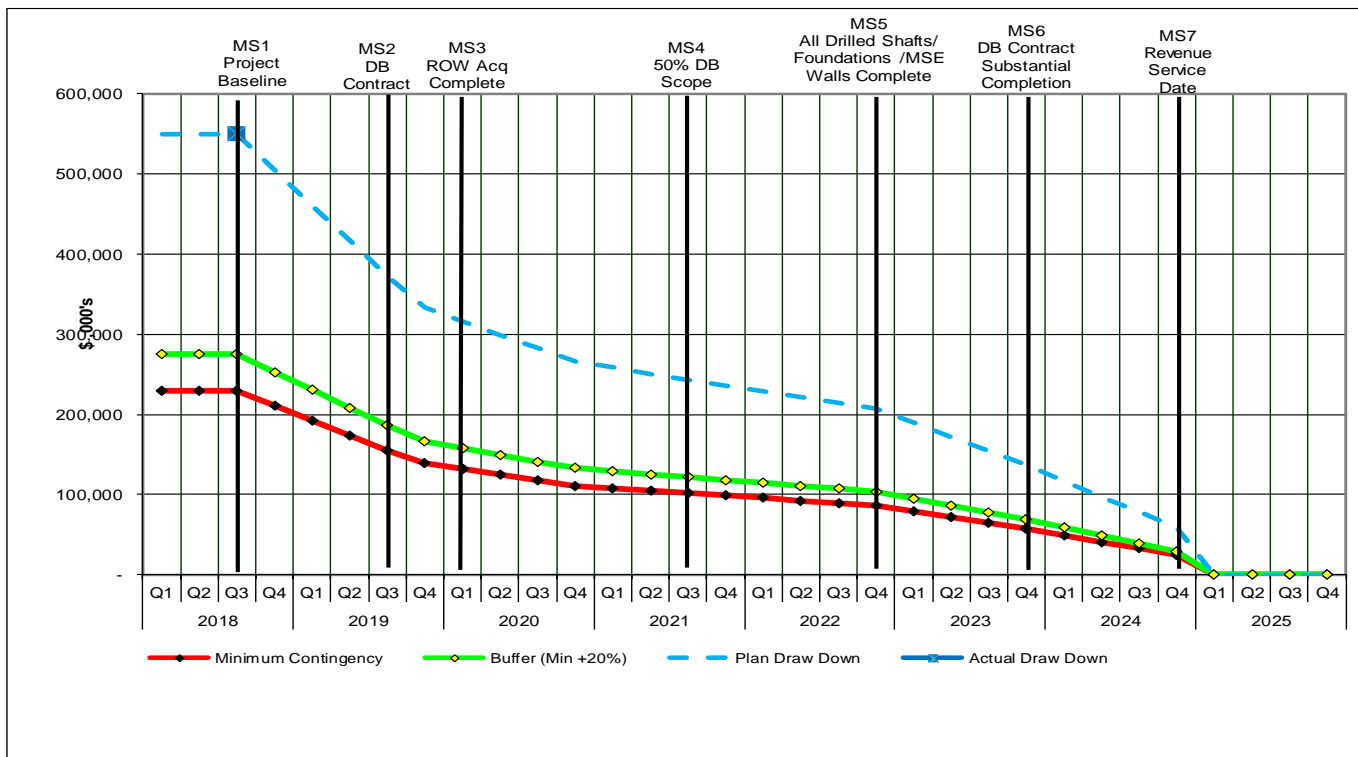


Table figures are shown in millions.

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	
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
257	259	111	20	455	65

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

- Relocations impacts changed because some participants are no longer eligible due to occupant changes.

Community Outreach

- Communication with property owners regarding FWLE route, profile, station areas, acquisition and relocation is ongoing.
- Quarterly FWLE email update sent to over 4000 recipients
- Provided project updates at various outreach events:
 - Refugee Women's Alliance (ReWA) 10/3
 - Kent Cultural Diversity Initiative Group 10/9
 - Kent Library 10/9
- Held Neighborhood Briefings for area residents
 - S 216-220th Neighborhood, Des Moines 10/2
 - Greenfield Home Owners Association (HOA), Kent 10/3
 - Mansion Hills Neighborhood, SeaTac 10/10
 - Camelot Mobile Home Park, Federal Way 10/16



Neighborhood Briefing for Greenfield HOA.

Sound Transit Board Actions

Board Action	Description	Date
M2018-124	Execute City of Des Moines Development Agreement for the Federal Way Link Extension	10/25/18
M2018-123	Execute City of Des Moines Transitway Agreement for the Federal Way Link Extension	10/25/18
M2018-109	Execute WSDOT Construction and Funding Agreement for design and construct certain elements related to SR 509 WSDOT project, as part of ST Federal Way Link Extension Design-Build contract.	10/25/18

Phase 3 Preliminary Engineering (PE)

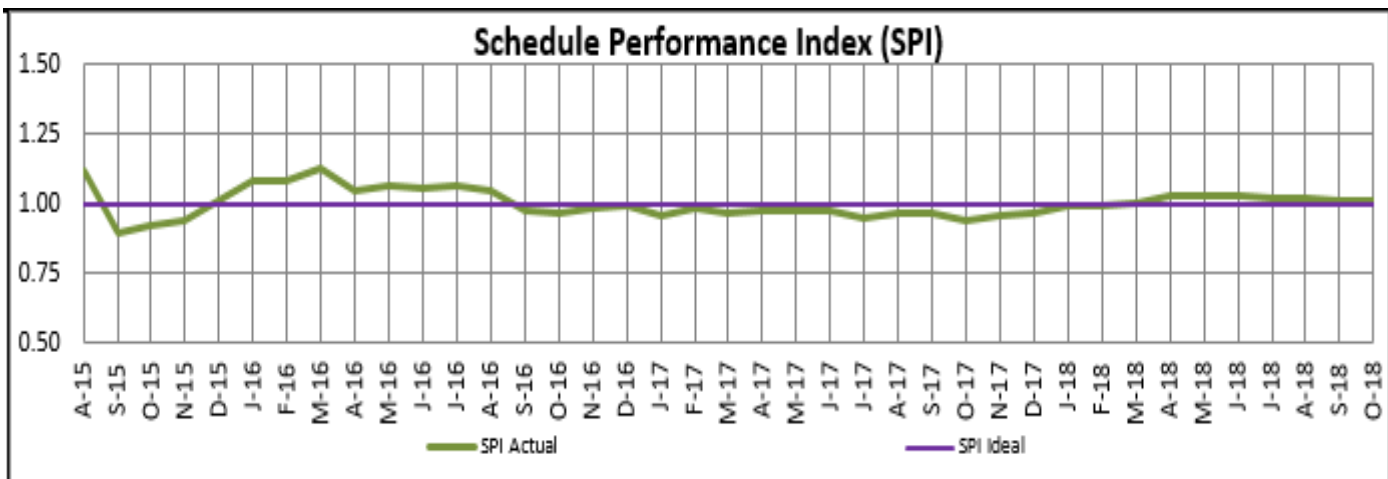
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary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

- Continued addressing review comments and responding to proposed design-builder RFIs.
- Review continued on the ATCs(Alternative Technical Concepts) from DB proposers.
- Continued environmental permitting effort including Critical Areas reports and JARPA (Joint Aquatic Resources Permit Application).
- Continued efforts on the Transit Way and Development Agreements with the cities.
- Coordination continues with WSDOT regarding signing the ASL (Airspace Leases) and TCAL (Temporary Construction Airspace Leases).

