Progress Report Link Light Rail Program



N830 (Mass Electric) hoisting floating slab trench cap for EMI cable work Northgate Link Extension

May | 2018

SoundTransit



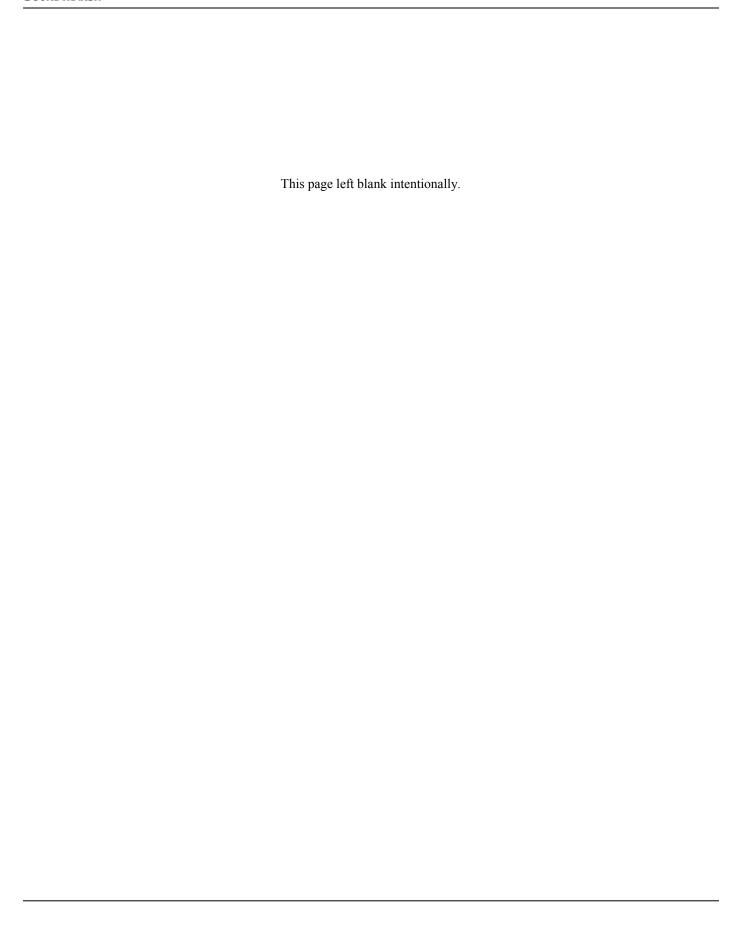






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Link Light Rail Program Overview



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 atgrade, 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. Preliminary Engineering for the Redmond light rail extension has a budget of \$28.6M.

West Seattle and Ballard Link Extensions: The West Seattle & Ballard Link Extensions are voter-approved projects under the ST3 Plan. West Seattle segment includes 4.7 miles of light rail from downtown Seattle to West Seattle's Junction neighborhood. It includes five light rail stations. The route will run primarily on elevated guideway with a new rail-only bridge over Duwamish River. The Ballard segment includes 7.1 miles of light rail from downtown Seattle to Ballard's

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

South 200th Link Extension: S. 200th Link Extension consists of a 1.6-mile extension of the light rail from the SeaTac/Airport Station to an elevated station at South 200th Street. The Project was developed through a 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. Final Design for Federal Way has a budget of \$412.6M.

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.

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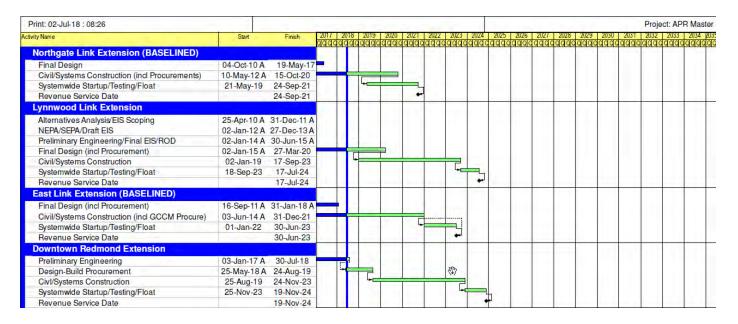
Program Budget

Project figures for active projects are represented in millions below.

Project	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Forecast to Com- plete	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
University Link Extension	\$1,756.0	\$1,514.2	\$1,507.3	\$39.8	\$1,554.0	\$202.0
Northgate Link Extension	\$1,899.8	\$1,623.5	\$1,171.4	\$223.7	\$1,847.2	\$52.6
Lynnwood Link Extension	\$2,771.6	\$282.1	\$231.2	\$2,489.5	\$2,771.6	\$0
East Link Extension	\$3,677.2	\$3,009.7	\$1,288.1	\$667.5	\$3,677.1	\$0
Downtown Redmond Link Ext.	\$178.0	\$24.1	\$16.7	\$153.9	\$178.0	\$0
West Seattle and Ballard Link Ext.	\$285.9	\$27.6	\$9.6	\$258.3	\$285.9	\$0
South 200th Link Extension	\$383.2	\$331.1	\$328.1	\$1.6	\$332.6	\$50.6
Federal Way Link Extension	\$412.6	\$97.2	\$70.1	\$315.5	\$412.6	\$0
Hilltop Tacoma Link Extension	\$217.3	\$73.1	\$24.6	\$144.2	\$217.3	\$0
Tacoma Dome Link Extension	\$125.7	\$11.9	\$2.6	\$113.7	\$125.7	\$0
Link O & M Facility: East	\$449.2	\$354.9	\$152.2	\$94.3	\$449.2	\$0
LRV Fleet Expansion	\$740.7	\$653.9	\$74.8	\$86.8	\$740.7	\$0
Total Link	\$12,897.3	\$8,003.2	\$4,876.7	\$4,588.8	\$12,592.0	\$305.2

Program Schedule

Schedules for active projects are summarized below.



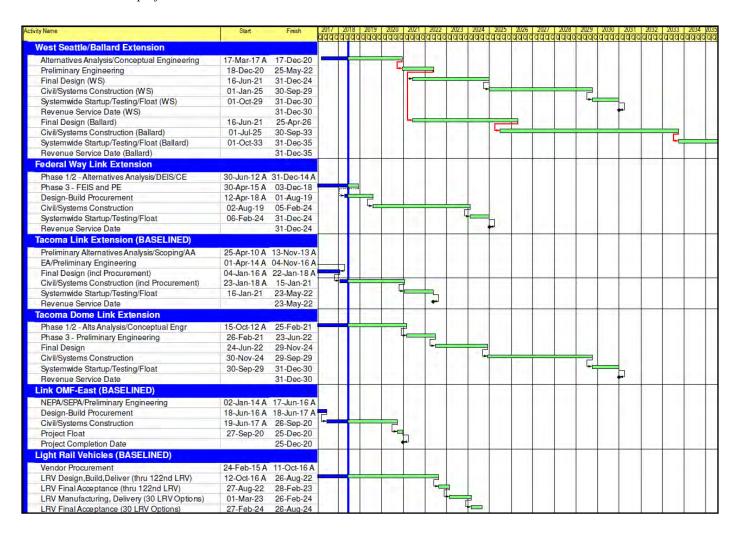
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Link Light Rail Program Overview



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: University Link continues to operate under a temporary certificate of occupancy until all permit requirements are fully met. The final items remaining are the utility as-built drawings to be submitted to Seattle Public Utilities (SPU) and tunnel electrical permitting close out. As-built drawing has been submitted to SPU as of this writing.
- Commercial issues with all prime Civil contractors (with the exception of Capitol Hill Station Contractor) has been negotiated as the project proceeds through the close out process. Finalized commercial resolution with Systems contractor.
- 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 are anticipated when the weather improves, power reliability and vibration monitoring and other follow up on various minor commitments from the Record of Decisions.
- Before and After Study to be initiate in fall of 2018 and complete through summer 2019.

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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, after some cost adjustments the project expenditure net about \$130K increasing the total direct expenditure to about \$1.5B (Finance Cost excluded). Current activities continues to pertain to close out and miscellaneous follow on work. The construction EFC continues to be approximately \$1B. This trend continues to hold as the project is substantially complete with only miscellaneous follow on scope and commercial issues remaining. Systems continues optimization process with miscellaneous operational equipment purchases trailing. The Total Incurred to Date for the Construction Phase is about \$989M and LRV is at about \$99.2M. Cost of LRV repairs were excluded from this project and tracked independently.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$115.23	\$113.55	\$82.90	\$82.07	\$88.11	\$25.45
Preliminary Engineering	\$24.39	\$24.26	\$24.26	\$24.26	\$24.26	\$0.00
Final Design	\$77.94	\$90.31	\$87.96	\$86.61	\$89.17	\$1.13
Construction Services	\$68.53	\$94.81	\$86.88	\$86.58	\$88.71	\$6.11
3rd Party Agreements	\$18.65	\$18.65	\$11.65	\$11.31	\$13.23	\$5.42
Construction	\$1,180.00	\$1,158.18	\$994.87	\$990.85	\$1,021.84	\$136.34
Vehicles	\$103.91	\$103.91	\$99.20	\$99.19	\$101.91	\$2.00
ROW	\$167.33	\$152.33	\$126.43	\$126.43	\$126.78	\$25.55
Capital Total	\$1,755.97	\$1,756.01	\$1,514.16	\$1,507.30	\$1,554.00	\$202.00
Finance Cost	\$191.71	\$191.71	\$191.71	\$174.87	\$191.71	\$0.00
Project Total	\$1,947.68	\$1,947.72	\$1,705.86	\$1,682.18	\$1,745.71	\$202.00

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

Construction EFC under the SCC format remains relatively unchanged at about \$998M. Construction SCC expenditures to date is about \$979M this period mostly attributed to Systems' continuing optimization and resolutions to change order work and miscellaneous follow on work. Total capital cost incurred to date including non-construction cost (SCC 60 thru 90) now at \$1.5B or about 86% of total project budget scoped (Finance Cost excluded). Total project cost incurred to date at the end of 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.

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Link Light Rail University Link Extension



Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$626.83	\$450.46	\$455.60	\$455.52	\$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	\$23.46	\$23.44	\$24.80	\$0.03
40 Sitework & Special Conditions	\$59.03	\$67.39	\$57.14	\$54.92	\$56.89	\$10.50
50 Systems	\$69.63	\$116.42	\$100.86	\$102.25	\$102.40	\$14.02
Construction Subtotal (10 - 50)	\$1,128.82	\$1,009.85	\$981.82	\$979.08	\$998.41	\$11.44
60 Row, Land, Existing Improvements	\$167.33	\$126.60	\$126.43	\$126.43	\$125.76	\$0.84
70 Vehicles	\$99.76	\$100.16	\$99.87	\$99.87	\$100.16	\$0.00
80 Professional Services	\$306.41	\$346.58	\$306.04	\$301.93	\$318.19	\$28.40
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	\$1,514.16	\$1,507.30	\$1,554.00	\$202.00
100 Finance Cost	\$191.71	\$191.71	\$191.71	\$174.87	\$191.71	\$0.00
Project Total	\$1,947.68	\$1,947.72	\$1,705.86	\$1,682.18	\$1,745.71	\$202.00

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

Stations

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

Systems

Include Signals, track electrification, and SCADA communications.

Phase Construction **Budget**

Schedule Revenue Service: September 2021

\$1.899 Billion

Northgate Mall North Seattle Northgate Community College NE 103rd St Ш NE 95th St Maple Leaf 5th Ave NE tunnel portal Roosevelt Way NE 85th St NE 80th St NE 75th St Roosevelt NE 65th St 뿔 5th Ave NE 50th St **U** District NE 45th St University of Brooklyn Washington Tunnel Route Retained University of Cut-Fill Route Washington Elevated Route Station

Map of Project Alignment

Key Project Activities

- Held an executive partnering workshop with Stacy and Witbeck, (SWI) for the N180 Trackwork contract. The executive team evaluated progress toward meeting the partnering goals and were satisfied with the overall progress of the project.
- SWI continues to make good progress on installation of floating slabs; N830 electricians continue to connect Electromagnetic Interference cables (EMI).
- Tunnel, Cross Passages, and Maple Leaf Portal (N125): The CM team continues to work with JCM to finalize claims, RFCs, Safety Critical items and other final documentation needed for contract closeout.
- U District Station/UW Campus (N140): Contractors are making progress throughout the station completing waterproofing, formwork installation, rebar prefabrication and installation. Structural concrete was placed in several areas on multiple days.
- Roosevelt Station (N150): Contractors are forming rebar for north escalator walls from roof to surface lift 2 and

- placed the north escalator wall from room to surface lift 1. Contractors commenced demolition of the slurry and guide wall along the west side of the station box. Crews placed concrete for the north head house stem walls and north escalator wall.
- Northgate Station (N160): Project staff is working with the Seattle Fire Dept. on renumbering the Northgate parking garage floors. Guideway Substructure/Superstructure: Construction work progressed on several caps and spans on the guideway. *Station*: Crews stripping formwork from Mezzanine Level. Garage: Work has progressed on all garage levels; elevator platforms are now operational in the garage.
- Trackwork (N180): SWI took delivery of the floating slab gantry crane. Floating slab installation continues for the northbound tunnel with over 33% of northbound slabs in place. SWI crews are installing the floating slab support surfaces in the southbound tunnel. The 7'-10" slab production continues with 50 slabs remaining.

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Environmental: Received updated Corps permit reverification to account for City of Seattle's future cycle track and pedestrian bridge designs. Moving forward with agreement to purchase additional In-Lieu Fee Mitigation credits to account for updates to the wetland mitigation needs resulting from project changes.

Closely Monitored Issues

- Seattle Department of Construction and Inspection requires the noise walls at U District Station to remain as part of the permit for N180 nighttime delivery of floating slabs. ST presented an alternate construction wall configuration for the completion of the station.
- The Northgate Station and Elevated Guideway (N160) and N830 Systems contracts are ramping up coordinated installation of systems components within the parking garage; coordinated installation will take place over the next several months.



Floating slab installation in the NB tunnel.

Project Cost Summary

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

The Estimated Final Cost (EFC) for the project as of this reporting period is \$1,847.2M, which is \$52.6M below the current project budget, which is unchanged from the last period. This period approximately \$17.6M was incurred, bringing the total project expenditures from \$1.15B to \$1.17B. Project commitments remain at \$1.62B with all major construction projects well underway.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$144.9	\$144.9	\$59.5	\$59.4	\$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	\$110.6	\$134.7	\$(2.6)
Construction Services	\$118.3	\$118.3	\$103.0	\$67.6	\$110.7	\$7.6
3rd Party Agreements	\$11.8	\$11.8	\$10.0	\$6.6	\$12.4	\$(0.6)
Construction	\$1,343.0	\$1,343.0	\$1,218.7	\$811.9	\$1,332.9	\$10.2
ROW	\$112.3	\$112.3	\$100.3	\$100.2	\$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	\$1,623.5	\$1,171.4	\$1,847.2	\$52.6

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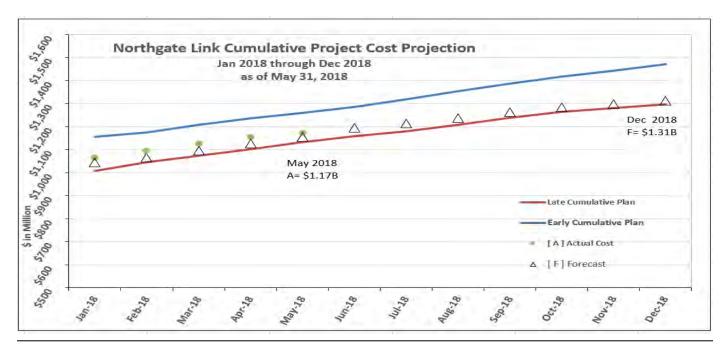
Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Author- ized Allo- cation vs. EFC
10 Guideway & Track	\$595.6	\$549.3	\$511.5	\$451.7	\$534.8	\$14.5
20 Stations	\$376.1	\$424.1	\$417.7	\$201.4	\$446.4	(\$22.4)
30 Support Facilities: Yard, Shop	\$5.3	\$5.3	\$6.4	\$5.8	\$6.4	(\$1.2)
40 Sitework & Special Conditions	\$140.8	\$224.2	\$165.5	\$129.0	\$217.0	\$7.2
50 Systems	\$110.9	\$96.7	\$107.0	\$15.6	\$102.9	(\$6.1)
Construction Subtotal (10 - 50)	\$1,228.7	\$1,299.6	\$1,208.2	\$803.5	\$1,307.5	(\$8.0)
60 Row, Land, Existing Improvements	\$119.9	\$110.9	\$100.3	\$100.2	\$105.5	\$5.4
80 Professional Services	\$420.7	\$431.6	\$314.9	\$267.7	\$428.8	\$2.9
90 Contingency	\$130.4	\$57.7	\$0.0	\$0.0	\$5.4	\$52.3
Total (10 - 90)	\$1,899.8	\$1,899.8	\$1,623.5	\$1,171.4	\$1,847.2	\$52.6

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 \$17.6M included \$15.1M for the ongoing major construction contracts including the N125 tunneling contract, the N140, N150, and N160 Station Finishes contracts, the N180 Trackwork contract and N830 Systems contract, and other miscellaneous construction; \$0.5M was incurred for civil and systems final design and design support during construction; and \$1.2M 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 \$1.17B of which about \$811.9M (69%) 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 through summer and fall.



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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. ST has completed a Quantitative Risk Assessment was required upon completion of Project Milestone 4 – All Civil Work in Tunnels complete, and the report was received in May.

The following are 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

Northgate Link was baselined in 2012 with a total contingency of \$396.2M. The total contingency has decreased by \$186.1M to \$210.1M, which is 31.1% of project work remaining. During this reporting period, a decrease of \$1.4M in the overall project contingency occurred. 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. The baseline Design Allowance of \$113.9M 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. Compared to the baseline amount of \$184.0M, Allocated Contingency has decreased by \$9.4M to \$174.6M. During this reporting period, a decrease of \$1.4M occurred due to the execution of change orders on the N125 Tunneling contract, the N150 and N160 Station contracts, and the N830 Systems contract.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. Compared to the baseline amount of \$98.3M, Unallocated Contingency has decreased by \$62.8M to \$35.5M. No changes to the UAC occurred during this reporting period.

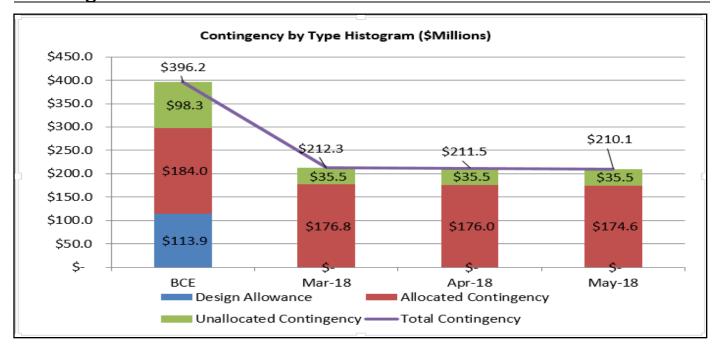
Contingency Status

	Base	eline	Current			
Contingency Type	Amount	% of Total	Amount	% of Work Remaining		
Design Allowance	\$ 113.9	5.3%	\$ -	0.0%		
Allocated Contingency	\$ 184.0	8.6%	\$ 174.6	25.8%		
Unallocated Contingency	\$ 98.3	4.6%	\$ 35.5	5.3%		
Total	\$ 396.2	18.6%	\$ 210.1	31.1%		

Table figures are shown in millions.

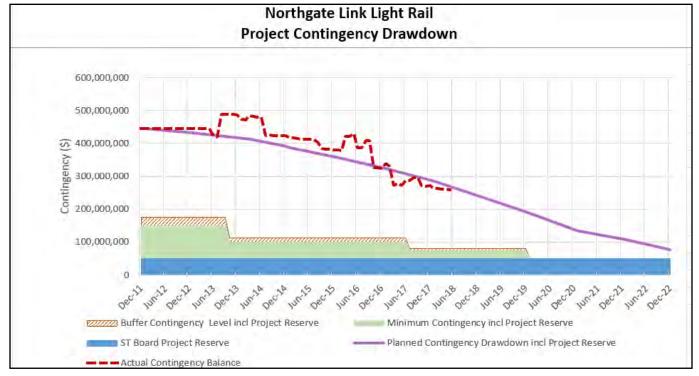
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Contingency Drawdown

Northgate Link Project's total contingency drawdown plan is trending slightly below the projected drawdown. Total contingency balance is at approximately \$210.1M with all major construction projects procured and major tunneling work completed. The balance remains near the baseline drawdown projection, and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels.



Quarter ending May 2018

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Project Schedule

As of May 2018, all Northgate Link civil contracts are under construction and the calculated physical percent complete for all major construction contracts is approximately 64%.

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

The N125 Tunneling Contractor (JCM) is continuing to work toward Project Acceptance. Physical punchlist work is nearly complete with one curb ramp restoration item to be resolved with the City of Seattle. ST is working with JCM to obtain the final As-Built schedule.

The N140 U District Station contractor, Hoffman Construction, continues to work on the basic structure below grade, placing waterproofing, rebar, and concrete at Basement Level 2 South and Basement Level 1 North. The north and south headwalls are complete except for the BL1 north which is in progress.

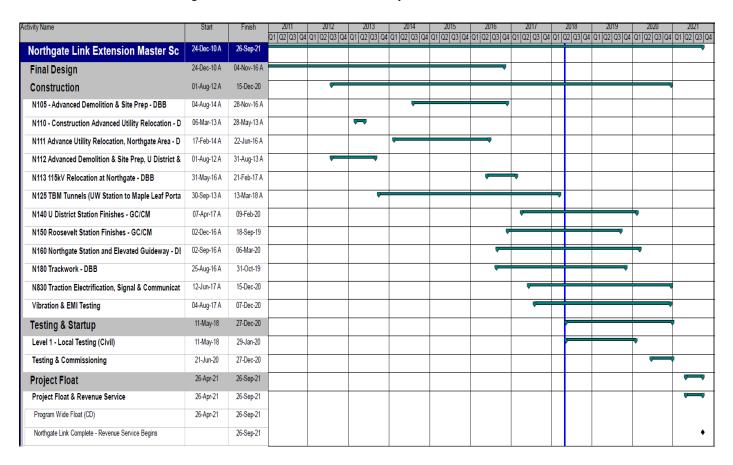
At Roosevelt Station (RVS), the N150 contractor, Hoffman Construction, is continuing with stem walls for the Headhouses. CMU is underway for the Systems Rooms. Hammer heads for columns are underway.

The N160 contractor, Absher Construction is continuing placement of column caps, spans, decking and post-tensioning for the elevated guideway between the Maple Leaf Portal and the Northgate Station. Station stair and escalator foundations are underway. At the Parking Garage, electrical and mechanical work continues, and parapet wall pours are in progress.

The N180 Trackwork contractor, Stacy & Witbeck, continues with installation of the floating slabs. Rail welding and pulling is ongoing. Installation of the 26Kv power cable is underway between UDS and RVS.

The N830/E750 Systems Contractor, Mass Electric (MEC), is continuing engineering and procurement work. EMI cable installation is ongoing in the tunnel.

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

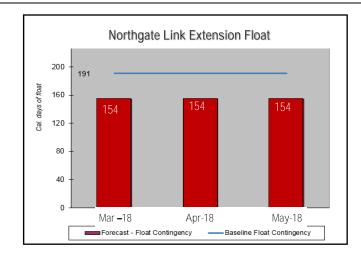


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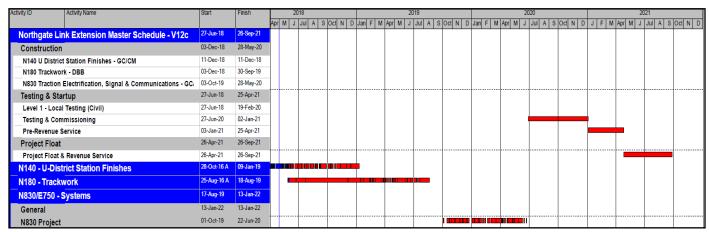
Project Float

The Northgate Link Project currently retains 154 days of unallocated project float. The station, trackwork, and systems contracts do not have ST Controlled Float. Interface float exists for interim milestones only and is ST managed, not contractual.



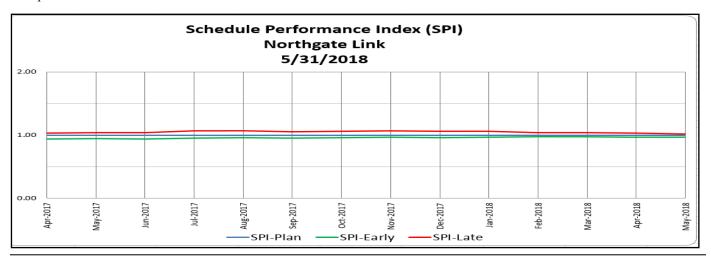
Critical Path Analysis

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



Schedule Performance Index

The early Schedule Performance Index (SPI) for the project is at 0.97 for this period. The late SPI is at 1.03 showing that in general, performance is satisfactory. The early and late numbers have been trending within a range of 0.02 above or below the current period numbers for several months.

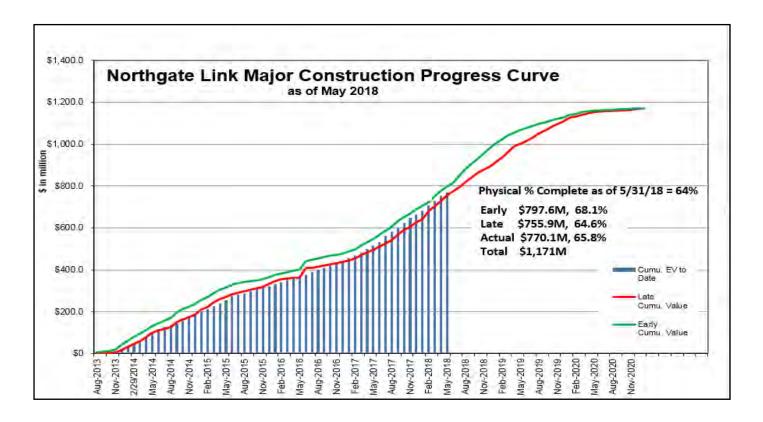


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Cost Progress Analysis

All civil work in the tunnels is complete and all three station finishes contracts and trackwork are well underway. Systems procurement is in progress and installation for the garage has begun. 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, as of the end of May, is trending appropriately between the early/late projections as drawn from the master schedule. In terms of physical percent complete, the overall percent complete for Northgate Link construction is approximately 64% as compared to approximately 61% of contractual duration expended.



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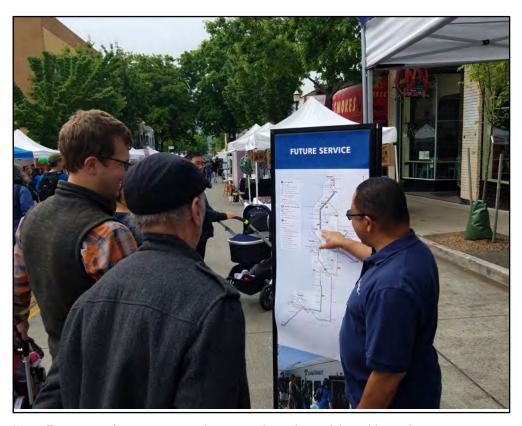


Community Outreach

- Notified the Dwell property near RVS about noise wall and sound wall removal starting in early May following a resident's briefing on the activity in April.
- Sound Transit is the major sponsor of the University District Street Fair held on May 19 and 20. Staff volunteers spoke with over 2,000 visitors providing project information and answering questions about the project over the two days.
- Distributed construction alerts about the early morning and weekend concrete pours scheduled to at the UDS and Northgate stations.
- Reviewed and discussed early morning noise complaints with the Floating Slab and Trackwork (N180) contractor in response to nearby residents.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	



ST staff reviewing future service with interested members of the public at the University Street Fair.

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Construction Safety

Data/ Measure	May 2018	Year to Date	Project to Date
Recordable Injury/Illness Cases	2	11	90
Days Away From Work Cases	0	0	6
Total Days Away From Work	0	0	397
First Aid Cases	4	31	128
Reported Near Mishaps	6	26	110
Average Number of Employees on Worksite	530	-	-
Total # of Hours (GC & Subs)	99,618	455,912	3,364,045
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	4.02	4.83	5.35
Lost Time Injury (LTI) Rate	0.00	0.00	0.36
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.

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

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

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

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

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

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

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

N180 Trackwork - Installation of all trackwork through two tunnels and three stations between 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.



Absher erects Peri Forms with column steel looking south from the Northgate Link Station.

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Contract N125 - TBM Tunnels

Close-out Progress

The N125 Contractor, JCM, was issued Substantial Completion on March 13, 2018. JCM is working to complete the final punchlist in the tunnels:

- One item of curb and ramp restoration, requiring SDOT agreement.
- Completion of WSDOT punchlist items, pending WSDOT review.
- JCM is working to complete Documentation and Spare Parts items.

Next Period's Activities

- Complete remaining NCRs and punch list items.
- Continue safety critical certification.
- Complete UPS training.
- Complete submission of outstanding as-builts and O&M manuals.
- Continue finalizing remaining change orders.

Closely Monitored Issues

 There are numerous open claims on the contract that are 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	Am	nount
N125 Contractor - JCM Northlink		
Original Contract Value	\$	440,321,000
Change Order Value	\$	60,435,102
Current Contract Value	\$	500,756,102
Total Actual Cost (Incurred to Date)	\$	496,884,392
% Authorized Billed-to-Date		99.2%
Physical Percent Complete		100.0%
Authorized Contingency	\$	66,048,150
Contingency Drawdown	\$	(60,435,102)
Contingency Index		1.09

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Contract N140—U District Station Finishes

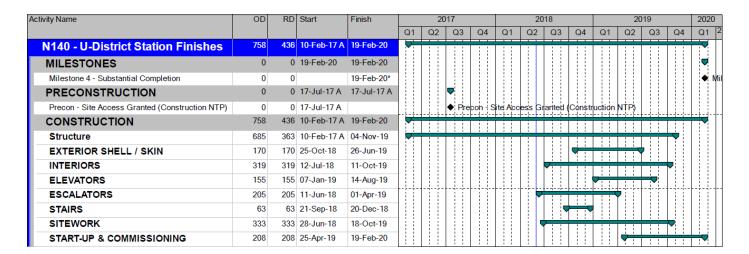
Current Progress

The N140 Contractor, Hoffman Construction (HCC), has continues to prosecute the structural work in Basement Level (BL) 2 and BL-1 in the North and South Areas. Exterior wall construction continues in the Center Area. 2nd lift escalator wall pours are underway in the North area. In the South area the escalator pits have been poured.

- Continuing structural concrete work in north area on the BL1 Deck. Removing formwork for BL2-BL1 walls.
- FRP of Center section exterior walls is ongoing.
- FRP of interior structural concrete walls is underway. MEP rough-in and shotcrete continues in the saddlebag area.

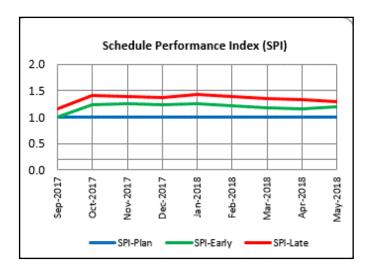
Schedule Summary

The schedule update for May 2018 indicates the project remains ahead of schedule with 6 days of float. Currently all milestones are on or ahead of schedule. Some time loss may yet be realized due to an ST requested Safety Stand Down. The critical path now resides in the North Headhouse structure, North Entry, and then into commissioning.



Schedule Performance Index

This period, the SPI early is at 1.20 and the SPI late is 1.28. The early index indicates that the Contractor continues to perform slightly ahead of plan when compared to the baseline schedule and cashflow.



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Next Period's Activities

- Continue procurement of long lead materials and equipment.
- South Basement Level (BL) 2 interior and exterior concrete wall work will continue.
- Commence installation of escalators intermediate support.
- Center platform concrete work will begin at GL 4-7 and the west shoulder.
- Center BL2 columns and exterior wall work will continue with WC6.
- North BL2 concrete work will proceed on the saddle bag return wall.

Closely Monitored Issues

• Seattle Department of Construction & Inspections (SDCI) has stated that the sound/construction walls as installed for 24/7 tunnel construction need to remain as part of the Major Public Project Construction Noise Variance (MPPCNV) Permit for N180's night time delivery of floating slabs. ST met with SDCI this week and presented sound data of existing work and a sound model by Greenbush showing delivery of floating slabs to the trackway using an electric crane meets the sound levels requirements of the MPPCNV. ST also presented an alternate construction wall configuration for the completion of the station. SDCI is checking if a change to the MPCNV is permissible and a decision is anticipated by next month.

Cost Summary

Present Financial Status	Amount
N140 Contractor—Hoffman Constructio	n
Original Contract Value	\$159,836,688
Change Order Value	\$ 342,271
Current Contract Value	\$160,178,959
Total Actual Cost (Incurred to Date)	\$ 48,188,975
Financial Percent Complete	30.1%
Physical Percent Complete	27.9%
Authorized Contingency	\$ 7,991,834
Contingency Drawdown	\$ 342,271
Contingency Index	6.5



UDS - Work Area Looking South

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Contract N150—Roosevelt Station Finishes

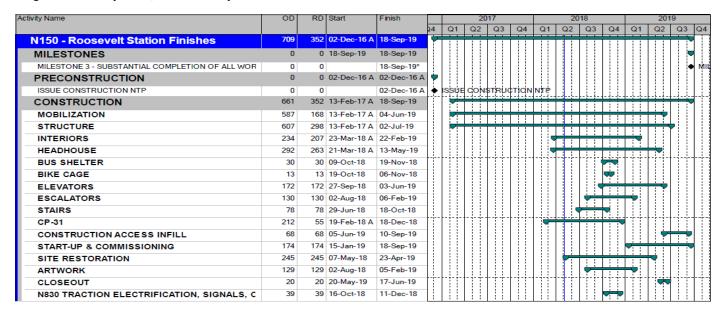
Current Progress

Hoffman Construction (HCC) has completed by bulk of the Station Substructure. Achievement of Milestone No. 1—Basic Structure Completion Below Grade is anticipated to take place in June. Work continues on the Headhouse stem walls both North and South. CMU block work continues on the Platform level. Major accomplishments this period include:

- Placement of South Headhouse stem walls.
- Installation and concrete placement at the SCL Ductbank.
- Continued removal of the slurry and guide walls at Dwell condominiums.
- Formwork installation at the hammer head columns.

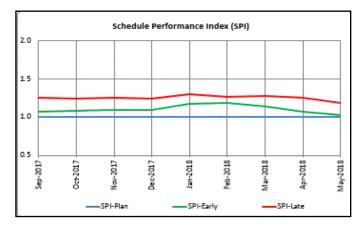
Schedule Summary

The N150 May schedule update was returned to Hoffman Construction with a review status of Revise and Resubmit. This was due to amount of negative float represented in this submittal. After discussion with the contractor, Hoffman has agreed to revise the schedule. The revision is still expected to exhibit negative float, due to slowed progress at the headhouses, difficult removal of guide and slurry walls, and the Safety Stand Down.



Schedule Performance Index

This period, the SPI early is at 1.0 and the SPI late is 1.2. The early index indicates that the Contractor continues performing the work on schedule when compared to the baseline plan and is expected to continue this trend next period.



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Next Period's Activities

- Place north escalator wall from roof to surface lift 1.
- Complete formwork and reinforcing and place concrete for north head house stem walls N3b and N4b.
- Continue setting CMU block at south platform.
- Continue utility work over station box to prepare for next CCF lift.
- Continue demolition of slurry and guide wall along Dwell and east side station box.
- Complete removal of shoring in North.
- Continue building manlift dock for BL-3 and install stop next period.
- Continue forming for hammer head columns. Concrete placement TBD.
- Continue forming waler beams at J line. Concrete placement TBD.
- Commence excavation for vault FC-1.

Closely Monitored Issues

- Design continues to focus on responding to overdue RFIs and urgent submittals.
- Contractor and Design meet with L&I this week to review clearance requirements for sheave beam.

Cost Summary

Present Financial Status	Amount
N150 Contractor - Hoffman Construction	on
Original Contract Value	\$ 152,291,184
Change Order Value	\$ 1,914,335
Current Contract Value	\$ 154,205,519
Total Actual Cost (Incurred to Date)	\$ 69,667,884
Financial Percent Complete	45.2%
Physical Percent Complete	40.0%
Authorized Contingency	\$ 7,614,559
Contingency Drawdown	\$ 1,914,335
Contingency Index	1.6



Roosevelt Station Looking North

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

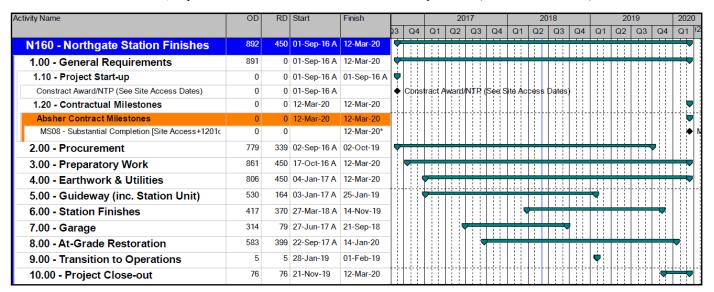
Current Progress

The N160 Contractor, Absher, continues to make progress on the Parking Garage, Guideway, and Station. At the Station, the contractor is stripping the Mezzanine structure, assembling the Emergency Stair structures, and placing retaining walls. On the Guideway, OCS overhangs and Track Slab construction continues, along with Post-Tensioning. Guard Rail installation is underway on Units 4 and 5.

In the Garage, structural concrete has moved to the Parapets on the Roof. Falsework and reshoring removal continues. CMU walls for the Communication rooms has moved up to BL1. Mechanical, Electrical, and HVAC installations are in progress. Exterior Metal framing and Architectural is also in progress. Systems access was achieved in May, and the N830 contractor has mobilized forces in to the Garage.

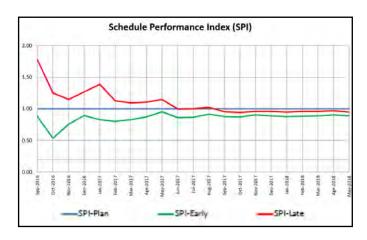
Schedule Summary

The project schedule for May slipped from five days of negative float to negative eleven days to Substantial Completion Milestone 3 - Systems Access at the garage is now forecast at forty days late, finishing in mid-September. The primary driver in the Garage currently is the Electrical installations. The critical path for the project overall, has not changed and remains the station structure and station finishes, in particular the installation of the vertical transportation (escalators and stairs).



Schedule Performance Index

This period, the SPI early is at 0.89 (down from 0.91), and the SPI late is at 0.95 (down from 0.97). The early index indicates that the contractor continues performing slightly behind plan when compared to the baseline schedule. The SPI is decreased slightly over the last period, but work progress overall has remained within 0.02 of its current trend over the last nine months.



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Next Period's Activities

- General Project Progress: Continue processing and reviewing of submittals and RFIs.
- Guideway Substructure/Superstructure: Continue formwork, rebar and concrete placement for columns/ caps. Continue A-line guideway decks and track slabs. Continue placing overhang brackets, walkway and edge forms, plinths, and intermediate diaphragms. Continue stanchion and cable guardrail installation.
- Station: Place concrete for grade level retaining walls, stair and escalator footings/walls and OCS pole supports. Remove falsework at mezzanine. Continue windscreen installation and assembly of steel for emergency stairs.
- Parking Garage: Continue wall and column rebar and concrete placement. Continue mechanical, electrical and fire suppression piping installation on all levels. Begin parapet walls. Continue precast stair erection and elevator equipment installation. Prep and paint CMU walls. Begin systems rough-in at systems rooms.
- Utility & Drainage Work: Continue water and sewer service line installation for the Garage and coordinate with SPU for service connections. Maintain TESC.

Closely Monitored Issues

- Schedule slippage on elevated structure and garage, largely due to labor shortages. Contractor revised schedule logic to have concurrent work to mitigate this issue.
- Seattle Fire Department request to renumber the garage floors was resolved with minimal impact.
- Elevator installation for parking garage is critical to opening on schedule. Early coordination with L&I planned to ensure timely inspections.
- Standby generator tap may be added at the garage and station. Design review for this work is underway to determine if work can be expedited for the garage.

Cost Summary

Present Financial Status	Amount			
N160 Contractor—Absher Construction				
Original Contract Value	\$	174,000,000		
Change Order Value	\$	4,901,561		
Current Contract Value	\$	178,901,561		
Total Actual Cost (Incurred to Date)	\$	105,650,872		
Financial Percent Complete		59.1%		
Physical Percent Complete		56.6%		
Authorized Contingency	\$	17,400,000		
Contingency Drawdown	\$	4,901,561		
Contingency Index		2.0		



Setting forms for Parking Garage Stairs

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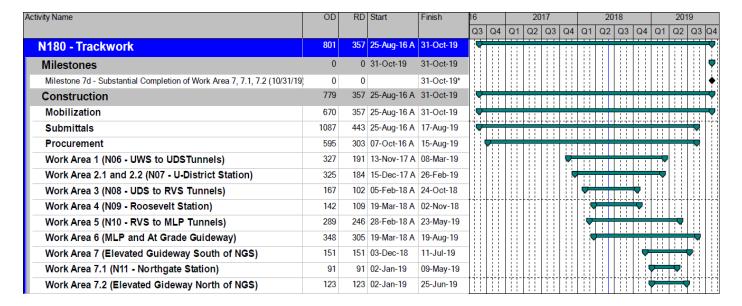
Contract N180 - Trackwork UWS to Northgate Station

Current Progress

The N180 Contractor, Stacy and Witbeck, Inc. (SWI) is currently installing Floating Slabs in the Northbound tunnel, and forming and pouring the support slab in the Southbound tunnel. The spare rail has been moved to an ST storage site and rail distribution in the tunnels is ongoing. Prep work is underway for the Stair Tower at Maple Leaf Portal (MLP). Construction of the skeleton track will begin at the UWS end of the Northbound tunnel in early June.

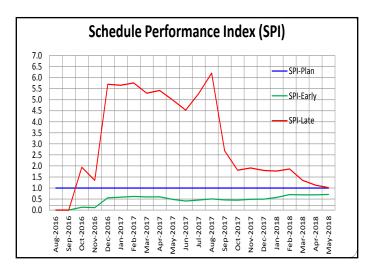
Schedule Summary

The N180 schedule for May forecast no changes in achieving the project milestones. The critical path is unchanged and is driven by rail welding and placement of the trackwork in Work Area 3, then Area 5 and finally on the Elevated Guideway, Work Area 7. The current schedule forecasts a ten day early completion.