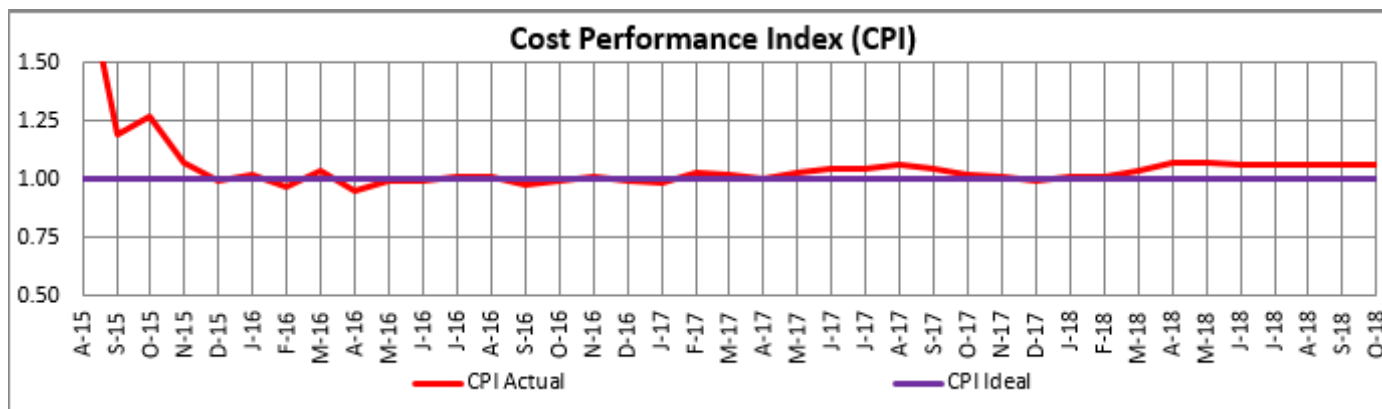
Schedule Performance Index

The cumulative Schedule Performance Index (SPI) is 1.01 through October 2018, indicating the overall amount of work accomplished is as planned. The consultant is fully engaged on the scope, to assist in DB contract RFI responses, environmental permit support and in ROW acquisition support.



Cost Performance Index

Phase 3 expenditures through October 2018 totaled \$34.5 M, approximately 93% of the amended total contract. The Phase 3 percent complete is reported at 98%, with an earned value of \$36.6. The cumulative Cost Performance Index (CPI) is 1.06 showing costs are on track with work accomplished. The Consultant is engaged in assistance of DB contract RFI response, environmental permits, support and in ROW acquisition support.



Cost Summary

Contract (Ph.3 portion)	Cumulative To-date
Amount Invoiced	\$34.5
% Spent	93%
Earned Value	\$36.6M
% Complete	98%
SPI	1.01
CPI	1.06

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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 Final Design and Construction

Budget \$217.3 Million (Baselined September 2017)

Schedule Revenue Service: May 2022



Map of Hilltop Tacoma Link Extension.

Key Project Activities

Construction:

- Contractor continued work on required early submittals including quality management, safety and temporary erosion and sediment control (TESC) plans.
- Contractor commenced potholing along alignment to confirm utility locations.
- Third party advanced utility relocation work continued along the alignment.
- ST staff and representatives from contracting community, including T100 Contractor, attended a labor outreach event in the Hilltop community to identify construction career opportunities on the Sound Transit capital program.
- Staff held quarterly project Fire Life Safety and Security Committee meeting with representatives from City of Tacoma Public Works, Tacoma Fire Dept. and State Safety Oversight in attendance.

Right-of-Way

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

Vehicles

- Held monthly progress meeting with representatives from Brookville Equipment Corporation on Hilltop Tacoma Link Extension LRVs.



Link Light Rail Hilltop Tacoma Link Extension

Project Cost Summary

In September 2017, Sound Transit Board adopted the Hilltop Tacoma Link Extension 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.

Award of the construction contract required phase level budget transfers and were approved at July’s ST Board meeting. The T100 construction contract was executed in August 2018.

This period approximately \$0.21M was incurred, of this most expenditures were due to \$0.17M for ST staff (Admin). We anticipate increasing expenditures for construction beginning next month.

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	\$7.2	\$7.1	\$16.9	\$0.0
Preliminary Engineering	\$5.6	\$5.6	\$5.6	\$5.6	\$5.6	\$0.0
Final Design	\$10.8	\$10.8	\$10.4	\$9.2	\$10.8	\$0.0
Construction Services	\$9.9	\$9.9	\$8.9	\$0.7	\$9.9	\$0.0
3rd Party Agreements	\$1.5	\$1.5	\$1.3	\$1.1	\$1.5	\$0.0
Construction	\$127.2	\$129.2	\$114.5	\$0.5	\$129.2	\$0.0
Vehicles	\$35.4	\$33.7	\$31.2	\$0.8	\$33.7	\$0.0
ROW	\$3.6	\$3.2	\$2.0	\$1.8	\$3.2	\$0.0
Contingency	\$6.6	\$6.6	\$0.0	\$0.0	\$6.6	\$0.0
Total	\$217.3	\$217.3	\$181.1	\$26.7	\$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	\$21.6	\$20.5	\$0.0	\$21.6	\$0.0
20 Stations	\$1.8	\$2.7	\$2.3	\$0.0	\$2.7	\$0.0
30 Support Facilities	\$26.6	\$28.8	\$27.3	\$0.0	\$28.8	\$0.0
40 Sitework & Special Conditions	\$40.0	\$44.9	\$41.5	\$0.5	\$44.9	\$0.0
50 Systems	\$25.0	\$25.5	\$22.9	\$0.0	\$25.5	\$0.0
Construction Subtotal (10 - 50)	\$115.4	\$123.5	\$114.5	\$0.5	\$123.5	\$0.0
60 Row, Land	\$3.4	\$3.0	\$2.0	\$1.8	\$3.0	\$0.0
70 Vehicles (non-revenue)	\$34.1	\$34.1	\$31.2	\$0.8	\$34.1	\$0.0
80 Professional Services	\$48.4	\$48.7	\$33.2	\$23.6	\$48.7	\$0.0
90 Unallocated Contingency	\$16.1	\$8.1	\$0.0	\$0.0	\$8.1	\$0.0
Total (10 - 90)	\$217.3	\$217.3	\$181.1	\$26.7	\$217.3	\$0.0

Risk Management

The Hilltop Tacoma Link Risk and Contingency Management Plan (RCMP) was updated in 2nd QTR 2018. This establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage risks on the project. It is Sound Transit’s responsibility for continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast. The quarterly risk review for Q3 2018 was held on September 12th. The Q4 2018 Risk Review is tentatively scheduled for December 7th 2018.

The Baseline Risk Assessment was conducted in May 2017. Per the 3rd QTR 2018 Register Review the current top project risks include:

- Unidentified utility conditions under the proposed alignment lead to schedule delays and increased cost.
- Utility relocation associated with the MLK Pedestrian undercrossing may require more work than anticipated.
- Requirements and request from the City for UPO, MOT and property access lead to increased cost and schedule delays.
- Unknown subsurface conditions under the proposed alignment (old Tracks) or OCS pole locations.

Contingency Management

Hilltop Tacoma Link Extension was baselined on September 2017 with a total contingency of \$33.9M. Since baselining, there were draw downs on AC and UAC to address Final Design Change Orders, the Procurement of the Tacoma LRV contract and the T100 Construction contract.

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.

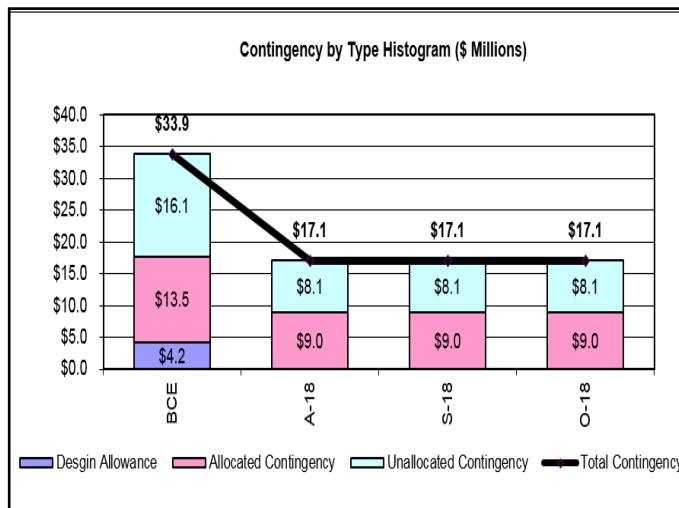
Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period the Total AC remained the same at \$9.0M.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC balance remained the same in October with a net amount of \$8.1M.

Contingency Status

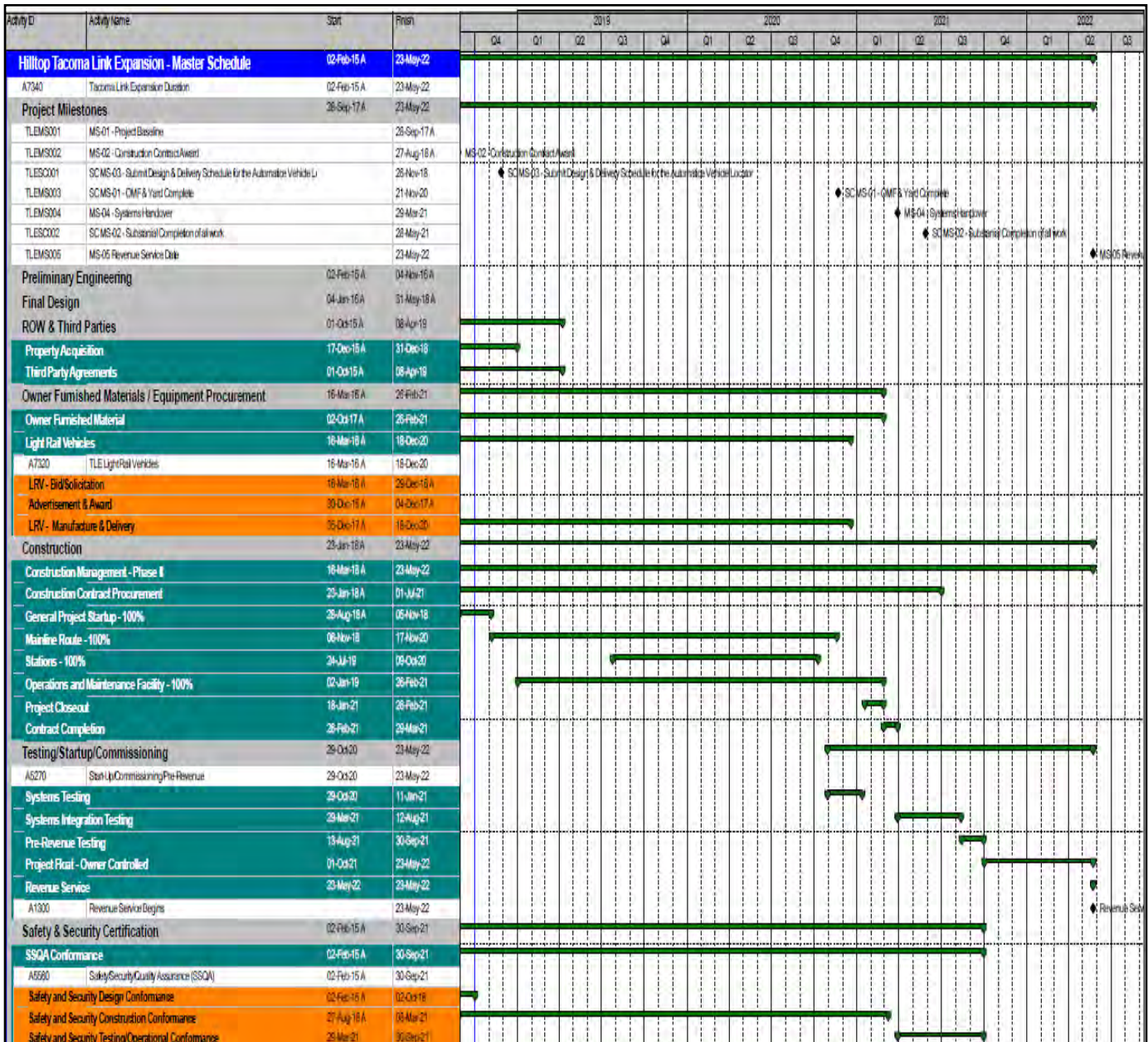
Contingency Type	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$4.2	2.2%	\$0.0	0.0%
Allocated Contingency	\$13.5	6.8%	\$9.0	4.7%
Unallocated Contingency	\$16.1	8.2%	\$8.1	4.3%
Total	\$33.9	17.2%	\$17.1	9.0%

Table figures are shown in millions.



Project Schedule

The Master Schedule has been updated through the end of October 2018. Construction contractor has submitted the CPM baseline for review and is expected to be approved November 2018. The LRV procurement contractor continues submitting CDRLS (Contract Data Requirement Lists) packages in support of Preliminary Design Reviews (PDRs) scheduled 1st QTR 2019. Forecast delivery of the LRVs remains on target with first car arriving in 2nd QTR 2020 and last car in 4th QTR 2020.

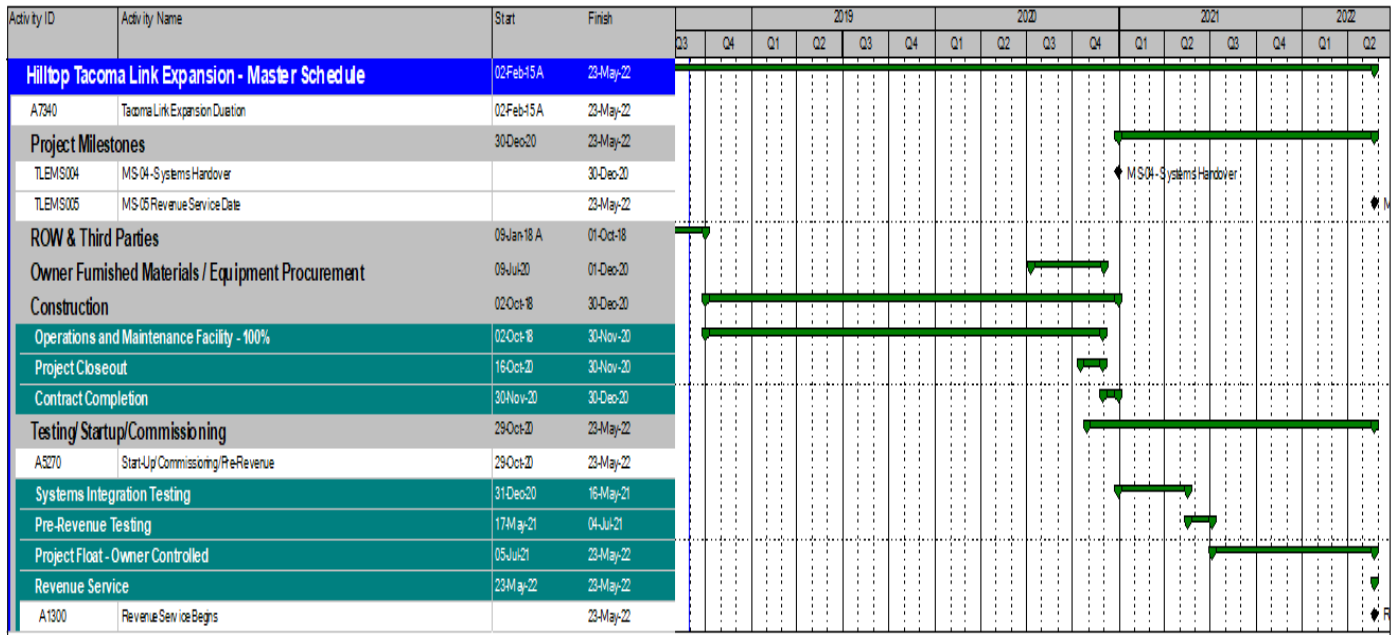


Link Light Rail Hilltop Tacoma Link Extension



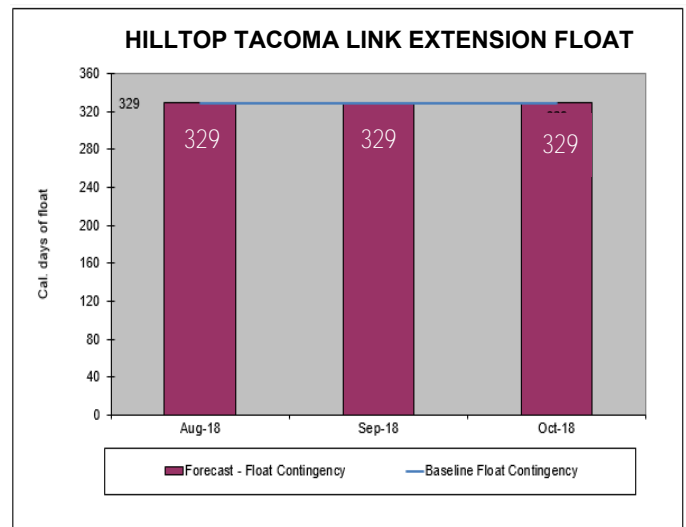
Critical Path Analysis

The critical path for Hilltop Tacoma Link remains the same as last period, going through the execution of the T100 construction contract. Once awarded, the critical path runs through the completion of the water service work being performed by TPU in Segment 4a Roadway MLK Way – Division to S. 6th Street on the Mainline Route. Vehicle Delivery is still not on the critical path as the LRV contractor is still forecasting shipment earlier than original target date of June 2020. The project retains adequate float at 329 calendar days.



Project Float

The Hilltop Tacoma Link Extension project currently forecasts 329 days of unallocated project float.