Schedule Performance Index

The Contractor continues to perform ahead of the late schedule SPI 1.02 and behind the early schedule SPI 0.71. 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.



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Next Period's Activities

- Continue install of control survey in both tunnels.
- Complete concrete pours for floating slab support surfaces.
- Continue casting 3'-10" and 7'-10" floating slabs, and trench caps.
- Continue 5Hz isolation pads production.
- Complete Flash Butt Welding and distribution of rail into tunnels.
- Continue installation of floating slabs.

Closely Monitored Issues

• Frequency Response Testing (FRT) on floating slabs continues to produce excellent results with roughly 95% passing on the first pass. A handful of slabs have been lifted and had their bearing pads replaced after failing the first round of testing. Replacement of the pads seems to have rectified the issue and they've passed on the second round of testing. FRT is ongoing.

Cost Summary

Present Financial Status	Amount			
N180 Contractor—Stacy & Witbeck				
Original Contract Value	\$	71,455,950		
Change Order Value	\$	2,529,127		
Current Contract Value	\$	73,985,077		
Total Actual Cost (Incurred to Date)	\$	35,335,565		
Financial Percent Complete		47.8%		
Physical Percent Complete		57.0%		
Authorized Contingency	\$	10,718,393		
Contingency Drawdown	\$	2,529,127		
Contingency Index		2.02		



Crews removing the backfill materials from the N125 concrete cast drainage trench at MLP prior to the start of construction on the MLP stair tower.

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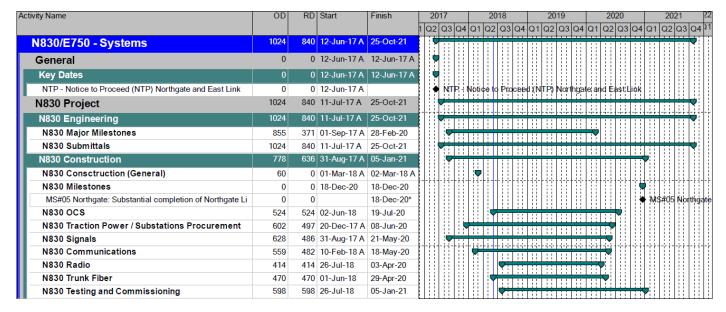
Contract N830 - Northgate Link Systems, Heavy Civil GC/CM

Current Progress

The N830 Contractor, Mass Electric, continues to focus on engineering efforts, including the design of communications, radio and signaling systems. MEC is continuing the EMI cable installation in conjunction with the installation of the floating slabs. Crews have also mobilized into the Northgate Station Parking Garage to begin installation of the systems components.

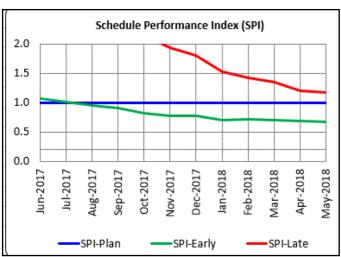
Schedule Summary

The N830 schedule for May continues to forecast an early completion of the work, in Mid-December 2020 with 13 days of float. Within the schedule the critical paths related to each station, as well as the overall alignment are unchanged. At UDS, critical activities are the 26kV power. At Northgate Station, the communications cable installation at the Parking Garage remains critical and Substantial Completion is driven by completion of the OCS throughout the alignment.



Schedule Performance Index

The Contractor (Mass Electric) continues to perform ahead of the late schedule SPI 1.17 and behind the early schedule SPI 0.68 in comparison to the baseline work plan. The Contractor initiated EMI installation and continues to procure subcontractor packages and developing engineering submittals. Once the majority of subcontractor packages are secured and the engineering submittals are progressed, the schedule will align with the baseline to allow for an accurate earned value measurements.



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Next Period's Activities

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

Closely Monitored Issues

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

Cost Summary

Present Financial Status	Amount			
N830 Contractor—Mass Electric Construction Co.				
Original Contract Value	\$	104,660,444		
Change Order Value	\$	200,924		
Current Contract Value	\$	104,861,367		
Total Actual Cost (Incurred to Date)	\$	14,444,631		
Financial Percent Complete		13.8%		
Physical Percent Complete		15.0%		
Authorized Contingency	\$	5,233,022		
Contingency Drawdown	\$	200,924		
Contingency Index		3.9		

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



NB EMI Cable Installation.

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Link Light Rail Lynnwood Link Extension



Project Summary

Scope

Limits North Seattle to Shoreline, Mountlake Ter-

race, 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

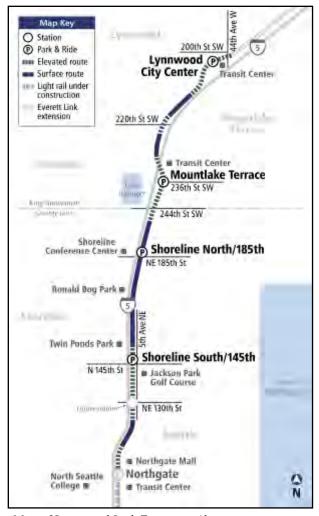
Systems Signals, traction power, and communica-

tions (SCADA).

Phase Final Design

Budget \$2.771 Billion Baseline Budget (Year of

Expenditure Dollars)



Map of Lynnwood Link Extension Alignment.

Schedule Revenue Service: Mid 2024

Key Project Activities

- On May 24, the Sound Transit Board approved the Lynnwood Link Extension project baseline scope, schedule and budget. The Board also approved the Access Enhancements Funding Agreement with the City of Mountlake Terrace.
- Briefed the Seattle Urban Forestry Commission on May 2nd, provided information on the plans for tree removal, restoration and mitigation along the alignment.
- Together with WSDOT, provided a briefing to members of the National Cooperative Highway Research Program (NCHRP)
 on May 3rd to exchange ideas on the study topic pertaining to "Successful Approaches to Accommodate Additional Modes
 and Services in Existing Right of Way".
- Staff from Sound Transit's Art Program (STArt) shared the art concept for the Mountlake Terrace Station with the Mountlake Terrace Arts Commission on May 15th.
- Issued SEPA Addendum on May 3rd.

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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 \$6.7M was incurred, of which \$1.4M was for advancing Civil & Systems Final Design; \$3.4M was incurred for Right-of-Way property acquisitions and relocations. The remaining expenditures were for third party coordination, permits, staff, legal, and other direct charges.

Commitment and Actuals under Construction Phase are related to construction permits, utility relocation, and early demolition activity.

Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$98.2	\$23.1	\$22.8	\$98.2	\$0.0
Preliminary Engineering	\$39.1	\$39.1	\$39.1	\$39.1	\$0.0
Final Design	\$164.2	\$82.8	\$66.6	\$164.2	\$0.0
Construction Services	\$128.4	\$18.0	\$10.7	\$128.4	\$0.0
3rd Party Agreements	\$14.6	\$8.5	\$4.2	\$14.6	\$0.0
Construction	\$1,921.4	\$11.9	\$1.0	\$1,921.4	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$235.7	\$98.7	\$86.9	\$235.7	\$0.0
Project Contingency	\$170.2	\$0.0	\$0.0	\$170.2	\$0.0
Total	\$2,771.6	\$282.1	\$231.2	\$2,771.6	\$0.0

Cost Summary by SCC

SCC Element	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$791.8	\$0.0	\$0.0	\$791.8	\$0.0
20 Stations	\$357.9	\$0.0	\$0.0	\$357.9	\$0.0
30 Support Facilities	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
40 Sitework & Special Conditions	\$397.0	\$11.6	\$0.8	\$397.0	\$0.0
50 Systems	\$244.4	\$0.0	\$0.0	\$244.4	\$0.0
Construction Subtotal (10 - 50)	\$1,793.0	\$11.6	\$0.8	\$1,793.0	\$0.0
60 Row, Land	\$235.7	\$98.7	\$86.9	\$235.7	\$0.0
70 Vehicles (Non-Revenue)	\$1.4	\$0.0	\$0.0	\$1.4	\$0.0
80 Professional Services	\$449.3	\$171.8	\$143.5	\$449.3	\$0.0
90 Unallocated Contingency	\$292.2	\$0.0	\$0.0	\$292.2	\$0.0
Total (10 - 90)	\$2,771.6	\$282.1	\$231.2	\$2,771.6	\$0.0

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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.

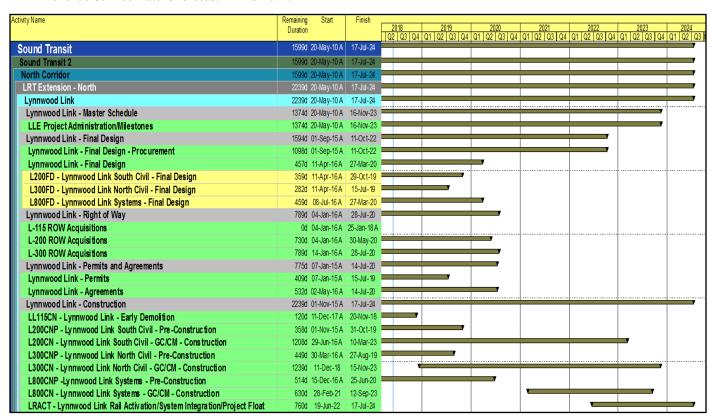
The project completed a full quantitative risk assessment workshop in November 2017, and received final results in February 2018. The most recent Quarterly Risk Review Workshop was held in March 2018. The next Lynnwood Link Quarterly Risk Review Workshop will be held in mid June 2018.

The following are the top project risks:

- FFGA approval and 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 schedule is shown below. The in-progress 90% Design Submittal was submitted to Sound Transit on April 6, 2018. The project was baselined on May 24, 2018. Civil Early Work construction is scheduled to begin in 1st QTR 2019. Lynnwood Link Revenue Service Date is forecast in mid-2024.



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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	1 Relocations Required I			
357	336	97	66	234	113		

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

- Board Motion R2018-15 authorized 31 additional parcels.
- Total Acquisitions decreased by 3, because of design refinements.

Community Outreach

- Planning continues for public meetings this summer (Mountlake Terrace June 13, Shoreline/Seattle June 27 and Lynnwood - July 25).
- Venues were confirmed, internal staff coordination and regular meetings started, the postcard announcement was final and sent for printing as other promotional activities began.
- Staff provided a briefing to the Seattle Urban Forestry Commission on 5/2, with project plans for planting vegetation and trees.
- Sent a notice to the email subscription list about the availability of the SEPA addendum including a link to the document online.



Lynnwood Open House

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Link Light Rail Lynnwood Link Extension



Sound Transit Board Actions

Board Action	Description	Date
R2018-15	Acquire Real Property Interests Required for the Lynnwood Link Extension.	May 24, 2018
R2018-16	Adopting the Lynnwood Link Extension baseline schedule and budget by (a) increasing the authorized project allocation to date to \$2,771,622,000, which includes a project contingency of \$170,162,000 requiring board approval for use of this contingency; (b) lowering the 2018 annual budget to \$229,256,177; and (2) changing the location of the 185th Station parking garage from the west side of I-5 to Sound Transit-owned property on the east side of I-5 adjacent to the station.	May 24, 2018
M2018-60	Execute an Access Enhancements Funding Agreement with the City of Mountlake Terrace for certain station area access enhancements.	May 24, 2018

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Civil Final Design Overview

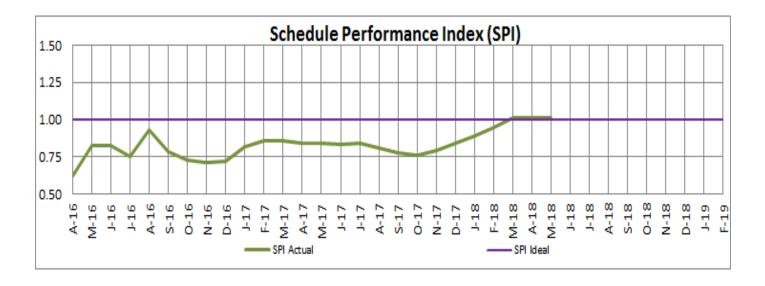
Sound Transit executed a professional services contract with HNTB Jacobs in April 2016 to perform civil final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive civil contract documents for construction, design coordination and cooperation with the GC/CM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

- Working toward IP-90 Cost Estimate submittals in July 2018.
- Preparing L200 Early Work 100% documents for June 2018 submittal.
- Preparing L300 Early Work 100% documents for July 2018 submittal.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 1.01 through May 2018, which means that the cumulative amount of work accomplished is consistent with the amount of work originally planned. The civil final design cost savings ideas development was completed in October 2017. Schedule performance is expected to stay consistent over the next couple of reporting periods, as civil design activities have restarted and cost savings ideas will be incorporated into the project design.

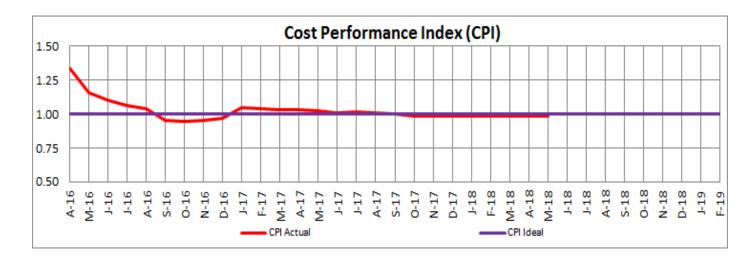


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Cost Performance Index

\$61.5M of the total contract amount, 85%, has been spent through May 2018. The civil final design percent complete is 84%, with an earned value of \$60.6M. The cumulative Cost Performance Index (CPI) through May is 0.99 indicating that expenditures are consistent with the earned value of work performed.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$61.5M
% Spent	85%
Earned Value	\$60.6M
% Complete	84%
SPI	1.01
СРІ	0.99

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Systems Final Design Overview

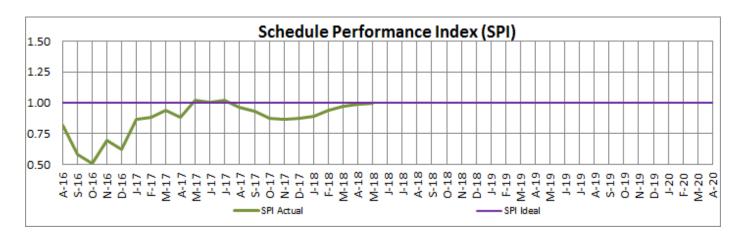
Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform systems final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive systems contract documents for construction, design coordination and cooperation with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

• Continuing work in support of the Systems In-Progress 90% submittal in August 2018.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 1.00 through May 2018, which means that cumulative amount of work accomplished is consistent with the amount of work originally planned. As the systems final design team is provided updated civil information, it is expected that SPI will continue to trend positive.

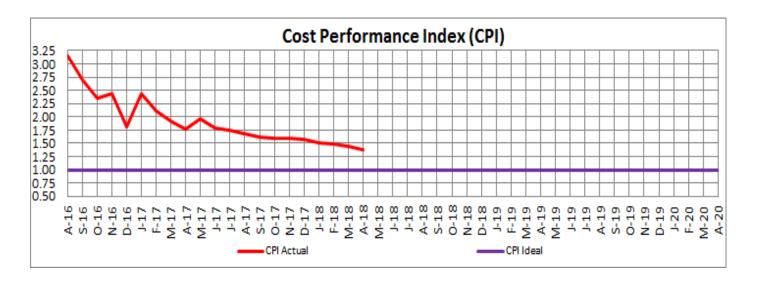


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Cost Performance Index

\$4.0 M of the total contract amount, 43%, has been spent through April 2018. The systems final design percent complete is 60%, with an earned value of \$5.6 M. The cumulative Cost Performance Index (CPI) through April is 1.39 indicating that expenditures are significantly lower than the earned value of work performed.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$4.0M
% Spent	43%
Earned Value	\$5.6M
% Complete	60%
SPI	0.99
СРІ	1.39

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Civil Construction Management Overview

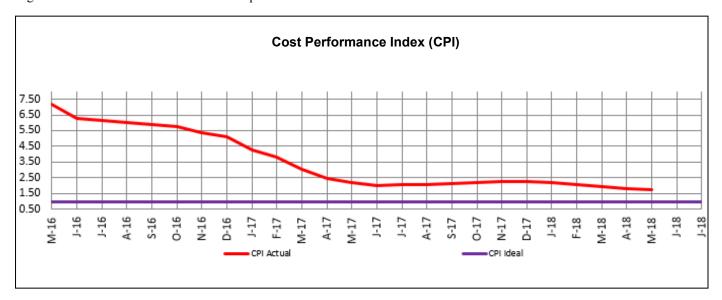
Sound Transit executed a professional services contract with PGH Wong in May 2016 to perform civil Construction Management (CMC) Services, including procurement support, permit support, contract document review, construction estimate reviews, participation in value engineering, risk assessments and constructability 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 In-Progress 90% design package.

Cost Performance Index

\$4.3 M of the total contract amount, 58%, is spent through May 2018, with an earned value of \$7.5 M. The cumulative Cost Performance Index (CPI) is 1.74, indicating that expenditures are significantly lower than the earned value of work performed. The Consultant assumed more support staff would be required early in the schedule and that has not been the case, leading to a high CPI. Phase 2 of the contract will be implemented in mid-2018.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$4.3M
% Spent	58%
Earned Value	\$7.5M
СРІ	1.74

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

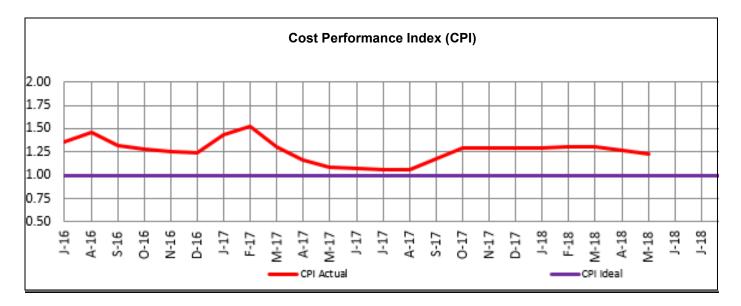
Sound Transit executed a professional services contract with Stacy & Witbeck Kiewit Hoffman in June 2016 to perform GC/CM pre-construction services for the L200 segment, including assistance in preparation of final construction plans including traffic control, preparation of schedules, reviewing right-of-way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

Current Progress

- Coordinating meetings with design, Construction Management Consultant, 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 In-Progress 90% design package.

Cost Performance Index

\$3.4M of the total contract amount, 67%, is spent through May 2018, with an earned value of \$4.2 M. The cumulative Cost Performance Index (CPI) is 1.23, indicating that expenditures are lower than the earned value of work performed. The preconstruction schedule has been extended; CPI is anticipated to trend closer to 1.0 in the future.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$3.4M
% Spent	67%
Earned Value	\$4.2M
СРІ	1.23

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

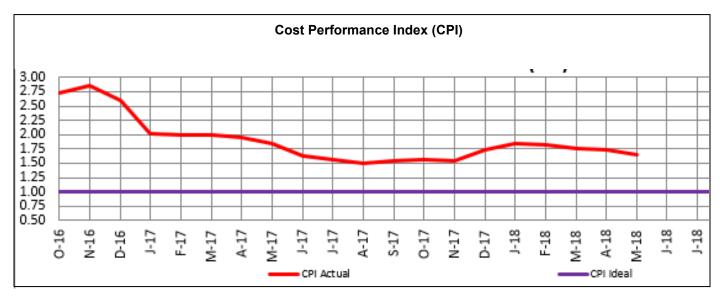
Sound Transit executed a professional services contract with Skanska in October 2016 to perform pre-construction services for the L300 segment, including assistance in preparation of final construction plans including traffic control, preparation of schedules, reviewing right-of-way needs, identifying 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, 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 In-Progress 90% design package.

Cost Performance Index

\$2.8M of the total contract amount, 54%, has been spent through May 2018, with an earned value of \$4.7M. The cumulative Cost Performance Index (CPI) is 1.66, indicating that expenditures are significantly lower than the earned value of work performed. The pre-construction schedule has been extended; CPI is anticipated to trend closer to 1.0 in the future.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$2.8M
% Spent	54%
Earned Value	\$4.7M
СРІ	1.66

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Link Light Rail

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



Project Summary

Scope

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

Phase Construction

Budget \$225.6 Million

Schedule Construction Complete: 2nd QTR 2018



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

Major Contracts

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

Key Project Activities

- Work outside the tunnels: Update and track equipment warranty items, finalize BIM software, complete Operations and Maintenance manuals, finalize planting and landscaping reviews.
- Mercer Island Tunnel: Continue to track warranty and equipment lists, continue to troubleshoot ASD parameter and lighting settings, PLC communication issues, and finalize other punchlist items.
- Mount Baker Ridge Tunnel: Continue to track warranty and equipment lists, resolve lighting issues, generator synchronization issue, PLC communication issues, and finalize other punchlist items.
- SCADA: Continue tracking equipment warranty lists and submit final documentation, and troubleshoot jet fan/SCADA communication issues.
- Simplex: Continue receiving final Simplex documentation and warranty information, and troubleshoot remaining Simplex programming 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 late 2nd Quarter 2018, due to the following:

 Challenges continue with MBRT emergency generator synchronization and ASD parameter & lighting settings. Additional round of testing is required.