Right-of-Way

The Hilltop Tacoma Link Operations and Maintenance Facility will be expanded to the east and five new vehicles will be purchased. 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. Design efforts have reduced the total acquisitions required from 140 to 22 parcels.

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	17	1	1
* 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

- Held a construction careers open house at Evergreen College’s Tacoma campus on Hilltop.
- Produced and distributed construction alerts about potholing along the HTLE route, pile driving at the OMF and replacing underground utilities.
- Gave project updates at the Dome District, Hilltop Business Association, Downtown Tacoma Business Improvement Area, and New Tacoma Neighborhood Council meetings.
- Staffed the Stadium High School’s back to school night, including presenting to parents in the gym.
- Attended the Hilltop Action Coalition’s annual lunch and staffed Downtown on the Go’s Link and Drink event.
- Obtained rights-of-entry from properties near the OMF to install noise and vibration monitoring equipment.
- Accompanied the contractor on a preconstruction survey of MultiCare’s pedestrian tunnels.
- Collaborated with Sound Transit’s video team to produce a new HTLE video.
- Continued visiting businesses door-to-door.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

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

- IAG monthly meeting was held on October 1st.
- ELG provided recommendations of Level 1 Alternatives to continue forward into Level 2 evaluation on October 13th.
- City of Fife approved Fife Project Administration Agreement/Task Order 1 on Oct. 10th. Sound Transit Board approved on Oct 25th.
- Station Area Workshops: Federal Way/Fife – October 25th.
- Continued negotiations of Project Administration Agreement and Task Order 1 with the cities of Milton, Federal Way and Tacoma.
- Coordinating with the operations analysis for OMF: South placement and timing.
- Began Level 2 evaluation and analysis of alternatives for corridor alignment and station locations.
- Continued monthly coordination meetings with cities of Federal Way, Fife, Milton and Tacoma.

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	\$2.6	\$2.2	\$26.8	\$0.0
Preliminary Engineering	\$87.1	\$10.3	\$3.8	\$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	\$0.2	\$0.1	\$5.8	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$0.0	\$0.0	\$6.0	\$0.0
Total	\$125.7	\$13.1	\$6.1	\$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	\$0.0	\$0.0	\$5.0	\$0.0
80 Professional Services	\$110.9	\$13.1	\$6.1	\$110.9	\$0.0
90 Unallocated Contingency	\$9.8	\$0.0	\$0.0	\$9.8	\$0.0
Total (10 - 90)	\$125.7	\$13.1	\$6.1	\$125.7	\$0.0

Risk Management

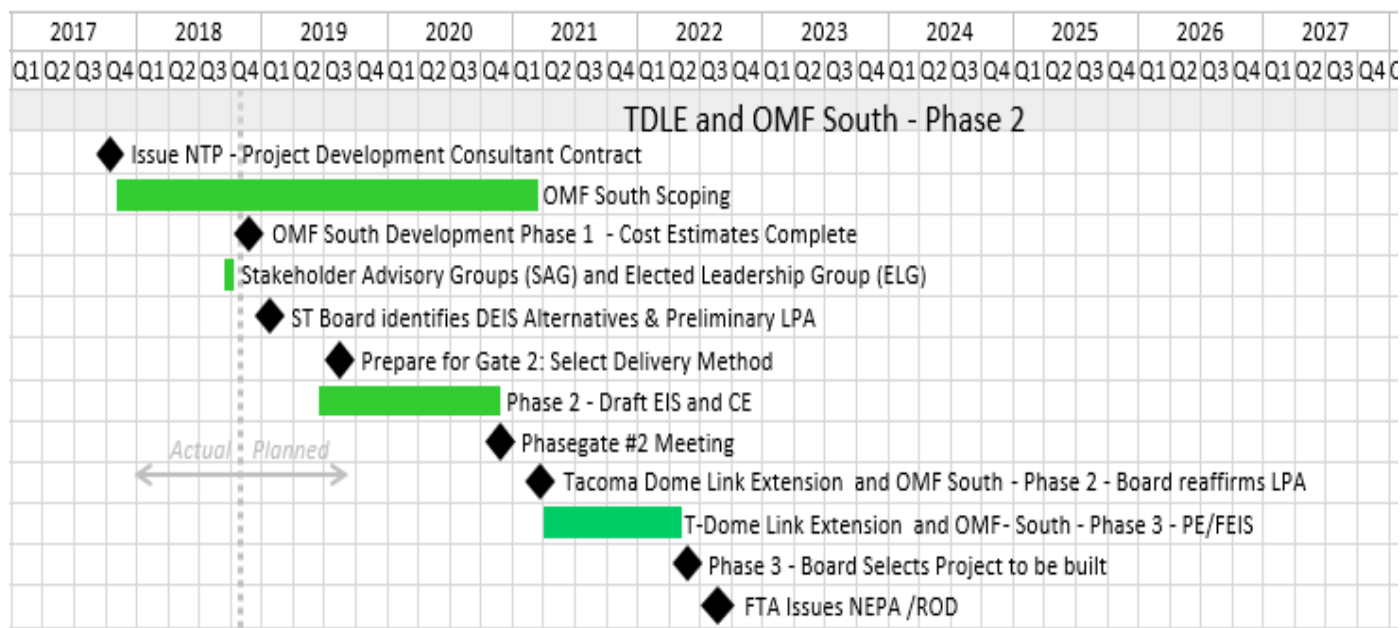
The Tacoma Dome Link Extension and OMF South Risk and Contingency Management Plan (RCMP) will establish a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage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

The third risk review workshop is scheduled for the 4th QTR 2018. The following are the top project wide risks:

- Clearance of the Bonneville Power Administration high voltage transmission lines.
- Geotechnical challenges and potential environmental considerations at/near the Puyallup River and Tacoma Dome area.
- Timely approvals of necessary permitting requirements.
- Coordination with WSDOT’s SR 167/Gateway project.

Project Schedule

Phase I Alternative Analysis —The HDR detailed schedule as of Oct 31, 2018 is remaining on target for completing level 1 and level 2 scoping and Final DEIS Alternatives Development and Preferred Alternative Identification in 2nd QTR 2019 for the TDLE project but the critical path of this schedule is running through the OMF Landfill Siting Feasibility Study Report to preparing and reviewing OMFS Capital Cost Estimating required for briefing the Sound Transit Board to help identify the OMFS DEIS Preferred Alternatives in the 1st QTR 2019.



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 stor-

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) development for DP3, DP3A, and DP4A are ongoing. DP4 was split into DP4 (OMF and MOW foundation and structure design) and DP4a (OMF and MOW Building Design)
- Vault work is ongoing; dewatering continues.
- Completed final sanitary sewer connection to the main sewer line.
- Wheel Truing Pit work is ongoing.
- Retaining wall installation continues.

Closely Monitored Issues

- Elements of DB Contractor’s proposal (shear wall elimination for future development) may require MOU amendment with City of Bellevue.
- Spur property exchange proposal with City of Bellevue may complicate the timing of the RFP for Transit Oriented Development.
- Commercial issues with the Design Build contractor regarding differing site conditions.
- Track related deviation with regards to the dynamic envelope of the LRV movements in the yard.

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 \$6M The total project cost incurred from \$168.8M to \$174.8M. The primary cost drivers during this period on the OMF East project comes from the design build (construction) phase at \$5M or roughly 83% of the total monthly expenditures. The next cost driver this period are the Construction Service and ROW Phase expenditures at about \$0.3M and \$0.3M respectively.

Cost Summary by Phase

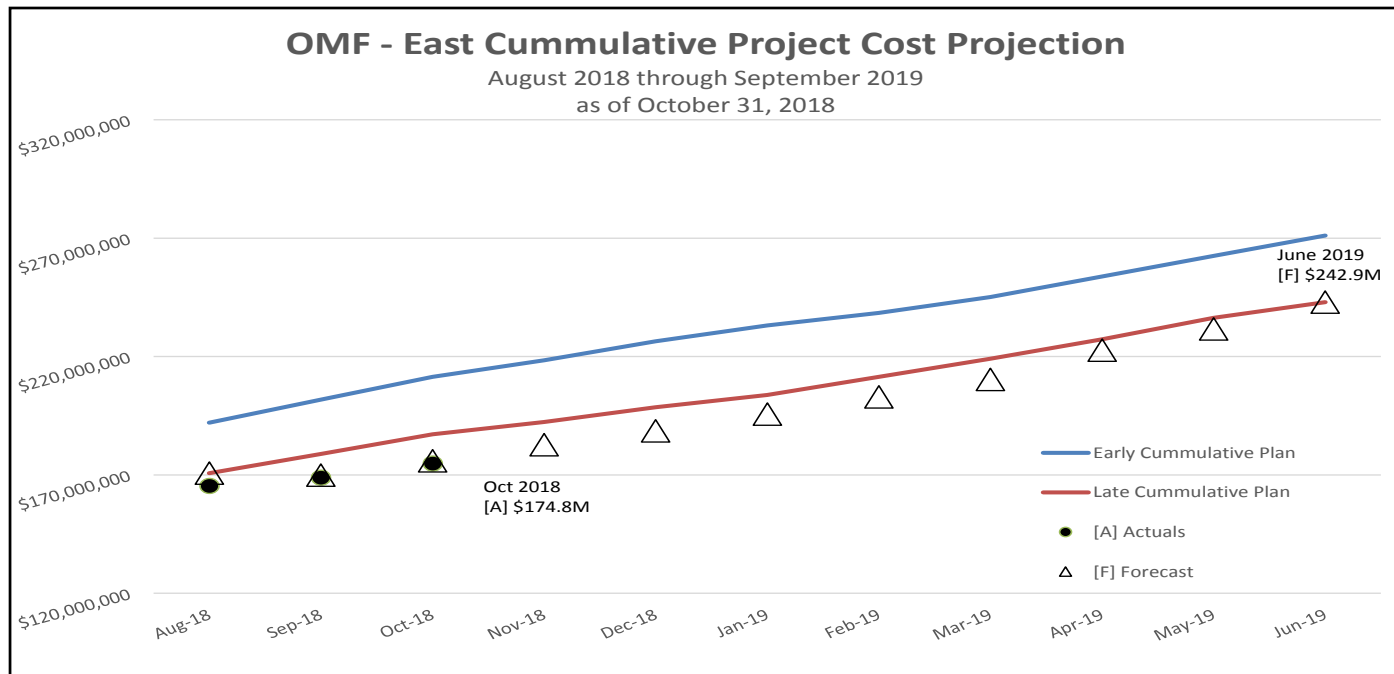
Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$17.6	\$17.6	\$5.0	\$4.9	\$17.6	\$0.0
Preliminary Engineering	\$9.5	\$9.5	\$9.0	\$8.7	\$9.5	\$0.0
Final Design	\$0.4	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction Services	\$19.3	\$19.3	\$17.6	\$4.3	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.3	\$0.1	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$222.9	\$55.3	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$101.8	\$101.5	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$356.7	\$174.8	\$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	\$0.7	\$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	\$136.2	\$124.1	\$21.1	\$145.4	-\$9.2
40 Sitework & Special Conditions	\$43.6	\$47.3	\$39.7	\$8.0	\$41.6	\$5.7
50 Systems	\$43.0	\$41.6	\$38.5	\$6.6	\$38.5	\$3.1
Construction Subtotal (10 - 50)	\$229.3	\$229.5	\$206.4	\$36.4	\$229.5	\$0.0
60 ROW, Land, Improvements	\$134.5	\$134.5	\$101.8	\$101.5	\$134.5	\$0.0
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$71.6	\$71.4	\$48.5	\$36.9	\$71.4	\$0.0
90 Unallocated Contingency	\$13.8	\$13.8	\$0.0	\$0.0	\$13.8	\$0.0
Total (10 - 90)	\$449.2	\$449.2	\$356.7	\$174.8	\$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 reached \$174.8M with Right-of-Way (ROW) phase cost being the largest driver at 58% and Construction Phase at about 32%. The projected cash flow was revised this period for the next nine months to reflect some current trends. The Design Builder's (DB) design completion continues to slip specifically on Systems where some procurements were anticipated that did not occur. In addition, ROW acquisitions and relocation phase is reflecting some positive trends where anticipated cost may not materialized as previously anticipated. The revised project expenditure trending is now to reach \$242.9M by June of 2019 which is still within the lower bounds of the late planned expenditures.



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 2, the completion of ROW Acquisition and Mass Grading. The 2nd QTR 2018 OMF East quarterly risk register has been updated and reviewed. A Quantitative Risk Assessment (QRA) has assessed the project complete within the given risk profile, to complete within the baseline schedule and budget. The current top actively managed risk areas remains similar to the previous quarter and are listed below:

- **Design:** As the project approaches the 60% design milestone, changes made to scope or design will have greater cost impact than during the earlier design stages.
- **Scope:** Scope increase as a result of Third Parties or ST stakeholders requesting additional work or deviation from plans will impact the project schedule and budget.
- **Construction:** As the construction commenced with early work; normal and routine construction risks will be encountered and may complicate and influence design completion. Soil conditions and coordination with third parties has been some early evidence of such challenges.

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.

Design Allowance (DA): N/A.

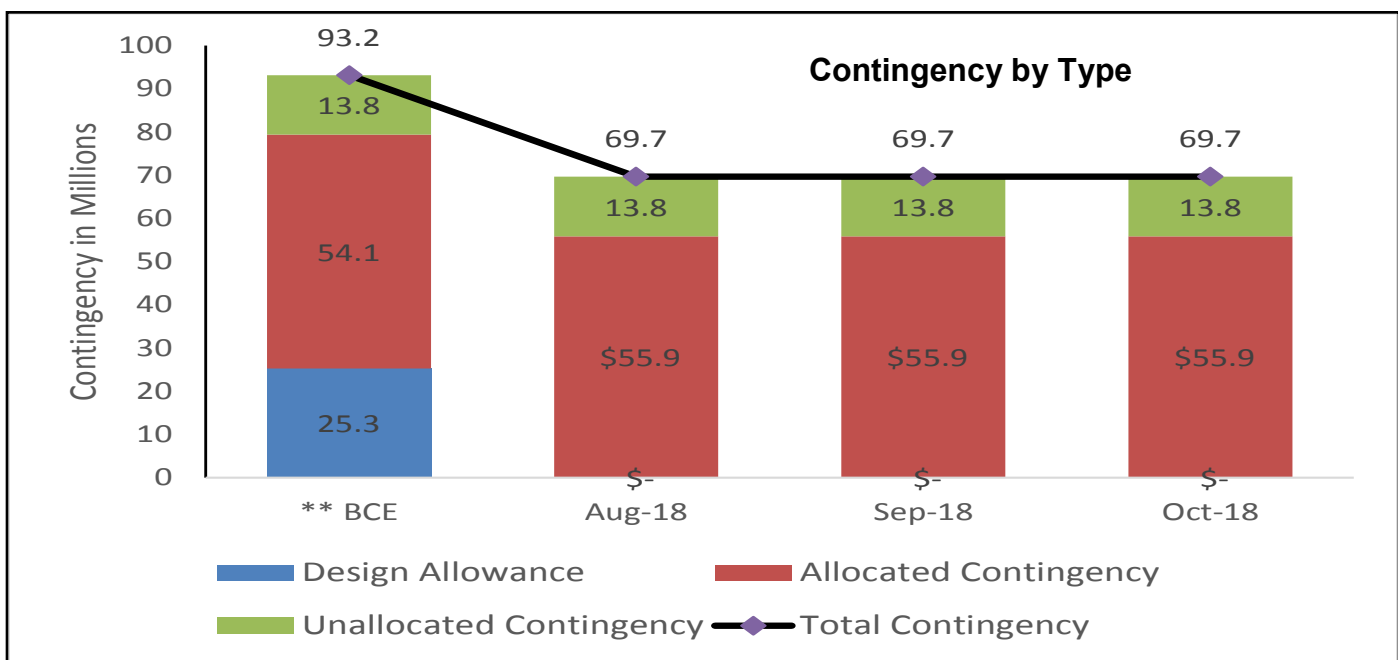
Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. Allocated contingency balance at the end of this period remained unchanged from the previous month at \$55.9M.

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%	\$ 55.9	20.4%
Unallocated Contingency	\$ 13.8	3.1%	\$ 13.8	5.0%
Total	\$ 93.2	20.7%	\$ 69.7	25.4%

Table figures are shown in millions.