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

Project Cost Summary

The following tables summarize the cost information for the I-90 Two- way Transit and HOV Operations (Stage 3) project. WSDOT has caught up on their invoice submittals, allowing resolution to past over-accruals and a more realistic expenditure forecast. With the Project nearing Substantial Completion, future expenditures continue tapering off as anticipated; May's monthly expenditure was \$404.1K. Tables below are in millions.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$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	\$18.8	\$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	\$182.1	\$164.8	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$204.7	\$186.6	\$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	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
40 Sitework & Special Conditions	\$180.6	\$190.7	\$182.1	\$164.8	\$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	\$204.7	\$186.6	\$225.6	\$0.0

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

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



Cost Contingency Management

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

	Base	line	Current					
Contingency Status	Amount	% of Total	Amount	% of Work				
Design Allowance	\$0.0	0.0%	\$0.0	0.0%				
Allocated Contingency	\$17.0	7.5%	\$2.5	6.7%				
Unallocated Contingency	ngency \$18.7		\$8.7	22.6%				
Total	\$35.7	\$35.7 15.8% \$		29.2%				

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

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

Project Schedule

Project Milestones for construction are indicated below; forecast dates were submitted by WSDOT as anticipated dates, but have not at this time been accepted. Ongoing negotiations between WSDOT and the contractor to resolve commercial issues has pushed the forecast Substantial and Physical Completion dates into 2nd and possibly 3rd QTR 2018.

Contract	Commis	Funnel ssioning plete	Substantial Completion			Roadway over	Physical Completion			
I-90 Two-Way Transit	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual		
& HOV Operations Stage 3	2/16/2017	Q1/2018	2/20/2017	Q2/2018	5/31/2017	6/14/2017 A	5/31/2017	Q2/2018		

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



Landscaping walk-through near Mercer Island Tunnel

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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 Belle-

vue, East Main, Bellevue Downtown, Wil-

burton, Spring District/120th, Bel-

Red/130th, Overlake Village and Redmond

Technology

Systems Signals, traction electrification, and com-

munications (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 phases of post tensioning work and electrical retrofit for cathodic protection; structural retrofit of east and west transition spans.
- *Mercer Island (E130)*: Ongoing retrofit of tunnel electrical and lighting and construction of station noise walls, barrier, and west head house structures; ongoing post-tensioning retrofit work; commenced rail delivery and welding.
- *IDS to Mt. Baker Tunnel (E130)*: Ongoing retrofit of tunnel electrical, seismic retrofits, and commenced JPS east head house excavation.

South Bellevue to Redmond

- South Bellevue (E320): Ongoing forms, rebar installation, construction of columns, pier caps and straddle bend; coordination of private utility relocation work; parking garage site excavation and installation of soldier pile walls.
- **Downtown Bellevue Tunnel (E330)**: Commenced work at the mid-access shaft and, placing the shotcrete in the breakout area in the adit tunnel, installing the traffic control and the perimeter fencing.
- **Downtown Bellevue to Spring District (E335)**: Continued Spring District trench wall construction with concrete and reinforce placement for main trench section footing slab of the station.
- **Bel-Red (E340)**: Ongoing full closure of 130th Ave NE until early July. Continue relocations and installations of both wet and dry utility work. Decommission wells at various locations.
- **SR520 to Redmond Technology Station (E360)**: Design Continue IFC validation on Systems, OVS Station and Pedestrian Bridge packages. Construction: Continued drilled shaft installation, utility protection and commenced girder erections.
- Systems (E750): Continue with submittals, components and product design. Coordinated Installation Plan discussions between civil and system contractors.

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Closely Monitored Issues

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

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 \$50M, pushing the total project cost from \$1.24B to \$1.29B. 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	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$186.2	\$186.2	\$70.4	\$69.9	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.8	\$54.7	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$245.5	\$206.2	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$196.8	\$58.2	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$38.5	\$16.9	\$52.2	\$0.0
Construction	\$2,544.3	\$2,544.3	\$2,139.5	\$619.3	\$2,544.3	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$298.2	\$298.2	\$264.2	\$262.9	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$3,009.7	\$1,288.1	\$3,677.2	\$0.0

Cost Summary by SCC

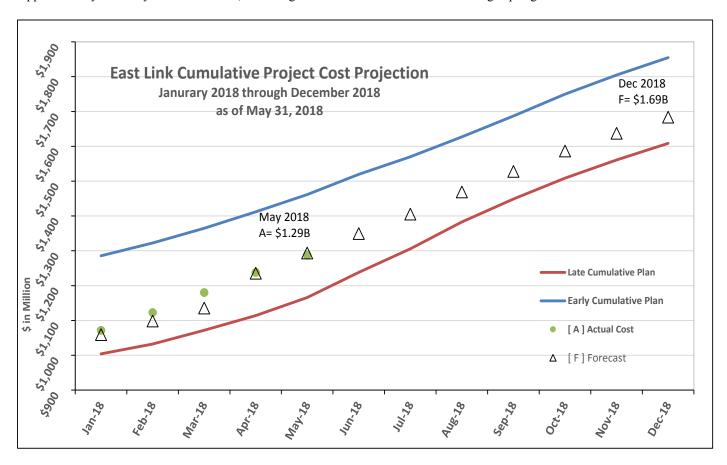
SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$744.6	\$949.7	\$885.0	\$309.7	\$962.1	(\$217.5)
20 Stations	\$397.7	\$474.2	\$432.7	\$86.5	\$471.0	(\$73.3)
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0 \$0.0		\$0.0
40 Sitework & Special Conditions	\$808.5	\$568.3	\$455.1	\$179.4	\$179.4 \$597.9	
50 Systems	\$353.8	\$367.9	\$345.3	\$345.3 \$35.6		\$24.7
Construction Subtotal (10 - 50)	\$2,304.6	\$2,360.1	\$2,118.1	\$611.1	\$2,360.1	(\$55.5)
60 Row, Land	\$288.5	\$288.5	\$264.2	\$262.9	\$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	\$627.5	\$414.1	\$889.1	\$9.3
90 Unallocated Contingency	\$182.9	\$136.6	\$0.0	\$0.0	\$136.6	\$46.2
Total (10 - 90)	\$3,677.2	\$3,677.2	\$3,009.7	\$1,288.1	\$3,677.2	(\$0.0)

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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 \$50M where Construction Phase is responsible for almost 89% or approximately \$44.5M of May's expenditure. Total project cost incurred to date approached \$1.3B, to which about \$574.8M was recorded in the Construction Phase. The project expenditures continue to pick up and is currently predicted to increase to approximately \$1.7B by December 2018, reflecting continued active construction through spring and summer.



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 (Q2, 2018) risks update for each of the major contract packages is scheduled to begin end of June. ST included participation of construction management consultants and construction contractors in its risks management program.

The following are the top project wide risks:

- 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.
- Timely completion of the I-90 floating bridge post tensioning in the Summer of 2018.

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Contingency Management

East Link project budget was baselined on April 2015 with a total contingency of \$795.9M. At the end of March 2018, all major construction contracts have been procured, the total contingency balance stands at \$427.6M (previously \$434.1M). 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 ~\$1.1M from \$287.1M to \$285.9M. This contingency draw is primarily driven by aggregation of construction change orders throughout the project.

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

Contingency Status

Contingency	Base	eline	Current Status					
Туре	Amount	% of Total Budget	Amount Remaining	% of Work Remaining				
Design Allowance	\$184.1	5.0%	\$3.6	0.1%				
Allocated Contingency	\$428.9	11.7%	\$285.9	11.7%				
Unallocated Contingency	\$182.9	5.0%	\$136.6	5.6%				
Total	\$795.9	21.6%	\$426.2	17.5%				

Contingency by Type

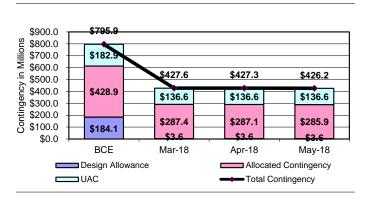
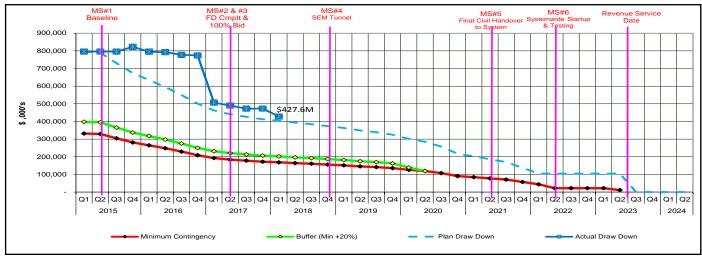


Table figures are shown in millions.

Contingency Drawdown

At the end of the first quarter 2018, East Link Project's total contingency drawdown plan is trending as planned. Total contingencies balance is approximately \$427.6M and with all major construction contracts procured, remains above the baseline draw down projection and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels.



Graph for Quarter ending March 2018

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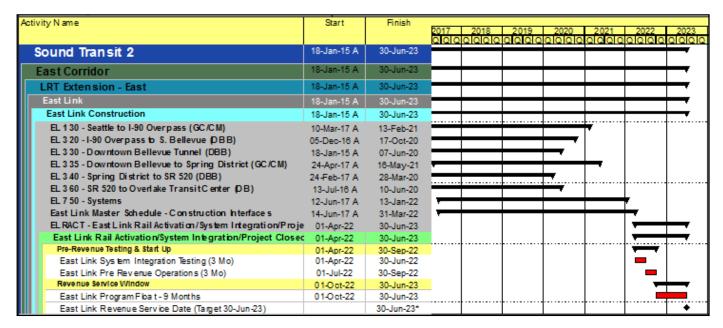


Project Schedule

The Integrated Master Schedule is presented below.

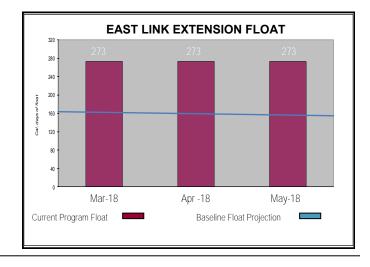
E130 continued installing reaction frames in preparation for post-tensioning in June; work continued on Mercer Island Station and D2 roadway seismic retrofit. E320 completed drilled shafts at I-90 and has begun work at the other end of the aerial guideway; they began work at the Sweyolocken mitigation site; installation of the PSE ductbank is complete. E330 continues to make progress in tunnel excavation and will likely "hole through" in July/August. E335 continued work on the north portal cut and cover structure; continued formwork and sound walls at E Main Station; and completed concrete placement for aerial span over 112th Ave. E340 continued relocation of private utilities; construction of retaining walls along 136th; and set girders for the bridge. E360 completed drilled shafts for the aerial guideway and began setting girders; continued constructing soil nail and cast -in-place walls. A safety stand-down stopped work for a week. While the Contractor is back to work, the girder placement is planned to resume in July and no impact to project completion is anticipated. E750 Systems Contractor continued product and component designs. This phase of work will be on-going for the next two years. 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. At baseline, it was predicted that 123 days of float would have been utilized by this period; however, none has been expended to date.

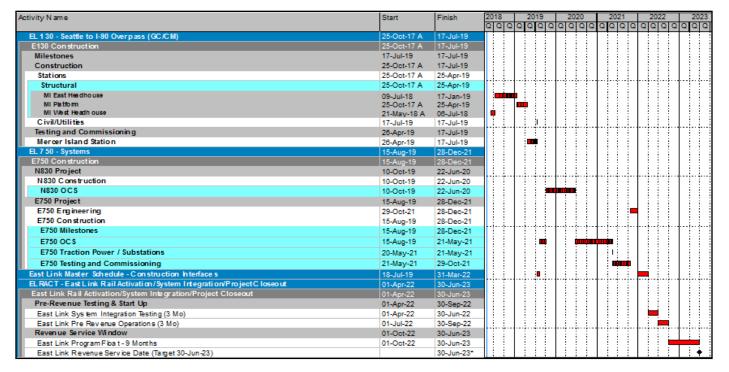


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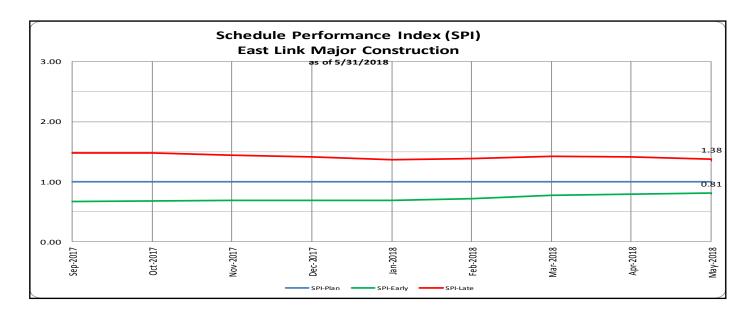
Critical Path Analysis

The East Link critical path currently runs through the handover of the Mercer Island Station and the East Channel Bridge from E130 to E750. This is then carried by E750's OCS installation along both East Link and Northgate Link alignments, and then to the tie-in to TPSS at Rainier and W. Mercer and then through integrated testing along the full alignment.



Schedule Performance Index

The early Schedule Performance Index (SPI) for East Link's Major Construction Packages is at 0.81 for this period, which continues the upward trend of previous months. The late SPI is at 1.38 showing that in general, performance is satisfactory.



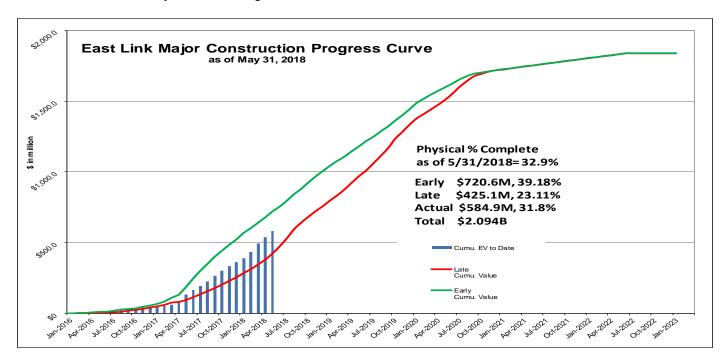
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Project Cash Flow Projection

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 May, 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 32.9%.

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





E130 Seattle to South Bellevue: Core drilling in very confined space in the bridgespan on I-90

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Right-of-Way

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

ACQUISITION				RELOCATION				
Total Acquisitions	quisitions Board Approved Offers Made to date Closings to date Relocations		Relocations Required	Relocations Completed to date				
237	244	234	223	227	220			

Community Outreach

- On-going distribution of weekly construction alerts for maintenance of traffic activities for Mercer Island, Bellevue and Redmond.
- Held construction Kick-Off Open House for the start of Judkins Park Station construction.
- Engaged property owners and impacted neighbors on a variety of concerns.
- Coordinated briefings and meetings with impacted neighbors especially regarding the one-way scenario on 13th Place NE in Bel-Red segment; night time closure of NE 116th and NE 8th Street in downtown Bellevue/Wilburton and 8 week night time closure of all I-90 ramps leading to Bellevue.



E320 Downtown Bellevue to Spring District: Soldier pile—tie-back grouting in support of wall constructions.

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Link Light Rail East Link Extension



Sound Transit Board Actions

Board Action	Description	Date
	None this period.	

Construction Safety

Data/ Measure	May 2018	Year to Date	Project to Date
Recordable Injury/Illness Cases	3	12	25
Days Away From Work Cases	0	1	2
Total Days Away From Work	0	52	54
First Aid Cases	6	34	64
Reported Near Mishaps	11	51	143
Average Number of Employees on Worksite	925	-	-
Total # of Hours (GC & Subs)	136,726	722,357	1,424,810
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	4.39	3.32	3.51
LTI Rate	0.00	0.28	0.28
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).



E335 Downtown Bellevue to Spring District: Form installation on column

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

Current Progress

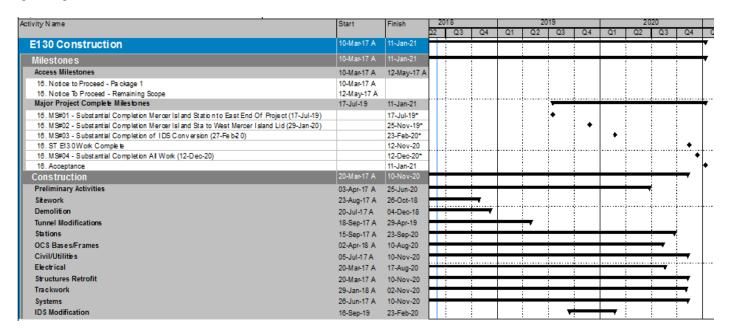
D2 Structure & Mt. Baker Tunnel (West Segment): Ongoing seismic retrofit of Rainier Ave Bridge, Mount Baker Tunnel, and the west approach; begin Judkins Park Station east head house excavation.

Floating Bridge Retrofit (Center Segment): Ongoing phases of post tensioning work; ongoing electrical retrofit for cathodic protection; installation of OCS bases.

Mercer Island (East Segment): Ongoing structural retrofit and retrofit of tunnel electrical and lighting; ongoing construction of Mercer Island Station and east/west head house structures; begin rail delivery and welding.

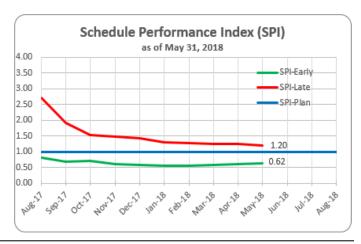
Schedule Summary

The critical path for this project continues to run through access to the D2 roadway and subsequent 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.



Schedule Performance Index

This period, the SPI early is 0.62, SPI late is 1.20. 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 support the fact the Contractor encountered challenges in the initial phases of the post-tensioning scope, but is catching up to their baseline plan and have now completed loading all remaining reaction frames into the pontoons. The anticipated completion of post tensioning work is mid-summer 2018.



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Next Period's Activities

- West Segment: Continue retrofit of tunnel electrical; continue seismic retrofit of structures; continue excavation of Judkins Park Station site.
- HMH Floating Bridge (Center Segment): Continue cathodic protection activities; continue post tensioning work; continue as-built structure scanning; continue track deliveries.
- **East Segment**: Continue retrofit of tunnel electrical; continue MI Station construction, East Channel Bridge structure retrofit; continue rail delivery & welding.

Closely Monitored Issues

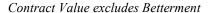
- Various methods to verify the location of post-tensioning are being discussed with the Contractor and WSDOT.
- Timely issuance of the Street Improvement Permit (SIP) by the City of Seattle.

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	\$8,643,909
Current Contract Value	\$672,688,909
Total Actual Cost (Incurred to Date)	\$178,109,541
Financial Percent Complete	26.5%
Authorized Contingency	\$46,660,541
Contingency Drawdown	\$8,643,909
Contingency Index	1.4





Concrete surface preparation work in a pier underneath I-90 in the Judkins Park Station site.

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Contract E320 - South Bellevue

Current Progress

I-90 Flyover: Ongoing formation and installation of rebar and placement of concrete for shaft columns, piers and straddle bent.

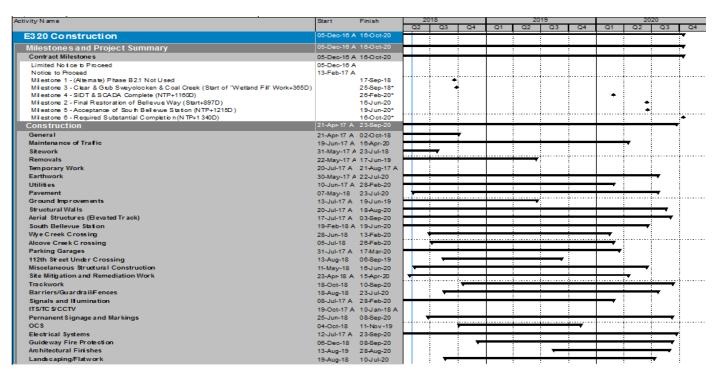
Park-and-Ride: Formed, installed rebar and placed concrete grade beams and pile caps.

Bellevue Way SE: Installed stone columns. Construction of access road and installation of embankment surcharge at Winters House.

Wye-to-East Main: Installation of underground PSE duct bank and other utility structure. Retaining wall and soil nailing work along 112th Ave SE. Removal of sheet pile.

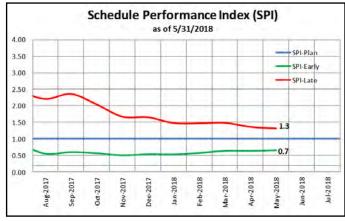
Schedule Summary

The Contractor's April update is shown below. The May schedule was rejected due to negative float ahead of Milestones 5 and 6. The Contractor is preparing a recovery schedule and is expected to have a mitigation plan in place by the June update.



Schedule Performance Index

This period, the SPI early is at 0.7 and the SPI late is at 1.3. 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. The SPI early and SPI late are holding steady compared to the previous month level.



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Next Period's Activities

- Continue work on elevated guideway columns and shafts, as well as station and parking garage structures.
- Continue stone columns installation on Bellevue Way
 SE, as well as embankment surcharge at Winter House.
- Continue PSE underground duct bank and other utility works on 112th.

Closely Monitored Issues

- Working adjacent to wetland areas, environmental compliance concerns.
- Refinement to the three-lane reversible MOT on Bellevue Way SE.
- Potential archeological discovery at Winters House site.