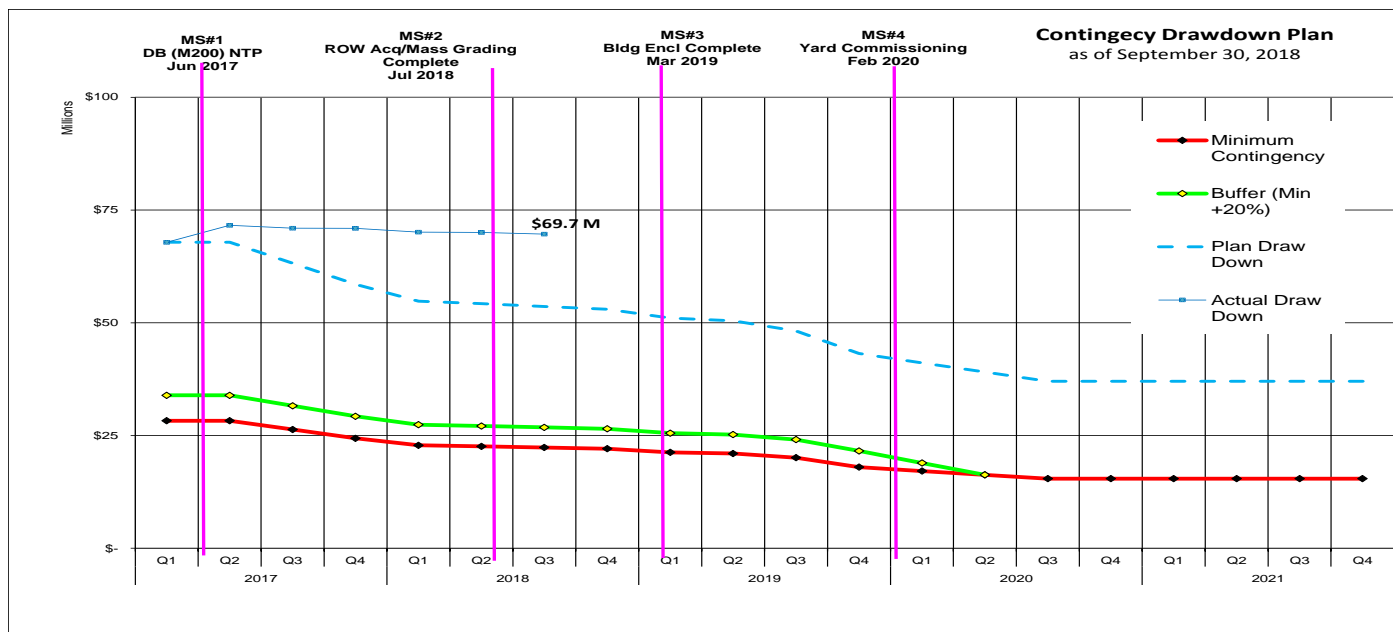
Link Light Rail

Link Operations & Maintenance Facility: East



Contingency Drawdown

At the end of the 3rd QTR 2018, OMF East Project's total contingency drawdown plan is trending positively. Total contingencies balance is at approximate \$69.7M (previously at \$70M) 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 2018.



Graph for Quarter ending September 30, 2018



Forming LRV service Pit Area.



Wheel Truing pit rebar installation

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 Summer 2020.

Activity Name	Start	Finish	2018				2019				2020			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
M200 Construction	19-Jun-17 A	26-Sep-20	[Gantt bar spanning from mid-2017 to late-2020]											
Preconstruction & Administration	19-Jun-17 A	26-Sep-20	[Gantt bar spanning from mid-2017 to late-2020]											
Milestones	19-Jun-17 A	26-Sep-20	[Gantt bar spanning from mid-2017 to late-2020]											
Contractual Milestones	19-Jun-17 A	26-Sep-20	[Gantt bar spanning from mid-2017 to late-2020]											
Milestone 1 - Substantial Completion	19-Jun-17 A	26-Sep-20	[Gantt bar spanning from mid-2017 to late-2020]											
Notice to Proceed (6/19/2017)	19-Jun-17 A		[Gantt bar spanning from mid-2017 to mid-2017]											
Milestone 1 - Substantial - Scheduled		26-Sep-20	[Gantt bar spanning from late-2020 to late-2020]											
Milestone 1 - Contractual (1196 CD after NTP)		26-Sep-20*	[Gantt bar spanning from late-2020 to late-2020]											
Design	19-Jun-17 A	25-Mar-20	[Gantt bar spanning from mid-2017 to early-2020]											
Submittals & Procurement	12-Dec-17 A	07-Feb-20	[Gantt bar spanning from late-2017 to early-2020]											
Construction	19-Jun-17 A	12-Aug-20	[Gantt bar spanning from mid-2017 to late-2020]											
Mobilization & Early Sitework	19-Jun-17 A	13-Mar-20	[Gantt bar spanning from mid-2017 to early-2020]											
Maintenance & Shop Building	23-Jul-18 A	08-Jun-20	[Gantt bar spanning from mid-2018 to mid-2020]											
Maintenance of Way Building	25-Jan-19	23-Apr-20	[Gantt bar spanning from early-2019 to early-2020]											
Ancillary Structures	19-Feb-19	13-May-20	[Gantt bar spanning from early-2019 to early-2020]											
Trackwork	13-Jul-18 A	30-Mar-20	[Gantt bar spanning from mid-2018 to early-2020]											
Site Surfacing & Finishes	24-May-19	05-Mar-20	[Gantt bar spanning from early-2019 to early-2020]											
Project Closeout	01-Apr-18 A	12-Aug-20	[Gantt bar spanning from late-2017 to late-2020]											

Critical Path Analysis

The critical path currently runs through Design Package 3 and the trackwork in the storage yard.

Activity Name	Start	Finish	2017	2018				2019				2020				
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
M200 Construction	26-Oct-18 A	26-Oct-20														
Preconstruction & Administration	26-Oct-18 A	26-Oct-20														
Milestones	05-Nov-18	26-Oct-20														
Design	26-Oct-18 A	05-Nov-18														
Construction	06-Nov-18	28-Jul-20														
Ancillary Structures	25-Mar-20	13-May-20														
Trackwork	06-Nov-18	24-Mar-20														
Project Closeout	14-May-20	28-Jul-20														
Link OMFE - Project Closeout	27-Sep-20	23-Dec-20														
Project Float	27-Sep-20	23-Dec-20														
Project Completion (Target 23-Dec-20)		23-Dec-20*														

Right-of-Way

All OMF East properties have now been vacated and are in the project’s control. Only administrative functions remain in this phase of the project. *No more updates.*

Community Outreach

- Distributed construction alerts for maintenance of traffic on 120th Avenue NE.
- Responded to complaints of light glare witnessed form the Bridle Trails neighborhood and construction trucking haul routes from Lake Bellevue.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	



Design Builder’s 3-D model of the OMF—East looking Southeast.

Contract M200 - OMF East Design Build

Current Progress

Design: Hensel Phelps (HP) advanced design packages (DP) for the following areas: Revised DP 3 IFC set was submitted by HP in October and is currently under review. DP 3A 100% will be submitted after DP 3 has been reviewed as some drawings from DP 3A were submitted with DP 3. HP responded to initial DP 4 IFC comments and are currently responding to final comments. Final IFC will be resubmitted in November.

Construction: North vault dewatering efforts are ongoing as excavation continues. OMFEast Building excavation began. Retaining wall excavation work commenced and is ongoing. Completed concrete pour for spread footing at the southwest corner of the OMF East Building. Wheel Truing Pit sump pit slab placed, installed waterproofing, formed and set rebar. Completed final sanitary sewer connection to main sewer line.

Next Period's Activities

- Complete DP #004A IFC Submittal & Review.
- Continue DP #003 IFC Submittal & Review.
- Continue DP #003A IFC Submittal & Review.
- Continue sanitary sewer work.
- Continue work at wheel truing pit.
- Work in elevator pit 2 continues.
- Continue excavation of storm water detention vaults.

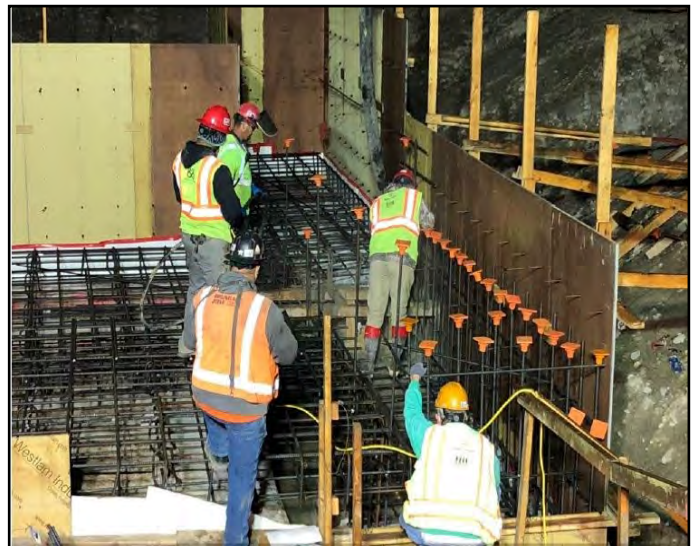
Closely Monitored Issues

- **Site infiltration issue:** Contractor has submitted an RFC stating differing site conditions on the soil infiltration rate. ST has rejected this change order and currently working on partnering activities to resolve the issue and find a path forward.

Cost Summary

Present Financial Status	Amount
M200 Contractor – Hensel Phelps	
Original Contract Value	\$218,912,000
Change Order Value	\$1,930,971
Current Contract Value	\$220,817,200
Total Actual Cost (Incurred to Date)	\$53,190,328
Financial Percent Complete	24.1%
Authorized Contingency	\$21,891,200
Contingency Drawdown	\$1,930,971
Contingency Index	2.5

*Excludes Betterments



Wheel Truing Pit Concrete Placement.

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

Phase Manufacturing

Budget \$740.7 Million (Baseline September 2015, Amended April 2017)

Schedule Project Completion: 3rd QTR 2024



Graphic simulation of the new light rail vehicles

Key Project Activities

- Car level coordination qualification test and dynamic envelope study discussion meeting held with Siemens.
- LRV #001 (Married & Trucked) is in the functional test area for wiring and internal build testing
- LRV #002 (Married & Un-Trucked) is undergoing wiring and interior build.
- LRV #003 (Married & Un-Trucked) is undergoing second water test due to a weld repair.

Closely Monitored Issues

- Commercial dispute remains open with Siemens regarding lift design and jacking points, and door supplier change .
- Provision of Wi-Fi facilities at Link OMF and OMF East.
- Truing interface basis information still in development at Siemens.
- Siemens submitting waiver requests and test procedures due to final design not be completed.



LRV #001 in functional test area.



LRV #002 in final assembly.

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.

In October 2018, the project incurred to date costs increased by \$.3M. The total incurred cost increased from \$86.7M to \$87M. The majority of this period’s costs were attributed to administration ,engineering services and vehicle inspection.

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	\$1.2	\$1.2	\$6.4	\$0.0
Construction Services	\$18.0	\$18.0	\$4.8	\$3.7	\$18.0	\$0.0
Vehicles	\$716.3	\$716.3	\$649.3	\$82.1	\$716.3	\$0.0
Total*	\$740.7	\$740.7	\$655.3	\$87.0	\$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, Improvements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
70 Vehicles	\$702.8	\$702.8	654.1	\$85.8	\$702.8	\$0.0
80 Professional Services	\$6.1	\$6.1	\$1.2	\$1.2	\$6.1	\$0.0
90 Contingency	\$31.7	\$31.7	\$0.0	\$0.0	\$31.7	\$0.0
Total *(SCC 10 - 90)	\$740.7	\$740.7	\$655.3	\$87.0	\$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 for continuously monitoring project status and associated risks.

The project’s qualitative risk register reflects 1st QTR 2018. The current top risk areas are listed below.

- Design of the propulsion and auxiliary power system taking longer than anticipated (System Requirements and Compatibility).
- Commissioning of LRVs is impacted due to lack of sufficient space, lift access or other resources at OMF (Forest St.).
- Limited yard storage capacity in 2020 may impact preventative maintenance or spares available to support peak service.
- Automatic Train Protection retrofit of existing fleet takes longer than expected.

Contingency Management

The project’s budget was Baseline in September 2015 contained a total of \$78M of Total Contingency. The project’s Total Contingency is currently at \$68.9.1M or about 12.1 % 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. The current available allocated contingency is \$37.2M . Approximately \$1M contingency was drawn this period for LRV change orders.

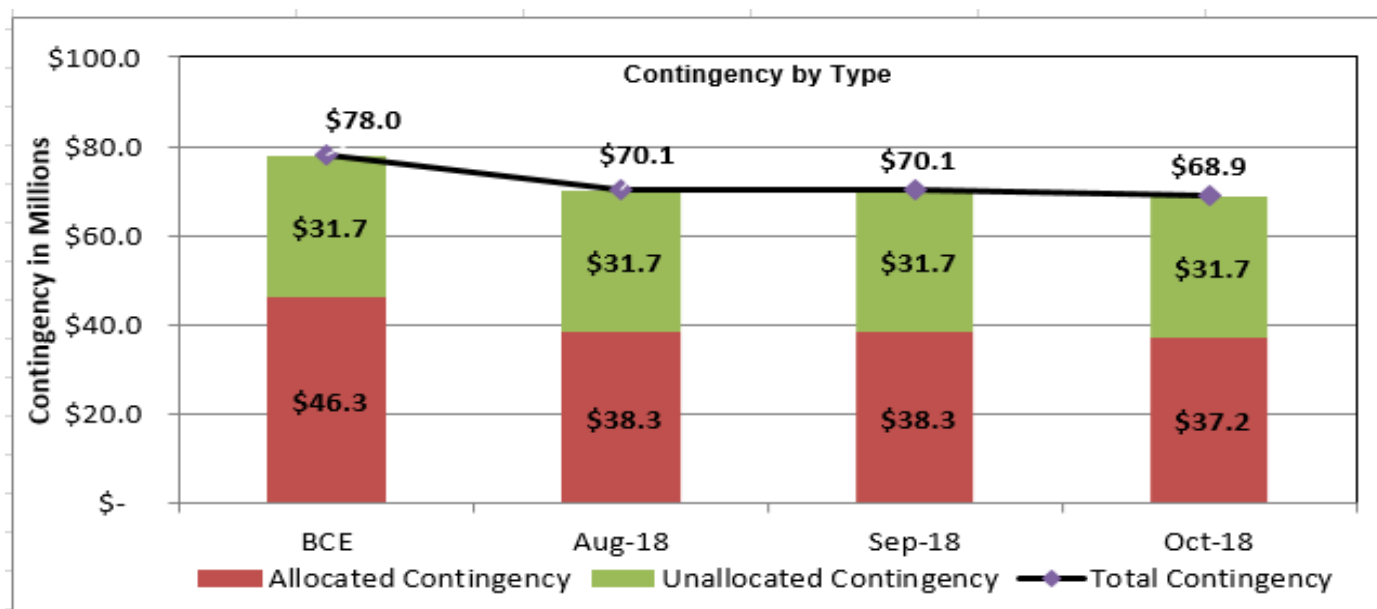
Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The baseline UAC remained unchanged at \$31.7M.

Contingency Status

Contingency Type	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$ 00.0	0.0%	\$ 00.0	0.0%
Allocated Contingency	46.3	6.4%	\$ 37.2	6.5%
Unallocated Contingency	\$ 31.7	4.3%	\$ 31.7	0.0%
Total	\$ 78.0	10.7%	\$ 68.9	12.1%

Table figures are shown in millions.

Contingency by Type



Project Schedule

The LRV Fleet Expansion project schedule is shown below. The progress schedule for October 2018 (see below) was established by using the last monthly production schedule submittal and forecast milestones updates for Engineering Final Design during the weekly progress and coordination meeting. The current schedule shows a disconnect between engineering and manufacturing of cars. This issue is being worked on by Siemens. This period's progress represents the review effort performed on final design packages being submitted by Siemens for approval and inspection support by the Resident Inspector at the Siemens Facility to monitor the production of the carshell and truck frame.

LRV #001 is still scheduled for shipment in January 2019. The final LRV is projected to be delivered around January 2024 and the project completion or final acceptance of all Light Rail Vehicle Expansion is scheduled to complete in July 2024.