Cost Summary

Present Financial Status	Amount*
E320 Contractor - Shimmick/Parsons J\	<i>I</i> .
Original Contract Value	\$319,859,000
Change Order Value	\$1,622,267
Current Contract Value	\$321,481,267
Total Actual Cost (Incurred to Date)	\$93,996,287
Financial Percent Complete	29.2%
Authorized Contingency	\$38,532,000
Contingency Drawdown	\$1,622,267
Contingency Index	6.9
* \$ Amount exclude betterment and STArt.	



Tying rebar on wall formwork on the pier table along I-90 Flyover support structure.

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Contract E330 - Downtown Bellevue Tunnel

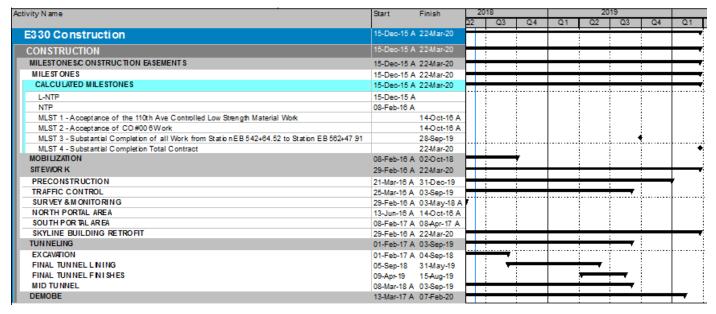
Current Progress

SEM Tunneling: Continued excavation and progressed approximately 113 LF this period, which completed about 1,711 LF of the total excavation of 1,994 LF, spiles were installed in the right heading as was required for excavation next to Skyline Building. Continued hauling of the muck offsite and material delivery onsite.

Between Portals: Completed construction of the ring beam for mid-tunnel access, started shaft excavation from within shaft and completed placing shotcrete on to the breakout section for the mid-tunnel adit connection. Continued monitoring instrumentation along tunnel alignment.

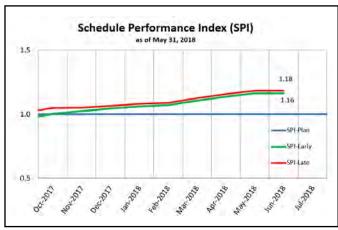
Schedule Summary

The critical path for this contract follows the tunnel excavation and the completion of the South Portal structure. Tunneling continues to exceed estimated production rates. The Contractor's cumulative rate is 4.66 LF/Day. The Contractor is now forecast to finish excavating in September 2018 and to achieve Substantial Completion ahead of their contractual requirements.



Schedule Performance Index

For the month of May, the SPI early is at 1.16 and the SPI late is at 1.18. Project tunneling to date is (4.66LF/Day) compared to originally planned (3.3 LF/Day). The trend is increasingly pointing to an early completion of tunneling. The trend continues moving in the positive direction, due to good ground conditions encountered in the past and elimination of the spiles that were not required through out tunneling.



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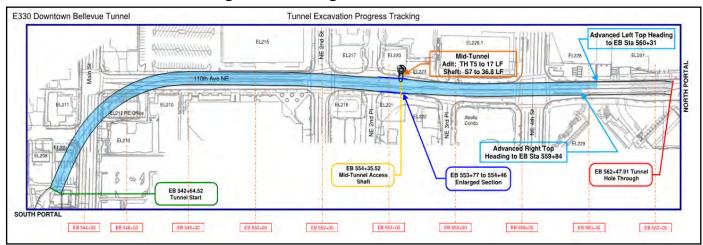
Next Period's Activities

- SEM Tunneling: Continue excavation of the tunnel.
 Muck hauling and material deliveries. Complete excavation next to and pass Skyline building.
- Between Portals: Complete excavation of mid-tunnel shaft and adit. Start and finish the waterproofing and final lining invert of the Adit/Shaft. Haul Road survey is scheduled for month of June.

Closely Monitored Issues

- City Of Bellevue requires additional permits for the installation of the electrical and fire alarm conduits in the tunnel. The additional permit requirements may result in additional changes to the contract drawings, which, in turn, could result in additional cost to Sound Transit.
- Implementation of Washington State Initiative 1433 requiring paid sick leave, will result in additional costs for craft labor that were not contemplated at time of Total Contract Cost negotiation.

E330 Tunnel Excavation Progress Tracking (As of 5/31/2018)



Cost Summary

Preset Financial Status	Amount							
E330 Contractor- Guy F Atkinson Construction, LLC.								
Original Contract Value \$121,446,55								
Change Order Value	\$1,447,619							
Current Contract Value	\$122,894,170							
Total Actual Cost (Incurred to Date)	\$80,111,278							
Financial Percent Complete	65%							
Authorized Contingency	\$12,144,655							
Contingency Drawdown	\$1,447,619							
Contingency Index	5.5							



Applying 1.5" smoothing layer at mid-tunnel shaft

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

Current Progress

Area 1: East Main Station: Continued formwork and reinforcing sound walls along East Main Station.

Area 3: North Portal/City Garage/BTC Station: Completed bottom mud slab pour and started waterproofing walls of the north portal cut and cover structure and City Hall Parking level P2 and P3. Completed P2 of City Hall Garage walls and poured P1 deck and post-tensioned.

Area 4: Aerial Guideway: Completed concrete placement for span over 112th Ave NE. Completed installation of the long span over I-405 false work and started forming for the base slabs.

Area 6: 120th-124th Trench/Station: Trench wall construction continued this period with concrete and reinforcement placement for the main trench section footing slab east of the Station box.

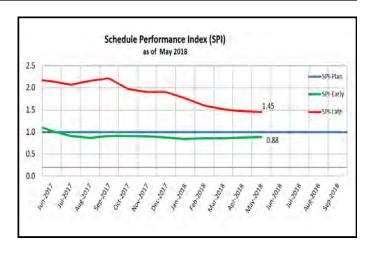
Schedule Summary

There are two primary critical paths for this contract, corresponding to the two handovers to the E750 Systems Contractor — one runs through the North Portal and BTC station work in Area 3, and the other follows access to the SEM tunnel (E330 contract) in Area 2 and goes through the South Portal and the South Portal Electrical Building. That work will not start until mid-2020. The Contractor is currently one week behind their first interface milestone, which is trending back toward on-time completion after being two weeks behind in April.

Activity N ame	Start	Finish	2	018			20)19			20)20			2
			22	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
E335 Construction	24-Apr-17 A	16-May-21	т								:	:			_
Milestones	04-May-18 A	4 16-May-21	H	•			_		+		•	:		\vdash	_
Contract Milestones	30-Sep-18	16-May-21	ш	1 1	Ť	_	: -	:	÷		: -	: -	: -	-	_
Milestone #1 - Complete North Potal Headwall Temporary Shoring		30-Sep-18*	1		•										
Milestone #2 - Complete SDT's for Interface to SCADA		14-Jan-20*	1							+					
Milestone #3 - Complete Trackway and Stations for Primary Systems Access - BTC to EC	F	13-May-20*		1	Ť		.		Ť	·		Ť	i	····	
Milestone #4 - Complete SBM Tunnel Trackwork for Primary Systems Access		16-Jan-21*	1											+	
Milestone #5 - Complete All Trackway and Stations for Primary Systems Access		16-Mar-21*	1												
Milestone #8 - Substantial Completion of all Work		16-May-21*	1												+
Calculated Milestones	04-May-18 A	4 09-May-21	н-	: -	:		:	:	+		:	:	:	-	
E335 Achieves Milestone #1		04-May-18 A	1		:		:	:	Ţ	1		:	:		
E335 Achieves Milestone #2		13-Jan-20	1							*					
E335 Achieves Milestone #3		20-May-20									+				
E335 Achieves Milestone #4		16-Jan-21												+	
E335 Adhieves Milestone #5		07-Mar-21	L.L.	<u>. i</u>	<u> </u>	l	<u>i</u>	<u> </u>	<u>. i</u>	l	<u>.</u>	<u>i</u>	<u> </u>		İ
E335 Achieves Milestone #6		09-May-21	1												*
Construction	24-Apr-17 A	09-Apr-21	т	1					!						7
Mobil ization	24-Apr-17 A	24-Apr-17 A	1												
Area 1: E. Main Station to South Portal (531+55 - 538+00)	11-Oct-17 A	09-Apr-21	H	: -	:		:	:	: -		:	:	:	\vdash	Ť
Are a 2: South Portal to SEM Tunnel (538+00 - 562+47.91	29-Jun-18	30-Mar-21	ш	←	:		:	:	: -		:	: -	:		ŧ
Are a 3: North Portal to Aerial Guideway (562+50 - 568+45)	24-Apr-17 A	30-Mar-21	-	:	:		:	:	:		:	:	:		₹
Are a 4: Aeri al G ui deway (568+45 - 606+59)	24-Apr-17 A	30-Mar-21	Н-	: -	: -	_	: -	-	: -	_	: -	: -	: -	—	÷
Area 5: Pine Forestto 120th (606+59 - 619+00)	07-Jul-17 A	30-Mar-21	Н-	-	:		:	:	: -		: -	:	:	—	ŧ
Are a 6: 120th - End of Project (619+00 - 634+99)	01-Aug-17 A	20-Apr-20	₩	÷	:	_	:	:	÷	_	.				
Testing and Commissioning	05-Dec-19					l						! 			

Schedule Performance Index

This period, the SPI early is at 0.88 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. This is supported by the fact that completion of the final cut/fill to grade and start of work at road intersections in Area 5 will take place later than anticipated. The material delivery of rail, ties and special track works has been delayed and will happen later in 2018; also, delivery of pre-cast girders is later than it was planned. Work at the north portal and open cut excavation at 120th to 124th are ahead of schedule while installation of signal duct bank and start of work on track walls are behind schedule.



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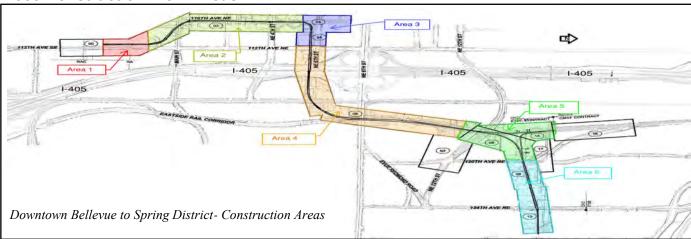
Next Period's Activities

- Area 3: N Portal/City Garage/BTC Station: Continued waterproofing at North Portal and City Hall Garage and prepped for future road panels at 110th NE.
- Area 4: Aerial Guideway: Continue formwork for long span base slab placement and reinforcing and concrete pour for columns. Set concrete girders over NE 8th Street and 116th Ave NE at nights with full road closures.
- **Area 6:** 120th-124th Trench/Station: Mobilize 100-ton crane and start staging set up for 120th Ave NE station.

Closely Monitored Issues

- Recent RFIs have identified the need to revise the wye special track work. The impact to this change has the potential to delay installation of Overhead Catenary System pole foundation and System's OCS work.
- Completion of retained cut through the Spring District and undercrossing of 124th Ave NE is being delayed by challenges by Seattle City Light relative to the City of Bellevue's construction as it impacts their utility easement through the area. The issue was argued at State Supreme Court, decision is expected in early summer.

E335 Construction Work 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	\$3,957,463
Current Contract Value	\$397,755,673
Total Actual Cost (Incurred to Date)	\$100,278,669
Financial Percent Complete	25.2%
Authorized Contingency	\$19,689,911
Contingency Drawdown	\$3,957,463
Contingency Index	1.3



North Portal row A center pile repair (Area 3)

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Contract E340 - Bel-Red

Current Progress

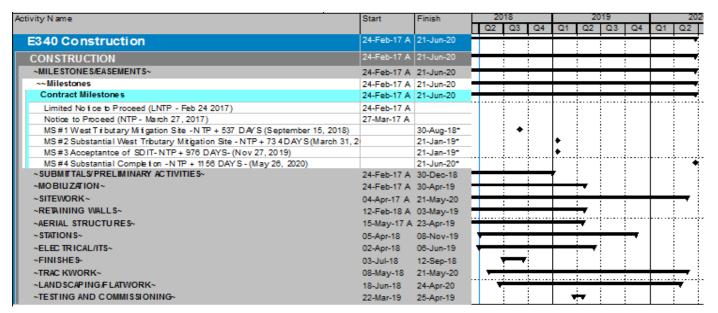
King County Sanitary Sewer relocation is progressing ahead of schedule; all installed lines have been pressure tested. Century Link continues on backbone relocation. The bridge crew poured the footing at abutment located in the beginning of the project to 130th Ave. Placed electrical and systems conduit crossings on 136th Pl. On going backfills from excavation along 130th Ave. NE. Fine tuning dewatering operations on the Evans' property in preparation for 48" reinforce concrete pipe.

Schedule Summary

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

The contractor's March update is presented below. It shows a delay of 27 days. This schedule has been rejected due to noncompliance. A recovery schedule with mitigations and potential float allocation is currently being developed. The CM team is monitoring this situation and work continues to progress as planned.

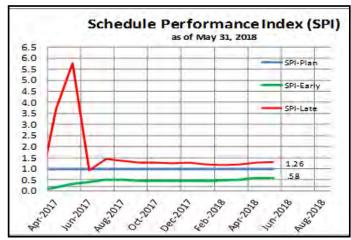
E340 is not on the critical path of East Link Project.



Schedule Performance Index

The Contractor has not submitted May 2018 data. The delay in submittal is due to the Contractor is preparing the recovery schedule. This Schedule Performance Index (SPI) graph presented this period is based on an estimate. Currently, the SPI early is at 0.58 and the SPI late is at 1.26.

The monthly update will be reconciled once the Contractor submits their progress documents.



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Next Period's Activities

- Ongoing closure on 130th Ave. Traffic shifts to one way on 136th Place.
- Finish work on storm drain, water line and dry utilities on 130th Ave. NE. Preparing to build subgrade.
- Start waterline installation on 136th Place.
- Continue form, pour, strip retaining wall and tying steel in between 130th Ave to Spring Boulevard.
- Preparing for Contractor to mob for soldier pile wall next to 124th Ave.
- Preparing for wetland mitigation efforts and begin excavation at Kelsey Creek.
- Continue decommissioning wells.

Closely Monitored Issues

- Delayed start on west end of the segment, Mid-Lakes
 Pump Station Force, main re-lining scope on 130th Ave
 NE, and 124th Ave bridge project cumulatively has potential to impact project.
- Disputed Seattle City Light property easements is impacting City of Bellevue's 124th Avenue bridge construction, Supreme Court ruling expected in early this summer
- Ongoing utility conflicts (including un-marked/ unidentified) encountered within the roadway and private properties.
- CenturyLink delay on the new duct bank could affect critical path of work activities.

Cost Summary

Present Financial Status	Amount							
E340 Contractor- Max J Kuney								
Original Contract Value	\$93,170,012							
Change Order Value	\$2,025,517							
Current Contract Value	\$95,195,529							
Total Actual Cost (Incurred to Date)	\$30,081,661							
Financial Percent Complete	32%							
Authorized Contingency	\$9,317,000							
Contingency Drawdown	\$2,223,765							
Contingency Index	1.32							



Installation of the drainage pipe and drainage structure on 130th Ave NE facing west.

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

Current Progress

Design: Advanced design packages for the following areas: SR520 Permanent Roadway 100% submittal preparation, Systems Design continue IFC validation (Rev 2), Civil Systems continue 100% submittal preparation, and continue IFC validation for OVS station. Continue IFC development for OVS pedestrian bridge substructure and superstructure design packages.

Construction: Aerial guideway structures continue in Work Area #2: four drilled shafts placed to complete deep foundation work, five columns, and three caps placed. Girder erection started along the aerial guideway with five spans erected; however due to a fatality a safety stand down was held during the last week of May. Work Area #5 continue cast-in-place wall 13A and mass grading along the at-grade guideway. Work Area #6 (RTS) continue WSDOT utility protection and replacement, backfill of demo existing WSDOT vault and complete tower crane installation.

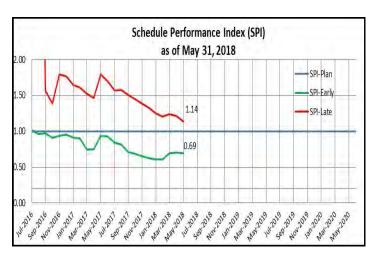
Schedule Summary

The critical path for this project follows the aerial guideway through track work. The contractor is currently forecast to complete this contract on schedule.

Activity Name	Start	Finish	2018			2019			
			22	Q3	Q4	Q1	Q2	Q3	Q4
E360 Construction	13-Jul-16 A	19-Dec-19	П						-
Base Contract	13-Jul-16 A	19-Dec-19	Н	:	:			:	•
Design	13-Jul-16 A	21-Sep-18	-	; ,	Ė				
Design Milestones	03-Oct-16 A	06-Sep-18	-						1
Design Submittals Start		03-Oct-16 A							: I
30% Design Submittals Complete		28-Oct-16 A	1.1.			1			
60% Design Submittals Complete		26-Feb-18 A							: 1
100% Design Submittals Complete		13-Jul-18	1	•					1
IFC Design Submittals Complete		06-Sep-18	1						: 1
Design Overhead	13-Jul-16 A	18-Jul-17 A							
Design and Engineering	13-Jul-16 A	21-Sep-18		•	Š.				
Construction	13-Jul-16 A	19-Dec-19	Н-	: -	:			:	
Genera I	13-Jul-16 A	19-Dec-19		•					
Project Milestones	13-Jul-16 A	19-Dec-19	-	•					
Notice to Proceed	13-Jul-16 A		11						1
Civil Systems 100% Design Submittal (NTP+300d) (09-May-2017)		10-Apr-17 A	1.1.		:	1			
Substantial Completion		22-Oct-19							
Actual Acceptance of all Work		19-Dec-19							. •
WA #1 -Track Slab Guideway	22-May-17 A	25-Sep-19	+	: -	:			ͺ	<i>t</i>
WA#2-Aerial Guideway	01-Jun-17 A	02-Oct-19		:	:			:	₹
WA#3-Balbasted Guideway Block#1	08-Jun-17 A	25-Jul-19		;	:				
WA#4-Overlake Village Station	14-Jul-16 A	11-Oct-19	+	:	:			:	₹
WA #5 - Balla sted Guideway Block #2	15-Aug-17 A			:	:			_	: 1
WA#6-Overlake Transit Center	01-May-17 A			:	:				
WA #7 - O VS Pedestrian Bridge	13-Aug-18	03-Oct-19	J. J.		:				₹
WA#8-OTC Pedestrian Bridige	22-Oct-19	22-Oct-19		:	:				₹

Schedule Performance Index

This period, the SPI early is 0.69 and SPI late is 1.14. The early SPI value continues to reflect slippage of early finish of baseline plan. ST directed stoppage of RTC Pedestrian Bridge due to Microsoft reevaluation of the bridge contributed to the slippage as well. Drilled shaft work continued to show excellent progress. A week long safety stand down was held in response to a fatality. Construction work resumed on May 30th with the exception of superstructure work which is planned to recommence in July.



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Link Light Rail East Link Extension



Next Period's Activities

- Design: Civil SR520 100% design package ongoing development; complete Systems Design Guideway and OVS IFC validation. Continue OVS Pedestrian bridge IFC.
- Work Area #2: Ongoing rebar fabrication and placement.
 Column/cap placement and girder installation is on hold and is planned to be resumed in July.
- Work Area #4: Continue excavation for OVS Station and begin barrier wall footing form/reinforce/place.
- Work Area #5: Continue construction of wall 13A and mass excavation. Start construction ballast track walls.
- Work Area #6: Continue permanent utilities (storm and sewer). Start FRP track wall footings.

Closely Monitored Issues

- Microsoft continues on 60% designs for an alternative pedestrian bridge. Contract amendment will be required.
- Contractor, ST and City of Redmond continue to work out permitting issues having commercial impacts.
- Commercial Issues on Sales Tax Increase, 152nd Street Utility DSC, Waterline Routing at OTC and As-Built Specification.
- Clearance requirements between the WSDOT Aggregate Disposal Site access road and aerial guideway.
- Timeliness of Construction Work Plan submittals.
- Design QC process for remaining bid packages.
- Worker safety and post incident investigation.

E360 Construction Work Areas



Cost Summary

Present Financial Status	Amount						
E360 Contractor— Kiewit-Hoffman							
Original Contract Value	\$225,336,088						
Change Order Value	\$664,637						
Current Contract Value	\$226,000,725						
Total Actual Cost (Incurred to Date)	\$89,733,285						
Financial Percent Complete	39.7%						
Authorized Contingency	\$23,071,580						
Contingency Drawdown	\$664,637						
Contingency Index	13.7						

Contract Value excludes Betterment



Workers setting WSDOT storm casing along SR520 (Work Area #6).

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Link Light Rail Downtown Redmond Link Extension

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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 Red-

mond.

Alignment The extension starts at Redmond Technolo-

gy 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 com-

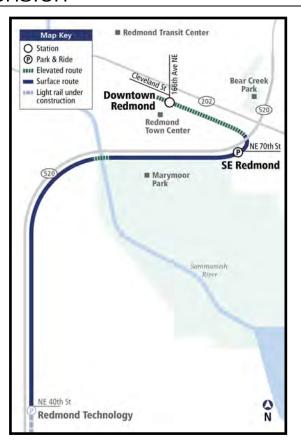
munications (SCADA)

Phase Planning

Budget \$26.6M (Preliminary Engineering, exclud-

ing Right-of-Way)

Schedule Revenue Service: 2024



Map of Downtown Redmond Link Extension

Key Project Activities

- Continued Design Build Project Management (DBPM) procurement process and preparation for ST Board approval to award contract for Phase 1 of 2 scope.
- Continued working on resolving the comments on the 15% plan set.
- Continued partner agency agreements negotiations. Focusing on impact mitigation, staffing resources, permitting and design preferences.
- Continued drafting of RFQ/RFP for the Design Build contract package for Downtown Redmond Link Extension.
- Received comments on NEPA Re-Evaluation/SEPA Addendum from FTA.