Activity Name	Start	Finish	2019				2020				2021				2022				2023				2024					
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
LRV Procurement Schedule	24-Feb-15 A	12-Jul-24																										
LRV Vendor Procurement	24-Feb-15 A	10-Oct-16 A																										
LRV Engineering and Manufacture	11-Oct-16 A	30-Nov-18																										
LRV Design Reviews, Manufacturing, and System Tests	11-Oct-16 A	30-Nov-18																										
LRV Delivery Schedule	18-Jan-19	12-Jul-24																										
LRV #1-122 (122 LRV Base Order)	18-Jan-19	02-Feb-23																										
Delivery of 1st LRV (BL 27-Mar-19)		18-Jan-19																										
Delivery of 40th LRV - Northgate Link Vehicle Deliveries Complete (BL 26-Jun-20)		03-Apr-20																										
Delivery of 42nd LRV - Existing OMF at capacity (104 LRVs) (BL 27-Jul-20)		24-Apr-20																										
Final Acceptance of Vehicles (BL 28-Feb-23)		02-Feb-23																										
Delivery of 122nd LRV - Final ST2 Delivery (BL 26-Aug-22)		27-Jul-22																										
LRV #123-152 (0 LRV Options) - Change Order #4	11-Jan-24	12-Jul-24																										
Delivery of 152nd LRV - Final Delivery (BL 26-Feb-24)		11-Jan-24																										
Final Acceptance of Vehicles (BL 26-Aug-24)		12-Jul-24																										
Project Closeout																												

Critical Path Analysis

As of Oct 31, 2018 the manufacturer continues trending ahead of their baseline schedule; the delivery of LRV #001 is still projected to be completed in 1st QTR 2019, current schedule is forecasting that LRV#001 is approximately two months ahead of the schedule target completion date of March 27, 2019. The critical path is completing the remaining Final Design Reviews completions and FAI open actions items have slipped to late Dec 2018, these need to be completed before factory test of LRV #001 can be completed by January 2019.

The delivery of all the light rail vehicles requirements for Northgate Link Extension is currently anticipated approximately a year ahead of the start of revenue service. This is well within fleet requirement for a successful commissioning and testing of the LRVs prior to revenue simulation period. Consequentially, the planned deliveries and commissioning and testing of light rail vehicles are also ahead of requirements for East Link Extension.

LRV Manufacturing Critical Path Schedule

Activity Name	Start	Finish	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	Q4	Q1	Q2	Q3		
ST2 Light Rail Vehicle Fleet Expansion	11-Jun-18 A	15-Oct-19																										
Pre-shipment & Qual Testing (includes MP and GBV) LRV#001	12-Nov-18	04-Dec-18																										
Final Assembly LRV#001	11-Jun-18 A	03-Jan-19*																										
Final Assembly LRV#002	22-Aug-18 A	11-Jan-19																										
Shipment and Arrival at O&M Facility LRV#001	11-Jan-19	17-Jan-19																										
Qualification Testing (includes MP and GBV) LRV#001	18-Jan-19	14-Feb-19																										
Acceptance Testing LRV#001	15-Feb-19	25-Jun-19																										
Burn-In LRV#001	28-Jun-19	18-Jul-19																										
Conditional Acceptance (Milestone A-E) LRV#001		19-Jul-19*																										
Final Acceptance (Milestone A-F) LRV#001		15-Oct-19*																										

Link Capital Program Staffing July – September 2018 (updated quarterly)

Recruiting Status

The following positions were filled in 3rd QTR 2018 to support the Link Capital Program:

Position	Position
Corridor Design Manager	Cost Control Supervisor
Manager, Structural Eng	Sr. Project Control Specialist
Civil Engineer (2)	Construction Manager
Manager, Engineering - Rail/Vehicle	Principal Construction Manager
Sr. Systems Engineer	Sr. Administrative Specialist, CM
Manager, Communications & SCADA	Sr. Project Manager
Mech Engineer, Fire Protection	Assistant Mgr, Property Management
Systems Engineer	

As of the end of 3rd QTR 2018, below is the current DECM staffing levels:

Division	Total Positions	Open Positions	Filled Last Quarter
Executive, includes Project Directors	22	4	0
Project Management	33	8	1
Civil/Structural Engineering	60	10	4
System Engineering	40	3	5
Architecture & Art	18	1	0
Permitting	13	3	0
Construction Management	31	4	3
Project Control	62	8	2
Real Property	19	0	0
Property Management	11	2	1
TOTAL	309	43	16

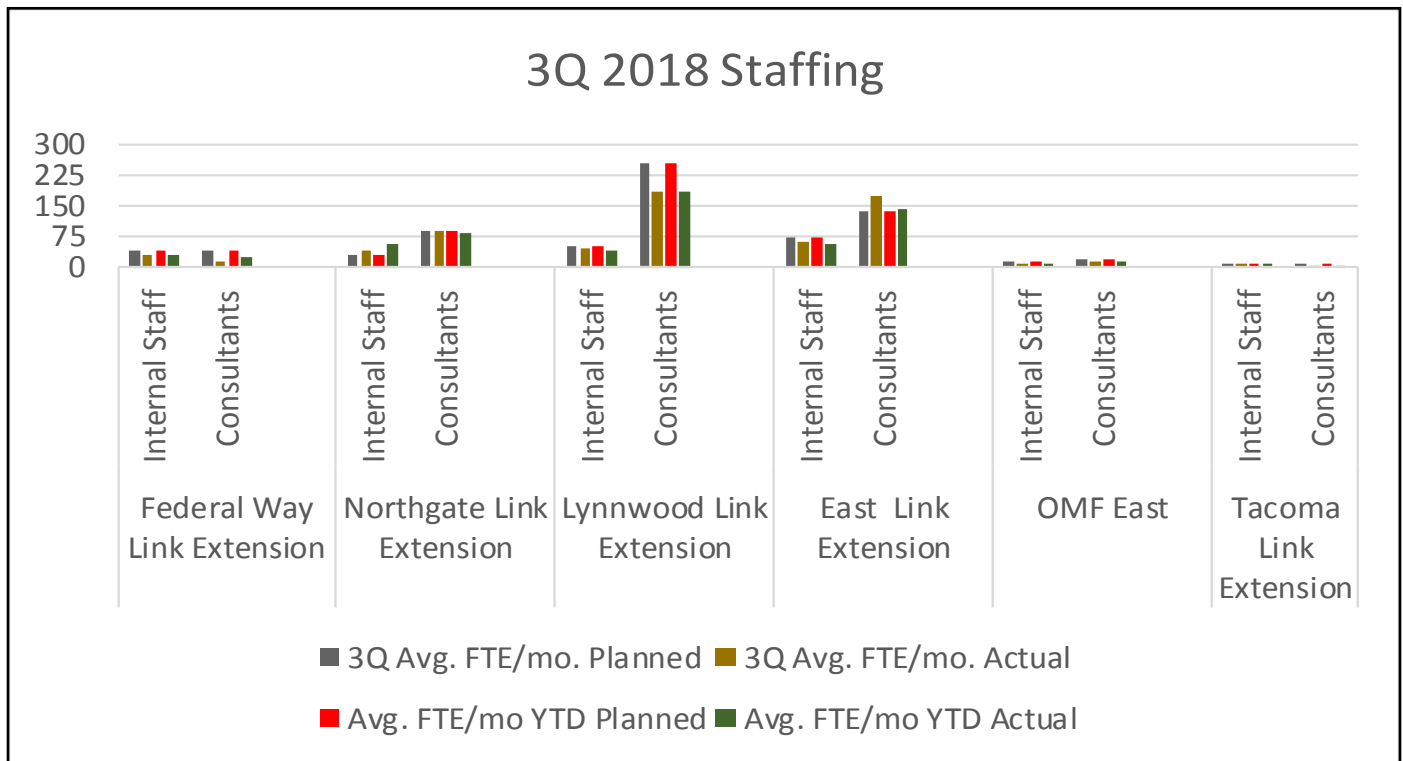
Link Light Rail Staffing Report



Staffing Variance relative to Plan

There were 206 internal and 485 consultant full time equivalents (FTE) supporting design and construction of Link light rail extensions (Table 1). Staffing for the Federal Way Link Extension and the OMF East was within 10% of plan. Staffing for the Northgate, Lynnwood, East, and Hilltop Tacoma Link Extensions was 95%, 76%, 86%, and 62% of plan respectively.

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	41	33	-8	-19%	41	15	-26	-63%	82	48	-33	-41%
Northgate Link Extension	30	40	10	33%	91	87	-4	-4%	121	128	6	5%
Lynnwood Link Extension	53	48	-6	-11%	255	188	-67	-26%	308	235	-73	-24%
East Link Extension	73	65	-8	-11%	140	178	38	27%	213	243	29	14%
OMF East	13	9	-4	-32%	19	12	-7	-35%	32	21	-11	-34%
Tacoma Link Extension	12	11	-1	-12%	12	4	-8	-63%	24	15	-9	-38%
Total	223	206	-18	-8%	558	485	-73	-13%	781	690	-91	-12%



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 Preser-	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 Man-	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 Develop-	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 Admin- istration
FSEIS	Final Supplemental Environmental Impact	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

Link Light Rail

Acronyms



PE	Preliminary Engineering	UAC	Unallocated Contingency
PEP	Project Execution Plan	U-Link	University Link project
PEPD	Planning, Environment and Project Develop-	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		
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		