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Link Light Rail Downtown Redmond Link Extension

Project Cost Summary

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

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 this period, the Redmond Link project incurred approximately \$1.3M of expenses bring the total expenditure to date from \$15.4M to \$16.7M. Preliminary Engineering activities continue to be the primary cost driver with approximately \$800K spent in the month. Agency Administration cost amounting to \$250K were incurred. This period also accounted for a reclassification of past expenditure from PE to ROW in the amount of approximately \$697K.

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	\$2.7	\$2.5	\$4.9	\$0.0
Preliminary Engineering	\$21.3	\$19.5	\$12.9	\$21.3	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
3rd Party Agreements	\$2.8	\$0.3	\$0.2	\$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	\$147.0	\$1.7	\$1.1	\$147.0	\$0.0
Total	\$178.0	\$24.1	\$16.7	\$178.0	\$0.0

Cost Summary by SCC

SCC Element	Authorized Project Allocation	Commit- ment 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	\$1.7	\$1.1	\$140.0	\$0.0
80 Professional Services	\$29.4	\$22.5	\$15.6	\$29.4	\$0.0
90 Unallocated Contingency	\$8.6	\$0.0	\$0.0	\$8.6	\$0.0
Total (10 - 90)	\$178.0	\$24.1	\$16.7	\$178.0	\$0.0

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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 continues to develop its qualitative risk profile on an ongoing basis towards the Baselining of the project, anticipated to be around 4th QTR 2018. The project will complete a full quantitative risk assessment workshop in mid-July 2018, and anticipates draft results by the end of July 2018. There were no risk update from last period.

Currently, the highest risk areas are:

- 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; protracted negotiation with 3rd parties.
- Construction market conditions potential shortages of labor; inflationary pressure on materials due to demand as well as regulations (tariffs and taxes).

Project Schedule

The project schedule is presented below. The project is currently updating environmental analysis ahead of the ST Board adopting the project to be built. Property acquisitions have begun. The final draft of the RFP for the Design-Build procurement will be submitted to Sound Transit in July. The RFP is anticipated to be issued in 4th QTR 2018. The project is anticipated to be baselined around 4th QTR 2018. Project is currently forecast for completion near the end of 2024.

Activity Name	Start	Finish								
,			18	2019 IOIOIOI	2020 Olololo	2021 Nolololo	2022 Olololo	2023	2024	
Downtown Redmond Link Extension - Milestones & Interfaces	15-Dec-16 A	15-Nov-18	F							
Downtown Redmond Link Extension - Preliminary Engineering	03-Jan-17 A	31-Dec-19	Н		†					
Downtown Redmond Link Extension - Preliminary Engineering & Bridging Documents	03-Jan-17 A	31-Dec-19	-		ŧ					
Task 7: Preliminary Engineering	03-Jan-17 A	30-Jul-18	₹.							
Task 10: Final Design Transition and Procurement Support	30-Jun-17 A	31-Dec-19	-		†					
Downtown Redmond Link Extension - Right of Way	18-Jul-18	07-Jan-21				1				
Downtown Redmond Link Extension - Permits & Third Party Agreements	19-Jul-18	05-Jun-20	_		-					
Downtown Redmond Link Extension - Construction	05-Oct-17 A	06-Jan-24	Н						•	
Downtown Redmond Link Extension - DBPM Procurement	05-Oct-17 A	11-Jun-18	r							
Downtown Redmond Link Extension - Design-Build Procurement	11-Jun-18	17-Sep-19	H	-						
Downtown Redmond Link Extension - Design-Build Contract	17-Sep-19	08-Jan-24	ļ	₹					7	
Downtown Redmond Link Extension - Project Closeout	06-Jan-24	30-Dec-24						· '		
Downtown Redmond Link Extension - Rail Activation/Close out	06-Jan-24	30-Dec-24						'		
System Integration Testing	06-Jan-24	04-Apr-24								
Pre-Revenue Operations	05-Apr-24	03-Jul-24	ļ							
Project Float	04-Jul-24	30-Dec-24								
Revenue Service		30-Dec-24							<u> </u>	

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Link Light Rail Downtown Redmond Link Extension

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				
67	43	0	0	1514	0				
			•						

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

- Board Motion R2018-14 authorized 30 additional parcels.
- Total Acquisitions was increased by two parcels needed for the project.

Community Outreach

- Multiple meetings with potentially impacted property owners to provide updated project information and real estate process information and timing.
- Door to door business outreach in downtown Redmond to provide an update on the project and start building our database.

Sound Transit Board Actions

Board Action	Description	Date
R2018-14	Authorizes the CEO 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 Downtown Redmond Link Extension.	5/24/2018

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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 Bal-

lard's Market Street area.

Alignment The West Seattle extension route is as-

sumed 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 Seg-

ment. Nine stations planned for the Ballard

segment.

Phase Planning

Budget \$286M through completion of Preliminary

Engineering

Schedule Revenue Service: 2030 (West Seattle),

2035 (Ballard)



Map of Project Alignment

Key Project Activities

- Conducted neighborhood forums in the Downtown Seattle, West Seattle, SODO-Stadiums and Ballard-Interbay neighborhoods to engage communities in the planning process and to solicit feedback on the Level 1 alternatives.
- Held public Elected Leadership Group (ELG) meeting on May 17th. The ELG reviewed the recommendations made by the Stakeholder Advisory Group (SAG), and recommended the project alternatives to be carried forward to level 2 for further study to staff and Sound Transit Board.
- Reported the Level 1 Alternatives Evaluation Screening results to Sound Transit Board on May 24th.
- Continued working with project development services consultant. Developed reports and presentation materials for alignment alternatives for Level 1 Screening. Started establishing framework and methodology for Level 2 alternatives evaluation and screening.
- Continued work on various engineering feasibility studies, station planning, operational analysis and corridor mapping.
- Continued to coordinate project development activities with other agencies, including City of Seattle, King County Metro, Port of Seattle, WSDOT and key local, state and federal agencies.
- Met with regulatory agencies including US Army Corps, US Coast Guard and Muckleshoot Tribe regarding alternatives development process.

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Link Light Rail West Seattle and Ballard Link Extensions

Project Cost Summary

The West Seattle and Ballard Link Extensions are voter-approved projects under the ST3 Plan. The Current 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. Year-to-date, the project has incurred \$7M.

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	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$63.1	\$3.0	\$2.4	\$63.1	\$0.0
Preliminary Engineering	\$205.4	\$24.4	\$7.2	\$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	\$0.0	\$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	\$27.6	\$9.6	\$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	\$27.5	\$9.5	\$263.4	\$0.0
90 Unallocated Contingency	\$17.5	\$0.0	\$0.0	\$17.5	\$0.0
Total (10 - 90)	\$285.9	\$27.6	\$9.6	\$285.9	\$0.0

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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:

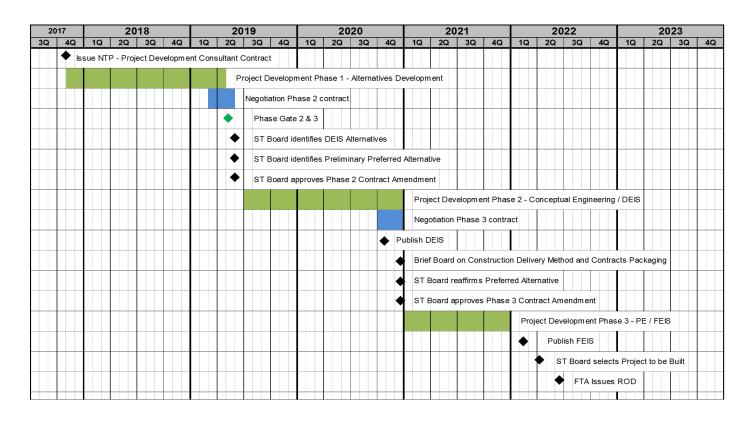
- Reaching stakeholder consensus on a preferred alternative;
- Complexity of alignments in constrained environment with challenging topography and waterway crossings;
- Complexity associated with tunneling through a mature urban environment;
- Potential construction effects in a constrained environment;
- 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.



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Link Light Rail West Seattle and Ballard Link Extensions

Community Outreach

- Conducted neighborhood forums in the Downtown Seattle, West Seattle, SODO-Stadiums and Ballard-Interbay neighborhoods to engage communities in the planning process and to solicit feedback on the Level 1 alternatives.
- Held public Elected Leadership Group (ELG) meeting on May 17th. The ELG reviewed the recommendations made by the Stakeholder Advisory Group (SAG), and recommended the project alternatives to be carried forward to level 2 for further study to staff and Sound Transit Board.
- Started planning for outreach opportunities during the summer fairs and festivals around Seattle area.
- Started planning for upcoming neighborhood forums, SAG and ELG meetings for Level 2 evaluation and screening activities.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

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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 configu-

> ration 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 Gar-

age/Plaza was delivered under a Design Build

contract.

Stations Angle Lake Station is located at South 200th

Systems Signals, track electrification, and SCADA

communications

Budget \$383.2 Million

Schedule Revenue Service began on September 24,

2016

MAP KEY SeaTac/Airport Elevated Station ☐ Station International Airport (99) Angle Lake Station

Map of S. 200th Link Extension

Key Project Activities

- Design Build (DB) Guideway and Station (S440): Finalize remaining closeout activities and issue Final Acceptance. ST and Contractor in mediation for claim.
- DB Parking Garage (S445): Contractor to complete façade repairs and working toward achieving Final Acceptance on the contract.
- Roadway Improvements (S447): Closeout complete.
- Military Road/South 200th Intersection (S446): WSDOT final activity, 1yr plant establishment by Oct 2018.
- Project Wide: Conclude project activities by end of 4th QTR 2018; City of SeaTac to complete ADA Ramps.

Closely Monitored Issues

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

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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	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.1	\$17.1	\$16.2	\$16.2	\$16.5	\$0.6
Preliminary Engineering	\$5.9	\$5.7	\$5.7	\$5.7	\$5.7	\$0.0
Final Design	\$20.0	\$9.5	\$8.7	\$8.7	\$8.7	\$0.8
Construction Services	\$15.1	\$17.3	\$17.1	\$17.1	\$17.1	\$0.2
3rd Party Agreements	\$6.9	\$7.1	\$5.7	\$3.8	\$3.3	\$3.8
Construction	\$275.7	\$282.9	\$239.5	\$238.5	\$243.1	\$39.8
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$43.5	\$43.5	\$38.0	\$38.0	\$38.1	\$5.5
Capital Total	\$383.2	\$383.2	\$331.1	\$328.1	\$332.6	\$50.6
Finance Cost	\$0.0	\$0.0				
Project Total	\$383.2	\$383.2	\$331.1	\$328.1	\$332.6	\$50.6

The overall project Estimated Final Cost (EFC) for this period reflects \$332.6M, a savings projection of \$50.6M. This period incurred cost was increased by approximately \$0.01M and consist mostly of staff time in Administration 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	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$144.8	\$133.0	\$100.3	\$100.4	\$109.5	\$23.5
20 Stations	\$46.4	\$51.7	\$42.0	\$42.0	\$42.3	\$9.5
30 Support Facilities: Yards, Shops	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$34.6	\$55.3	\$55.6	\$54.5	\$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	\$218.3	\$217.3	\$227.1	\$32.8
60 Row, Land, Existing Improvements	\$43.5	\$43.5	\$38.0	\$38.0	\$38.1	\$5.5
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$64.1	\$72.5	\$74.7	\$72.7	\$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	\$331.1	\$328.1	\$332.6	\$50.6
100 Finance Cost	\$0.0	\$0.0				
Project Total	\$383.2	\$383.2	\$331.1	\$328.1	\$332.6	\$50.6

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Cost Contingency Management

S. 200th Link Extension was baselined with a total contingency amount of \$75.6M, the Total Contingency has decreased by \$23.3M to \$52.2M. During this reporting period, there was no change to project contingency. Detailed information is provided in the table below.

Design Allowance (DA): N/A

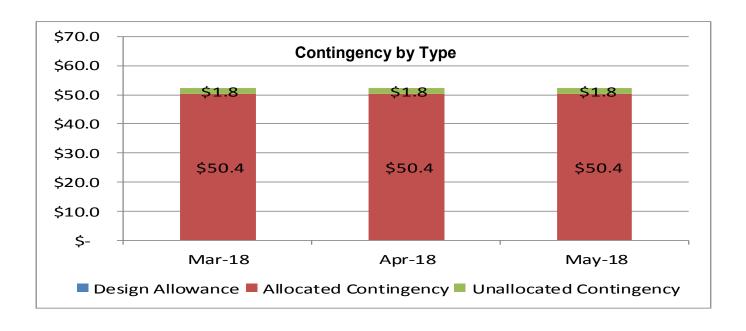
Allocated Contingency (AC): This period the AC balance is \$50.4M, reflecting no change.

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

Contingency Status

	Base	eline	Current		
Contingency Type	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$26.7	7.0%	\$ -	0.0%	
Allocated Contingency	\$29.8	8.0%	\$50.4	1107.4%	
Unallocated Contingency	\$19.0	5.0%	\$ 1.8	39.6%	
Total	\$75.6	20.0%	\$52.2	1147.0%	

Table figures are shown in millions.



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Link Light Rail S. 200th Link Extension

Contract S440—Design -Build (Guideway and Station)

Close-out Current Progress

Contractor finalize closeout items.

- Finalized last change order. ST and Contractor discussing SCU claim 003.
- ST approved CADD As-builts.

Next Period's Activities

- Complete closeout activities
- Execute last change order and resolve claim.
- Issue Final Acceptance to Contractor.

Closely Monitored Issues

 Claim for Station Control Unit under mediation with ST and Contractor.

Contract S445—Design -Build Parking Garage

Close-out Current Progress

Substantial Completion issued on December 21, 2016.

• No more updates.

Cost Summary

Present Financial Status	Amount					
S440 Contractor—PCL Civil Contractors, Inc						
Original Contract Value	\$169,000,000					
Change Order Value	\$6,968,767					
Current Contract Value	\$175,968,767					
Total Actual Cost (Incurred to Date)	\$175,924,620					
Financial Percent Complete	99.9%					
Physical Percent Complete	100%					
Authorized Contingency	\$13,520,000					
Contingency Drawdown	\$6,968,767					
Contingency Index	1.0					

Cost Summary

Present Financial Status	Amount					
S445 Contractor—Harbor Pacific/Graham.						
Original Contract Value	\$29,978,000					
Change Order Value	\$2,607,828					
Current Contract Value	\$32,585,828					
Total Actual Cost (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					

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Link Light Rail Federal Way Link Extension



Project Summary

Scope

Limits The Federal Way Link Extension adds ap-

proximately 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 communica-

tions (SCADA)

Phase Preliminary Engineering/Final Design

Budget \$412.6 Million through Final Design

Schedule Revenue Service: December 2024



Map of Federal Way Link Extension.

Key Project Activities

- Held baseline Risk Assessment (RA) workshop with internal ST; next month FTA/PMOC will participate in RA workshop. Both workshops are necessary as the team prepares for baselining and Entry to Engineering (EIE) in 3Q 2018.
- Continue preparations for EIE and Full Funding Grant Agreement applications. Readiness review with PMOC is underway.
- CM team responded to 16 RFIs in total for RFQ solicitation; RFIs are complete.
- FTA concurrence request is under development to perform advance demolition work for ST owned nuisance properties; demolition solicitation package is being prepared.
- Continue development of proposed WSDOT Construction Agreement. Scope requirements and cost are underway.
- Air Space Lease (ASL) / Temporary Construction Air Space Lease Letter of Concurrence (TCAL LOC) was sent to Government Relations Director and will be presented to WSDOT within couple weeks.
- Project team in coordination with WSDOT conducted an ASL/TCAL page turn in Olympia for FHWA.
- Continued working with cities to refine/finalize Development and Transit way agreements.
- Staff continuing to clarify the permitting requirements of the Authority Having Jurisdiction (AHJ) and the activities required of the DB Contractor.
- Continued ROW acquisition and relocation activities; relocation volume is concerning due to limited housing availability.

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Project Cost Summary

In March 2017, the Sound Transit Board authorized the Federal Way Link Extension Project to advance through Gate 4 (Final Design), increasing the authorized project allocation from \$48.8M to \$412.6M. Board approval for Baselining the project (new Gate 4) to release the entire project budget will be sought in 3rd QTR 2018.

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

This period approximately \$3.4M was incurred, of which \$2M was for Right of Way property acquisitions and relocations, \$0.2M was Construction Services, \$0.5M for staff (Admin), \$0.4M for PE services, and \$0.3M for third party and other FD 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	\$14.9	\$11.2	\$11.2	\$14.9	\$0.0
Preliminary Engineering	\$43.4	\$43.1	\$41.4	\$43.4	\$0.0
Final Design	\$2.4	\$0.9	\$0.6	\$2.4	\$0.0
Construction Services	\$45.7	\$4.6	\$0.8	\$45.7	\$0.0
3rd Party Agreements	\$18.6	\$3.7	\$2.2	\$18.6	\$0.0
Construction	\$13.5	\$0.0	\$0.0	\$13.5	\$0.0
ROW	\$274.1	\$33.7	\$14.0	\$274.1	\$0.0
Total	\$412.6	\$97.2	\$70.1	\$412.6	\$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
20 Stations	\$0.0	\$0	\$0	\$0.0	\$0.0
30 Support Facilities	\$0.0	\$0	\$0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$9.3	\$0.0	\$0.0	\$9.3	\$0.0
50 Systems	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Subtotal (10 - 50)	\$9.3	\$0.0	\$0.0	\$9.3	\$0.0
60 Row, Land	\$274.1	\$33.7	\$14.0	\$274.1	\$0.0
80 Professional Services	\$121.9	\$63.5	\$56.2	\$121.9	\$0.0
90 Unallocated Contingency	\$7.3	\$0.0	\$0.0	\$7.3	\$0.0
Total (10 - 90)	\$412.6	\$97.2	\$70.1	\$412.6	\$0.0

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Link Light Rail Federal Way Link Extension



Risk Management

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

The most recent Quarterly Risk Register review update was held in May 2018, plus an ST internal Risk Assessment workshop for baselining was held. Below are the top project wide risks. In addition, next month a Risk Assessment Workshop will be held with FTA/PMOC and preliminary results from May will be presented to them.

- Availability of federal funding remains uncertain and may impact schedule and funding resources.
- Volatility in construction market and unanticipated jurisdictional stakeholder requirements may drive project cost higher than PE cost estimate.
- Property acquisition and relocations completed in time for construction.
- Volume of residential relocations continues to be a concern due to limited housing availability.

Project Schedule

The project schedule is presented below. Record of Decision (ROD) was received in March 2017. The Design Build Project Management team received NTP in March 2018. The RFQ for potential Design-Build contractors was issued last period. SOQ's are expected in June from potential Design-Build contractors. Real Estate acquisitions continue and additional detail has been added to the master schedule to monitor any impacts to the project. Project Baseline and Final Entry to Engineering submittal is expected in 3rd QTR 2018 to allow time for completion of independent cost estimate and risk assessment.

vity Name	Remaining	Start	Finish		2010 2010 2000 2001 2000 2000					
	Duration			2018	2019	2020	2021	2022	2023	2024
ound Transit	2406d	01-Jul-16 A	31-Dec-24	lalala		وإفاقاقا	alalala	alalala		alala
Sound Transit 2		01-Jul-16 A	31-Dec-24							
South Corridor		01-Jul-16 A	31-Dec-24	-						
Federal Way - Master Schedule			31-Dec-24	-						_
Federal Way Link Extension - Master Schedule		01-Jul-16 A		_						
Preliminary Engineering		01-Jul-16 A		-		7-000			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CHAPTE.
ROW/Property Acquisition		30-Sep-16 A				-				
Property Acquisition		30-Sep-16 A		_		-				
Utility Easements	459d	27-Apr-17 A	02-Sep-19		_	5 1 1 1				
Third Party Agreements and Permitting	607d	01-Jul-16 A	28-Jan-20		V	7			27	ano.
Federal Way Link - Design-Build Construction Management Consultant - Contract		14-Nov-16 A								
Federal Way Link - Construction Management Consultant - Bid/Solicitation	0d	14-Nov-16 A	02-Mar-18 /	AT .						
Construction Management Consultant - Contract Duration	2406d	02-Mar-18 A	31-Dec-24							
Federal Way Design/Build Contract		11-Mar-17 A								
Federal Way Link Extension - Design/Build Contract - Procurement		11-Mar-17 A								
D/B RFQ Preparation		11-Mar-17 A								
D/B Bid/Solicitation	427d	12-Apr-18 A	02-Aug-19	7						
Design	472d	02-Aug-19	15-Nov-20		100	-				
Milestones	0d	02-Aug-19	02-Aug-19							
Design-Build Contract Notice to Proceed	0d	02-Aug-19			•					
Packages	472d	02-Aug-19	15-Nov-20		-					
Construction	1427d	11-Mar-20	05-Feb-24			-				₹.
Milestones	1202d	24-Mar-20	08-Jul-23			-	-		_	
Civil/Stations	1215d	11-Mar-20	08-Jul-23						_	
Systems	1407d	31-Mar-20	05-Feb-24			-		7		7
Rail Activation	2406d	10-Mar-18 A	31-Dec-24	-						
Systems Integration & Testing	90d	06-Feb-24	05-May-24		1	1 1000	1	1		_
Systems Integration Testing	90d	06-Feb-24	05-May-24	1						
LRV Procurement/Manufacture/Delivery	1980d	01-Apr-18 A	01-Nov-23	-						
Safety and Security Certification	2406d	10-Mar-18 A	31-Dec-24	The same			Landan and		Acres and	0
Pre-Revenue Service	60d	06-May-24	04-Jul-24							-
Pre-Revenue Service	60d	06-May-24	04-Jul-24							
Revenue Service/Project Float	180d	05-Jul-24	31-Dec-24	8						
ST-controlled Float	180d	05-Jul-24	31-Dec-24							
Revenue Service (12/31/2024)	0d		31-Dec-24*				1		-	

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Link Light Rail Federal Way Link Extension

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.

	ACQUISITION	RELOCATION			
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date
257	259	37	14	388	20

- Board Motion R2018-13 authorized 10 additional parcels.
- Total Acquisitions was decreased by two parcels that are no longer needed for the projects

Community Outreach

- Ongoing communication with property owners regarding FWLE route, profile, station areas and acquisition and relocation.
- Met with Federal Way property owners regarding upcoming project activities and impacts to property.
- Hosted a tenant relocation workshop for residents near the proposed Kent/Des Moines (KDM) station on 5/3.
- Q2 e-newsletter finalized and sent to FWLE project list serve; includes new video simulation of the FWLE alignment.

Sound Transit Board Actions

Board Action	Description	Date
R2018-13	Acquire Real Property, 10 parcels, required for the Federal Way Link Extension.	May 24, 2018

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Phase 3 Preliminary Engineering (PE)

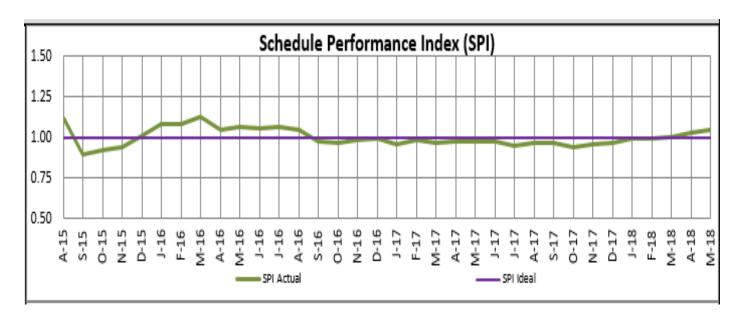
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary 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 work on Development Agreements and Transit Way Agreement revisions with the cities.
- RFQ for DB solicitation: RFI closed with a total of 16 RFIs responded by the CM team.
- Continued development of proposed construction agreement with WSDOT to construct improvements for WSDOT, including SR 99 Bridge and retaining walls.
- Submitted final Geotechnical data and Preliminary Geotechnical interpretative reports.
- Continued re– evaluation of NEPA/SEPA related to traffic mitigation.
- Submitted a Basis of Estimate Report and Reconciled Cost Estimate.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) is 1.05 through May 2018, indicating the overall amount of work accomplished is as planned. The consultant is now fully engaged on the new scope incorporated, to assist in RFP process of DB contract and in ROW acquisition support.

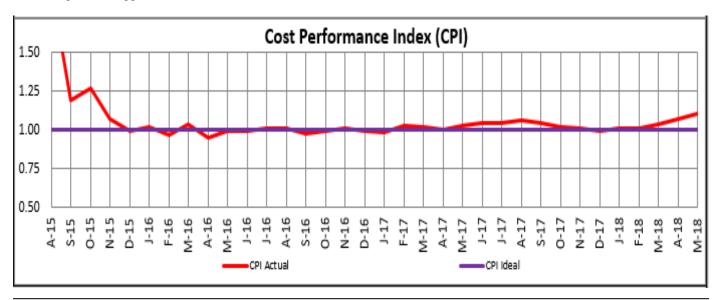


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Cost Performance Index

Phase 3 expenditures through May 2018 totaled \$32.6M, approximately 88% of the amended total contract. The Phase 3 percent complete is reported at 95%, with an earned value of \$35.3M. The cumulative Cost Performance Index (CPI) is 1.08 showing costs are on track with work accomplished. The Consultant is engaged in assistance in RFP process of DB contract and in ROW acquisition support.



Cost Summary

Contract	Cumulative To-date
Amount Invoiced	\$32.6M
% Spent	88%
Earned Value	\$35.3M
% Complete	95%
SPI	1.05
СРІ	1.08

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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 Dis-

trict, and St. Joseph.

Systems Expansion of the Operations and Mainte-

nance 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

Final Design

- Design consultant continued bid support activities in coordination with Construction Management Consultant.
- Project staff continued design conformance verification activities.

Pre-Construction Services:

• ST CM staff and CMC consultant coordinated responses from design consultant and internal ST departments to bidder Requests for Information. Prepared draft addenda and clarifications for issuance by ST Procurement staff.

Right-of-Way

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

Vehicles

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

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Project Cost Summary

In September 2017, Sound Transit Board adopted the 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.

Bids were received for the construction contract (T100) on May 23, 2018. The lowest apparent bid was 15% over the engineer's estimate. Project staff have requested a meeting with the lowest apparent bidder to assist in identification of cost drivers. Award of the construction contract will require budget amendments to address phase level budget transfers.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.9	\$16.9	\$6.6	\$6.5	\$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	\$9.1	\$10.8	\$0.0
Construction Services	\$9.9	\$9.9	\$8.9	\$0.4	\$9.9	\$0.0
3rd Party Agreements	\$1.5	\$1.5	\$1.3	\$0.8	\$1.5	\$0.0
Construction	\$127.2	\$127.2	\$0.0	\$0.0	\$127.2	\$0.0
Vehicles	\$35.4	\$35.4	\$31.2	\$0.5	\$35.4	\$0.0
ROW	\$3.6	\$3.6	\$2.0	\$1.7	\$3.6	\$0.0
Contingency	\$6.6	\$6.6	\$0.0	\$0.0	\$6.6	\$0.0
Total	\$217.3	\$217.3	\$73.1	\$24.6	\$217.3	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$21.9	\$21.9	\$0.0	\$0.0	\$21.9	\$0.0
20 Stations	\$1.8	\$1.8	\$0.0	\$0.0	\$1.8	\$0.0
30 Support Facilities	\$26.6	\$26.6	\$0.0	\$0.0	\$26.6	\$0.0
40 Sitework & Special Conditions	\$40.0	\$40.0	\$7.2	\$0.0	\$40.0	\$0.0
50 Systems	\$25.0	\$25.0	\$0.0	\$0.0	\$25.0	\$0.0
Construction Subtotal (10 - 50)	\$115.4	\$115.4	\$7.2	\$0.0	\$115.4	\$0.0
60 Row, Land	\$3.6	\$3.6	\$2.0	\$1.7	\$3.6	\$0.0
70 Vehicles (non-revenue)	\$35.4	\$35.4	\$31.2	\$0.5	\$35.4	\$0.0
80 Professional Services	\$56.4	\$56.4	\$32.8	\$22.4	\$56.4	\$0.0
90 Unallocated Contingency	\$6.6	\$6.6	\$0.0	\$0.0	\$6.6	\$0.0
Total (10 - 90)	\$217.3	\$217.3	\$73.1	\$24.6	\$217.3	\$0.0

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Link Light Rail Hilltop Tacoma Link Extension



Risk Management

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

The Baseline Risk Assessment was conducted in May 2017. The following are the top project wide risks:

- Unidentified utility conditions under the proposed alignment or delay in completion of relocations.
- Roadway improvements and modifications along MLK are greater than anticipated requiring additional scope.
- Utility relocation associated with the tunnels on MLK.
- 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 and the Procurement of the Tacoma LRV contract. With the Final design completed, DA was reallocated to AC.

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, AC went up to \$17.4M as a result of lower than anticipated base cost estimates for City of Tacoma construction Work Orders.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC balance remained stable with a net amount of \$15.8M.

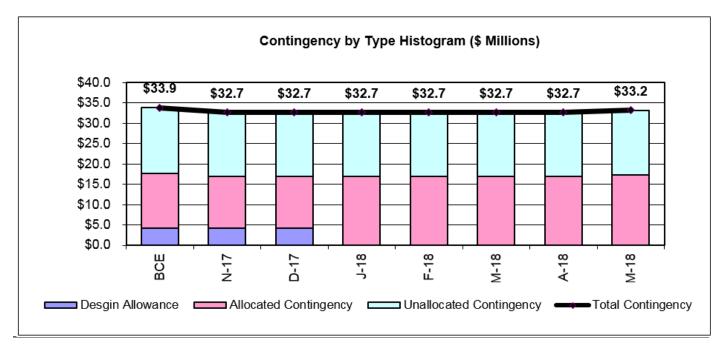
Contingency Status

	Base	eline	Current		
Contingency Type	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$4.2	2.3%	\$0.0	0.0%	
Allocated Contingency	\$13.5	7.2%	\$17.4	9.4%	
Unallocated Contingency	\$16.1	8.6%	\$15.8	8.6%	
Total	\$33.9	\$18.0%	\$33.2	\$18.0%	

Table figures are shown in millions.

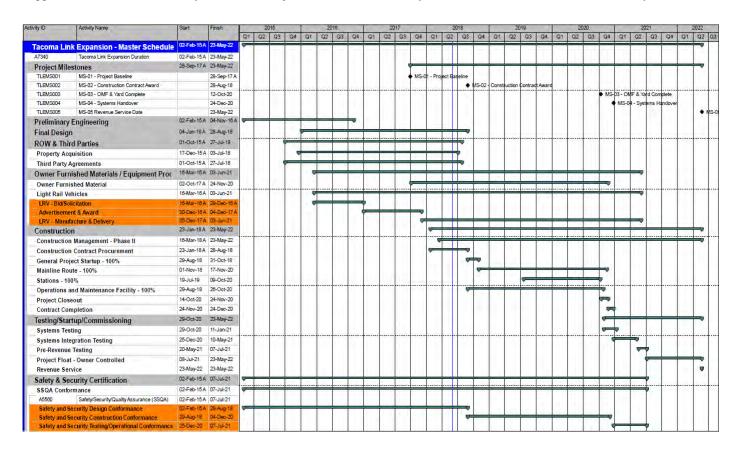
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Project Schedule

The Master Schedule has been updated through the end of May. Work in progress includes, LRV Engineering, and Bid Evaluation for the T100 contract. The Bid for the T100 contract were received on May 23rd, with the team working toward Board Approval still scheduled for July 2018. The Project Float remains 329 days. The Revenue Service date remains May 2022.

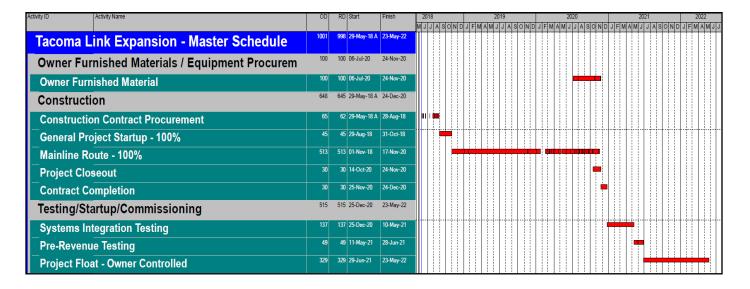


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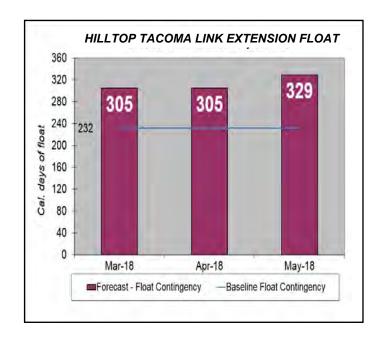
Critical Path Analysis

The critical path for Hilltop Tacoma Link is driven by the bid evaluation process for the T100 construction contract. After award, the path now runs through utility relocations, guideway construction, Systems Integrated Testing, and Pre-Revenue Service. The OMF no longer appears on the critical path, and the team is currently working on the integration of the Maintenance Facility and the Vehicle Delivery. 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.



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Link Light Rail Hilltop Tacoma Link Extension

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		
22	22	22	11	1	1		
_		_	_	<u> </u>	<u> </u>		

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

- Staffed the City of Tacoma Links to Opportunity project office weekly.
- Provided a project update to Sound Transit's Citizen Oversight Panel (COP).
- Provided a project update various stakeholders including: the Hilltop Business District Association's president, the City of Tacoma's mayor, the monthly Hilltop Business District Association and the quarterly Stadium Historical Business District meeting attendees.

Sound Transit Board Actions

Board Action	Description	Date
	None to report this period.	

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Link Light Rail Tacoma Dome Link Extension



Project Summary

Scope

Limits Federal Way Transit Center to South Fed-

eral Way, Fife, East Tacoma, and Tacoma

Dome

Alignment The Tacoma Dome Link Extension ex-

pands 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 \$125.6 Million for Preliminary Engineering

Phase 1—Alternative Development

Schedule Revenue Service: December 2030



Map of Tacoma Dome Link Extension.

Key Project Activities

- Sound Transit Board approved Phase 1—Alternative Development budget in December 2017. Phase 1—Alternatives Development phase began in January 2018. Alternative development activities are on-going as per the schedule.
- Early Scoping period began April 2 and concluded May 3.
- The last of three Station Area Workshops was held May 1st in Fife.
- Coordination meetings held with Puyallup Tribe of Indians staff on May 1 and 3.
- Partnering Agreements for City of Tacoma and City of Federal Way were approved by ST Board on May 24.
- The third Elected Leadership Group was held May 18 and included a presentation of evaluation criteria and an optional corridor tour.
- The second Stakeholder Group was held May 22 and included a presentation of evaluation criteria.
- Began negotiations of Task Order with the City of Fife.

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Project Cost Summary

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

Project cost and monthly expenditures are on track with the planned monthly budget and are expected to complete 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	\$1.6	\$1.2	\$26.8	\$0.0
Preliminary Engineering	\$87.1	\$10.3	\$1.4	\$87.1	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$5.8	\$0.0	\$0.0	\$5.8	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$0.0	\$0.0	\$6.0	\$0.0
Total	\$125.7	\$11.9	\$2.6	\$125.7	\$0.0

Cost Summary by SCC

SCC Element	Authorized Project Allocation	Commit- ment 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	\$11.9	\$2.6	\$110.9	\$0.0
90 Unallocated Contingency	\$9.8	\$0.0	\$0.0	\$9.8	\$0.0
Total (10 - 90)	\$125.7	\$11.9	\$2.6	\$125.7	\$0.0

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Risk Management

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

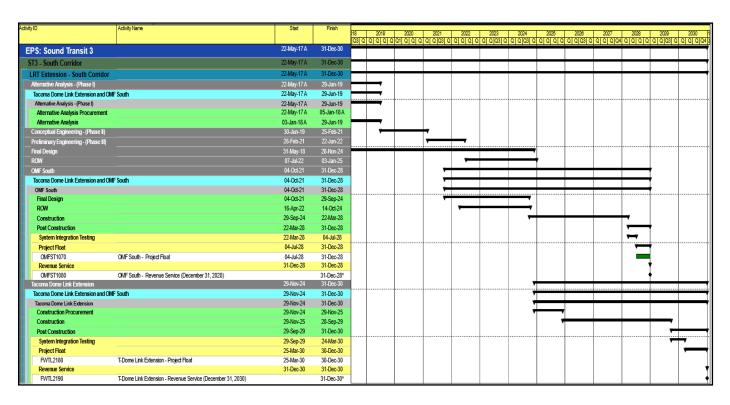
The first risk review workshop is scheduled in the 3rd QTR 2018. The following are the top project wide risks:

- 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.
- Potential third party scope requests.

Project Schedule

Phase I Alternative Analysis —The HDR detailed schedule as of May 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.

The critical path of this project runs through Phase 1 Alternatives Development level 1 and level 2 screening to preparing Capital Cost Estimating required for briefing the Sound Transit Board to help identify the Preferred Alternative.



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Community Outreach

- Hosted Fife Station Area Workshop.
- Held Coordination meeting with the Puyallup Tribe of Indians.
- Held TDLE Interagency Group Meeting.
- Hosted Monthly Dome District Community Meeting.
- Held TDLE Elected Leadership Group Meeting.
- Held TDLE Stakeholder Group Meeting.
- Performed Fife/Milton Kiwanis Briefing.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

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Link Light Rail

Link Operations & Maintenance Facility: East



Project Summary

Scope The Link Operations and Maintenance Fa-

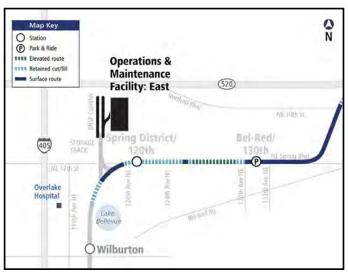
cility: East (OMF East) project, located in the City of Bellevue, includes a 160,000 sq. ft. operations and maintenance facility that will maintain, store and deploy and expanded light rail fleet, including seven LRV service bays, a LRV wash facility and stor-

age for up to 96 LRVs.

Phase Proceed to Construction

Budget \$449.2 Million (Baselined July 2016)

Schedule Project Completion: December 2020



Map of OMF East Site

Key Project Activities

- Continued 60%, 100% and IFC review of various design packages.
- Continued site preparation, including but not limited to clearing, grubing, surface demolition; removal of water lines and dewatering.
- Received grading permit from City of Bellevue.
- Commenced excavation for and placement of 66" sewer pipe in King County sewer line.
- Continued fabrication and placement of pre-casting of detention vault panels for vaults A & B.
- Issued locations for Yard Wi-Fi coverage to DB contractor and RFP for device installation.
- Continued working with the City of Bellevue on Property Exchange Agreement with plans to brief the City Council in Summer 2018.
- Commenced grading and pre-loading of yard area.
- The East Rail Corridor (ERC) temporary trail is now anticipated to be open for public use in June.
- Environmental: Continuing environmental compliance weekly inspections. Monitored contractor's installation and operations of the truck wheel system wash. Presence of beaver on adjacent property—a concern in completing drainage conveyance by end of July.

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.
- City issuance of building permit.

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Link Operations & Maintenance Facility: East

Project Cost Summary

The Baseline Budget (July 2016) for the OMF East is \$449.2M. The OMF East cost is summarized into two cost tables. The first table is in accordance with Sound Transit's Work Breakdown Structure (WBS) displaying the cost summary by phase. The second table summarizes project cost by SCC, in accordance to the FTA Standard Cost Categories (SCC) format. Both tables show figures in millions.

The Estimated Final Costs (EFC), continues to be projected at approximately \$449.2M. This period's expenditure of about \$4.8M inches the total project cost incurred from \$147.5M to \$152.2M. The primary cost driver during this period on the OMFE project comes from the construction phase at \$4.5M or roughly 94% of the total monthly expenditures. The next cost drivers this period are the Administrative Phase and Right of Way Phase expenditure at about \$0.1M and \$0.2M respectively.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$17.6	\$17.6	\$4.2	\$4.2	\$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	\$2.4	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.3	\$0.1	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$222.4	\$36.1	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$101.2	\$100.7	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$354.9	\$152.2	\$449.2	\$0.0

Cost Summary by SCC

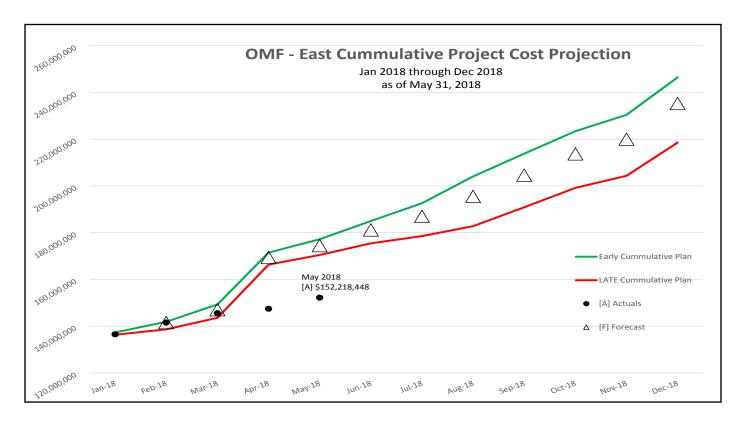
SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$2.6	\$4.4	\$4.0	\$0.3	\$4.0	\$0.3
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities: Yard, Shop	\$140.1	\$136.2	\$123.9	\$10.8	\$145.5	-\$9.3
40 Sitework & Special Conditions	\$43.6	\$47.3	\$39.6	\$4.9	\$41.5	\$5.8
50 Systems	\$43.0	\$41.6	\$38.5	\$3.3	\$38.5	\$3.2
Construction Subtotal (10 - 50)	\$229.3	\$229.5	\$206.0	\$19.3	\$229.5	\$0.0
60 ROW, Land, Improvements	\$134.5	\$134.5	\$101.2	\$100.7	\$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	\$47.7	\$32.2	\$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	\$354.9	\$152.2	\$449.2	\$0.0

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Project Cash Flow Projection

The OMF East cost projection is trending late this period but anticipates to pick up through this summer. Total project cost incurred to date reached \$152.2M with ROW phase cost being the largest driver at 70% and Construction Phase at about 20%. The projected uptick to occur in this reporting period did not occur as the Design Builder missed Systems and Track design submittal and some associated long lead procurement that was tied to the submittal. This resulted in a substantial shortfall between the plan and the actual expenditure. However, the current cost projection remains at about \$230M by year's end reflecting a continued active design and construction activities through the summer and fall periods.



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 is currently working towards Milestone 2 completing ROW Acquisition and Mass Grading. The OMF East quarterly risk register review meeting for 1st QTR 2018. The current top actively managed risk areas continues to be the same as previous period and are listed below:

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

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Link Operations & Maintenance Facility: East

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. Approximately \$21.6M of Design Allowance was reallocated committed into in the design build contract and the remaining \$3.7M was reallocated into the Design Build Contract. The Project's starting contingency balance as of the Notice to Proceed for Construction was \$71.6M. For this period, there was some minor change order in the design build contract that required a contingency drawdown. The current contingency balance remains at \$70.1M.

Design Allowance (DA): N/A.

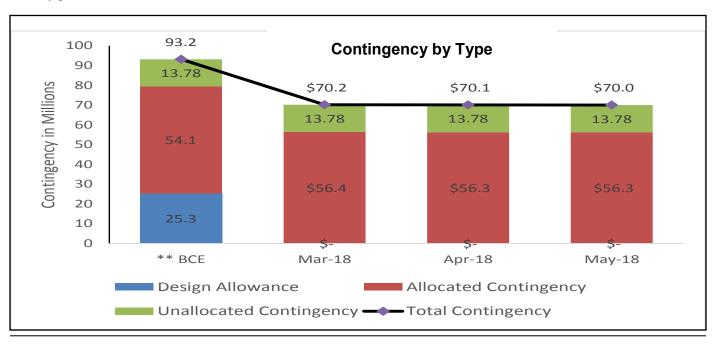
Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. Allocated contingency balance at the end of this period remains essentially unchanged from the previous period at about \$56.3M

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

	Base	eline	Current		
Contingency Type	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$25.3	5.6%	\$ -	0.0%	
Allocated Contingency	\$54.1	12.0%	\$56.3	19.0%	
Unallocated Contingency	\$13.8	3.1%	\$13.8	4.6%	
Total	\$93.2	20.7%	\$70.1	23.6%	

Table figures are shown in millions.

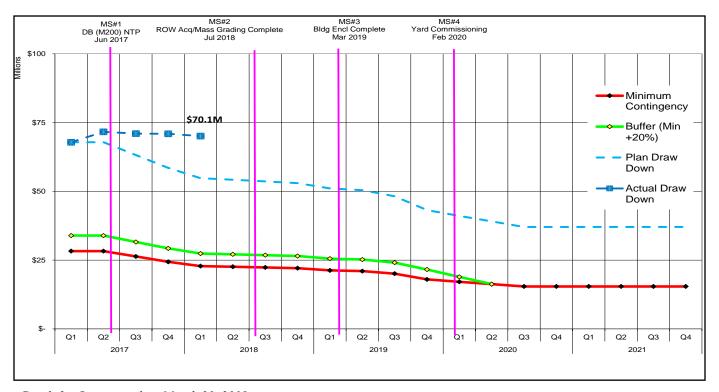


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Contingency Drawdown

At the end of the first quarter 2018, OMF East Project's total contingency drawdown plan is trending positively. Total contingencies balance is at approximate \$70.1M 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 second quarter.



Graph for Quarter ending March 31, 2018

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Link Operations & Maintenance Facility: East

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	Anish	017	2018	2019	2020
			Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	@1 @2 @3 @4 @
M200 Construction	04-Apr-17 A	30-Sep-20	_	:	:	
Preconstruction & Administration	04-Apr-17 A	26-Sep-20		:	:	
Milestones	19-Jun-17 A	26-Sep-20	<u> </u>	:	:	7
Contractual Milestones	19-Jun-17 A	26-Sep-20	-	:	:	
Milestone 1 - Substantial Completion	19-Jun-17 A	26-Sep-20			<u>.</u>	
Design	04-Apr-17 A	28-May-19		:		
Submittals & Procurement	12-Dec-17 A	03-Dec-19	'		•	
Construction	19-Jun-17 A	30-Sep-20	_			
Mobilization & Early Sitework	19-Jun-17 A	03-Jun-20	<u> </u>	:	:	_
Maintenance & Shop Building	01-Aug-18	09-Jun-20			:	_
Maintenance of Way Building	21-Feb-19	19-May-20			•	
An cillary Structures	05-Jun-19	07-May-20			-	_
Trackwork	27-Jul-18	23-Mar-20		_	:	-
Site Surfacing & Finishes	09-Nov-18	26-May-20			!	_
Project Close out	21-Dec-18	30-Sep-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*				+

Critical Path Analysis

The critical path shifted this month due to the embankment fill and preload activities at the north side of the site being completed 12 working days ahead of schedule. The critical path now goes through the main OMF building. Since the preload settlement period is an estimate, it is possible that the schedule savings of this early finish will not be realized and that the yard will become the critical path again later this year.

tivity Name	Start	Finish	017 Q3 Q4	2018 Q1 Q2 Q3 Q4	2019 01 02 03 04	2020
M200 Construction	04-Apr-17 A	30-Sep-20			:	
Preconstruction & Administration	04-Apr-17 A	26-Sep-20	_			
Milestones	19-Jun-17 A	26-Sep-20	_	:	:	
Contractual Milestones		26-Sep-20	-	:	:	
Milestone 1 - Substantial Completion	19-Jun-17 A	26-Sep-20				
Design	04-Apr-17 A	28-May-19	_			
Submittals & Procurement	12-Dec-17 A	03-Dec-19	٠ ا		•	
Construction	19-Jun-17 A	30-Sep-20				•
Mobilization & Early Sitework	19-Jun-17 A	03-Jun-20	_	:	:	
Maintenance & Shop Building	01-Aug-18	09-Jun-20		_	:	
Maintenance of Way Building	21-Feb-19	19-May-20			•	_
An cillary Structures	05-Jun-19	07-May-20				_
Trackwork	27-Jul-18	23-Mar-20		_	: 	
Site Surfacing & Finishes	09-Nov-18	26-May-20			!	
Project Closeout	21-Dec-18	30-Sep-20	l	·	·	•
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*				

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Link Light Rail Link Operations & Maintenance Facility: East



Right-of-Way

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

Community Outreach

- Held Design and Construction Open House scheduled on May 17th.
- Participated in City of Bellevue Open House for BelRed construction projection.
- Coordinate with Bellevue School District and King County Metro on Beaver Dam mitigation.

Sound Transit Board Actions

Board Action	Description	Date
	None to report this period.	



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

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Link Operations & Maintenance Facility: East

Contract M200 - OMF East Design Build

Current Progress

Design: Hensel Phelps (HP) continued working to re-package Design Package (DP) #003 (Trackwork /Systems) 60% for resubmittal. DP #002 (civil) is progressing to 100%. DP #004 100% (buildings) was submitted to ST for review. Entry gates, binding site plan, concrete ballast headers, additional concrete pavement, and Revised Pavement Calculations are current topics under review and discussions.

Construction: HP continued pre-casting and placement of detention vault concrete panels. Continued site works such as grading to sub-grading and pre-loading as well as removal of existing utilities. King County sewer line pipe excavation and installation also commenced with the first stick of sewer pipes installed.

Next Period's Activities

- Continue DP #003 60% Review.
- Complete DP #002 100% Review.
- Continue Storm Detention Vault construction and commenced backfilling certain area of the vault.
- Continue King County sewer line pipe excavation and installation.
- Continue dewatering King County and commenced preparation for sewer by pass line with cut over anticipated in July.

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	\$1,540,313							
Current Contract Value	\$220,452,313							
Total Actual Cost (Incurred to Date)	\$34,061,868							
Financial Percent Complete	15.4%							
Authorized Contingency	\$21,891,200							
Contingency Drawdown	\$1,540,313							
Contingency Index	2.20							



Placing prefabricated concrete panels during installation of the underground infiltration vault.

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Link Light Rail Light Rail Vehicle Fleet Expansion



Project Summary

Scope Design, manufacturing, assembly, inspec-

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

Link Extensions.

Phase Manufacturing

Budget \$740.7 Million (Baseline September 2015,

Amended April 2017)

Schedule Project Completion: 3rd QTR 2024



Graphic simulation of the new light rail vehicles

Key Project Activities

- Final Design Review for communications and auxiliary power, car body and truck to be conducted in June.
- Completed Truck Frame First Article Inspects.
- Car 1A and 1C competed final paint stage. Car 1B in floor installation and Car 1C staged for window installation.
- Car 2 shells waiting for sand blasting and painting

Closely Monitored Issues

- Commercial dispute remains open with Siemens regarding lift design and jacking points on the LRV.
- Design for necessary antennae coverage for the provision of Wi-Fi facilities needed at OMF East & OMF-Forest Street.
- OMF Forest Street yard storage capacity in 2020 may limit Siemens LRV delivery schedule; production progress being monitored closely.
- Flame, smoke, and toxicity standard (NFPA-130) test waiver regarding a Siemens' adhesive product.



Car shell awaiting for sand blasting and painting.



Painted power truck frames.

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Light Rail Vehicle Fleet Expansion

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 May 2018, the project incurred to date costs increased nominally by about \$235K. The incurred cost increased from \$74.6M to \$74.8M. The majority of this period's costs were attributed to design and inspection in the support of document reviews for the final design review (FDR) and monitoring of the production of car shells and truck frames.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$6.4	\$6.4	\$0.9	\$0.8	\$6.4	\$0.0
Construction Services	\$18.0	\$18.0	\$4.8	\$3.2	\$18.0	\$0.0
Vehicles	\$716.3	\$716.3	\$648.2	\$70.9	\$716.3	\$0.0
Total*	\$740.7	\$740.7	\$653.9	\$74.8	\$740.7	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
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	\$653.0	\$74.0	\$702.8	\$0.0
80 Professional Services	\$6.1	\$6.1	\$0.9	\$0.8	\$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	\$653.9	\$74.8	\$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 is currently being updated. 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.

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Contingency Management

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

Design Allowance (DA) 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 \$38.3M. No contingency was drawn this period.

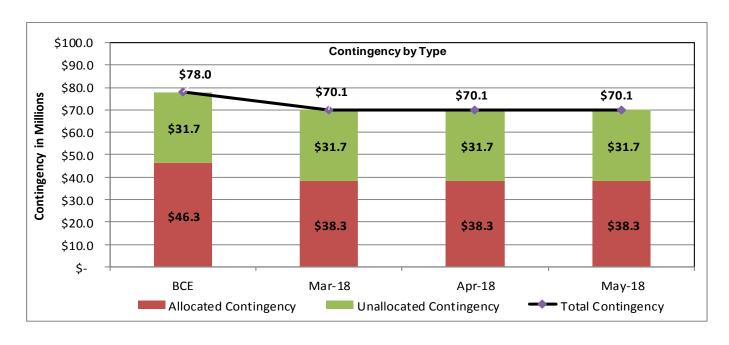
Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The baseline UAC remained unchanged at \$31.7M.

Contingency Status

	Base	eline	Current				
Contingency Type	Amount	% of Total	Amount	% of Work Remaining			
Design Allowance	\$ 00.0	0.0%	\$ 00.0	0.0%			
Allocated Contingency	\$ 46.3	6.4%	\$ 38.3	6.6%			
Unallocated Contingency	\$ 31.7	4.3%	\$ 31.7	0.0%			
Total	\$ 78.0	10.7%	\$ 70.1	12.0%			

Table figures are shown in millions.

Contingency by Type



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Light Rail Vehicle Fleet Expansion

Project Schedule

The LRV Fleet Expansion project schedule is shown below. The progress schedule for May 2018 (see below) was established by using the last monthly schedule submittal and comparing them to the manufacturer weekly tasks and milestones during the weekly progress and coordination meeting. In addition, the manufacturer's monthly reports are reviewed to monitor for potential delays in any of the critically dependent events as identified on the schedule. This period's progress includes completion of final design reviews and completion of first article of inspections for HVAC, Passenger Seats, Pantograph, Roof, Communication Systems and commencing the assembly of bogie frames for the first LRV. The Bicycle Rack Mock-up was reviewed by DECM and other stakeholders.

Activity Name	Start	Firish	2018	2019	2020	2021	2022	2023	2024	2025	2028	2027
			000		0000				0000	0000	0000	100
LRV Procurement Schedule	24-Feb-15 A	28-Aug-24										
LRV Vendor Procurement	24-Feb-15 A	10-Oct-16 A										
LRV Engineering and Manufacture	11-Oct-16 A	11-Oct-16 A										
LRV Design Reviews, Manufacturing, and System Tests	11-Oct-16 A	11-Oct-16 A										
LRV Delivery Schedule	04-Dec-18	28-Aug-24										
LRV #1-122 (122 LRV Base Order)	04-Dec-18	13-Jan-23										
Delivery of 1st LRV (BL 27-Mar-19)		04-Dec-18] [[• : : :		111	111				1111	
Delivery of 40th LRV - Northgate Link Vehicle Deliveries Complete (BL 28-Jun-20)		05-May-20			*				; ; ;			
Delivery of 42hd LRV - Existing OMF at capacity (104 LRVs) (6L27-Jul-20)		28-May-20			*							
Final Acceptance of Vehicles (BL28-Feb-23)		13-Jan-23					1111)		! ! ! }		
Delivery of 122nd LRV - Final ST2 Delivery (BL 28Aug 22)		07-Jul-22					•					
LRV #123 - 152 (30 LRV Options) - Change Order #4	28-Feb-24	28-Aug-24					1:::	; ; ;				
Delivery of 152nd LRV - Final Delivery (BL 28-Feb24)		28-Feb-24							*			
Final Acceptance of Vehicles (βL26-Aug-24)		28-Aug-24										

Critical Path Analysis

As of May 30, 2018 the manufacturer continues trending ahead of their baseline schedule; the delivery of the first LRV is projecting to be completed in late 4th Qtr 2018, current schedule is forecasting that LRV#001 will be approx. 3 months ahead of the schedule target completion date of March 27, 2019. The critical path is completing the Carbody and Truck Final Design Reviews in June 2018 and completing all open FAIs in July 2018 in order for the major systems to be shipped and delivery to SII for complete equipment installation into LRV#001 by September 2018.

The delivery of all the light rail vehicles requirements for Northgate Link operations 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 deliveries of light rail vehicles requirements for East Link.

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Link Capital Program Staffing January – March 2018 (updated quarterly) Recruiting Status

The following positions were filled in 1st QTR 2018 to support the Link Capital Program:

Position	Planned Hire Date*
Design Technology Specialist	2017 Attrition
Manager Systems Testing	2017 Attrition
Sr. Project Control Specialist	2017 Attrition
Deputy Construction Manager – Federal Way Link Extension	2017 Attrition
Construction Manager – East Link Extension	2017 Attrition
Construction Manager – East Link Extension	2017 Attrition
Deputy Construction Manager – W. Seattle to Ballard Link Extension	2017 Attrition
Community Outreach Specialist – BRT and Sounder	2017 Attrition
Leasing Document Coordinator	2017 Attrition
Architect	2017 Attrition
Real Property Coordinator	2017 Attrition
Civil Engineer – Sounder and Operations Support	2017 Attrition
Corridor Design Manager Systems Lynnwood Link Extension	2017 Attrition*
Project Control Specialist	2017 Attrition*
Sr. Scheduling Engineer	March 2017*
Project Manager – Non-corridor projects	March 2017 *
Administrative Specialist – Construction Management	May 2017
Sr. Systems Engineer – Operations Technology	September 2017
Community Outreach Specialist Northgate Link Extension	September 2017
Deputy Director – Federal Way Link Extension	September 2017*
Sr. Project Coordinator – Federal Way Link Extension	September 2017*
Corridor Design Manager	January 2018*
Sr. Project Control Specialist - Sounder	January 2018*
Leasing Document Coordinator	January 2018
High Capacity Development Manager - East Link Extension	January 2018
Real Property Agent	January 2018*
Document Control Supervisor	February 2018*

^{*}Position filled with internal candidate

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As of the end of 1st QTR 2018 recruiting was on-going for the following positions:

Position	Position
Sr. Project Manager - Operations and Maintenance Facility East	St. Systems Engineer - Signals
Executive Project Director	Sr. Mechanical Engineer
Sr. Project Coordinator - East Link Extension	Manager Civil – Systems Integration
Project Director - Bus Rapid Transit	Construction Manager Systems
Corridor Design Manager - Federal Way Link Extension	Sr. Document Control Coordinator
Supervisor Rail Design	Project Control Coordinator
Civil Engineer	Risk Engineer Program Manager
Sr. Civil Engineer - Right-of-Way	Risk Engineer
Sr. Civil Engineer - East Link Extension	Project Control Specialist (2)
Sr. Civil Engineer - Non-corridor projects	Project Control Supervisor
Sr. Design Technology Specialist	Sr. Project Control Specialist
Engineering Standards Program Manager	Sr. Scheduling Engineer
Electrical Engineer	Construction Manager - East Link Extension
Sr. Systems Engineer - Light Rail Vehicles	Principal Construction Manager - W. Seattle – Ballard Link Extension
Sr. Administrative Specialist - Community Outreach	Community Outreach Specialist
Deputy Director - Northgate Link Extension	Sr. Project Manager – Sounder (2)
Project Manager - Federal Way Link Extension	Project Manager - Sounder (2)
Property Management Specialist	Property Management Coordinator
Architect	Sr. Real Property Agent
Real Property Coordinator	

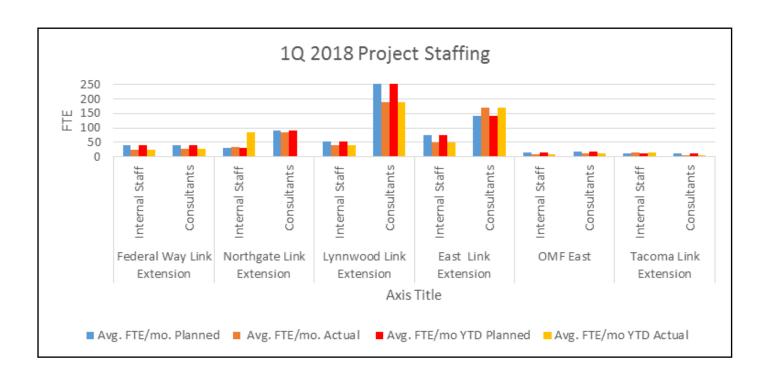
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Staffing Variance relative to Plan

There were 164 internal and 486 consultant full time equivalents (FTE) supporting design and construction of Link light rail extensions (Table 1). Staffing for the Northgate and East Link Extensions was within 10% of plan. Staffing for the Federal Way, Lynnwood, OMF East, and the Tacoma Link Extension was 64%, 74%, 62%, and 73% of plan respectively.

					1Q 2	018 Pro	ject Staffi	ng				
		Consu	ltants		S	ound Tr	ansit Staf	f	Total (AVG. YTD)			
	FTE Variance		FTE	FTE Variance		FTE		Variance				
Project				% of				% of				% of
Project	Planned	Actual	FTE	Plan	Planned	Actual	FTE	Plan	Planned	Actual	FTE	Plan
Federal Way Link Extension	41.0	28.0	-13.0	68%	40.8	24.3	-16.5	59%	81.8	52.2	-29.6	64%
Northgate Link Extension	91.0	83.5	-7.5	92%	30.4	33.3	2.9	110%	121.4	116.7	-4.6	96%
Lynnwood Link Extension	255.0	189.4	-65.6	74%	53.5	38.5	-14.9	72%	308.5	227.9	-80.5	74%
East Link Extension	140.0	168.6	28.6	120%	73.4	47.7	-25.6	65%	213.4	216.3	3.0	101%
OMF East	19.0	12.0	-7.0	63%	13.1	7.9	-5.2	60%	32.1	19.8	-12.2	62%
Tacoma Link Extension	12.0	4.7	-7.3	39%	12.0	12.8	0.8	107%	24.0	17.5	-6.5	73%
Total	558.0	486.1	-71.9	87%	223.0	164.5	-58.5	74%	781.0	650.6	-130.4	83%



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Link Light Rail Acronyms

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

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Link Light Rail Acronyms



PE Preliminary Engineering
PEP Project Execution Plan

PEPD Planning, Environment and Project Develop-

ment

PMOC Project Management Oversight Consultant

PSST Pine Street Stub Tunnel
QA Quality Assurance
QC Quality Control

QTR Quarter

RE Resident Engineer
RFC Request for Change
RFD Request for Deviation
RFI Request for Information
RFP Request for Proposal
RFQ Request for Qualifications

RIR Recordable Injury Rates
RMP Risk Management Plan

ROD Record of Decision

ROW Right of Way
SB Southbound

SCADA Supervisory Central and Data Acquisition

SCC Standard Cost Categories

SCL Seattle City Light

SDEIS Supplemental Draft Environmental Impact

Statement

SEPA State Environmental Policy Act
SIP Street Improvement Permitting
SPI Schedule Performance Index

SR State RouteST 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

UAC Unallocated ContingencyU-Link University Link project

UDS University District Station

USFWS U.S. Fish and Wildlife Service
UW University Of Washington
UST Underground Storage Tank

UWS University of Washington Station

VE Value Engineering

VECP Value Engineering Cost Proposal

WBS Work Breakdown Structure

WDFW Washington Department of Fish and WildlifeWSDOT Washington Department of Transportation

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