

Stride BRT

Program Baselineing

Board of Directors

7/27/23

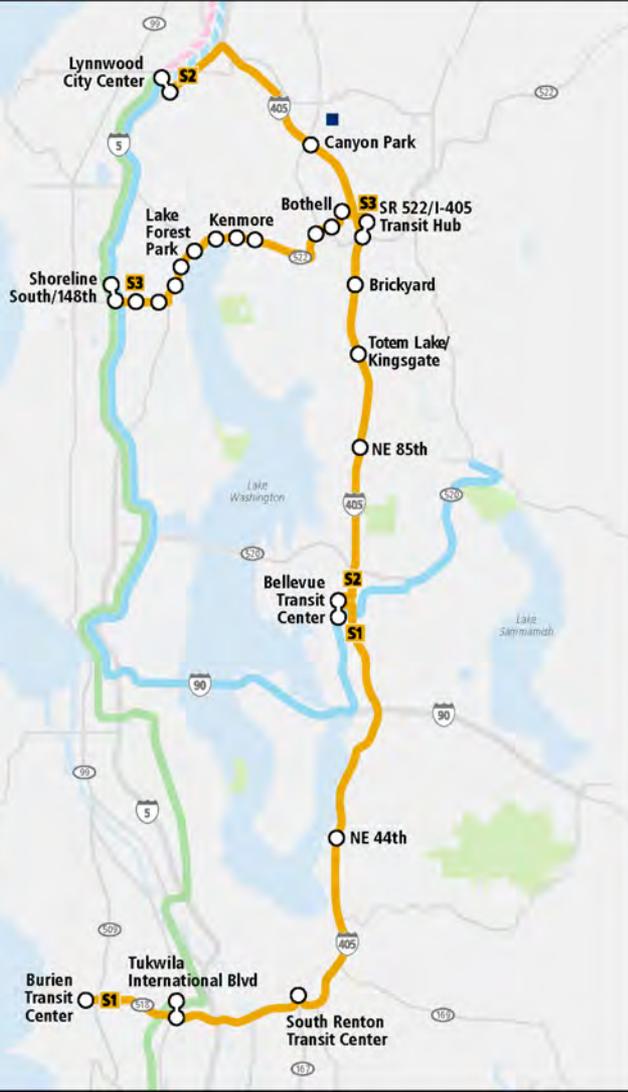


Why we are here

- Program review
- Baseline actions
 - Bus Base North
 - I-405 Bus Rapid Transit
 - SR 522/NE 145th Street Bus Rapid Transit

Scope & Background

Projects to be Built: Q3 2021 – improved from ST3 concept



S1 Line Bellevue–Burien

ST Express (existing)

57 MIN

Project to be built

38-42 MIN

S2 Line Lynnwood–Bellevue

ST Express (existing)

57 MIN

Project to be built

33-38 MIN

S3 Line Shoreline–Bothell

No improvements

54-59 MIN

Project to be built

35-39 MIN

Program progress

Board actions accelerated implementation and reduced risk:

- Early property acquisitions: South Renton Transit Center and Bus Base North sites
- Early construction: Bothell-Kenmore BAT lanes project, SRTC remediation
- Partnerships: WSDOT I-405 projects, Shoreline, Kirkland, UW-Bothell/Cascadia College

Improvements yield immediate benefits:

- Bothell-Kenmore BAT lane completed in service Summer 2022

BRT improvements on state highways earn land bank credits:

- Approximately \$600-700m credit will reduce financial cost of future Sound Transit projects and lease obligations

Baseline Scope

Stride: Bus Base North

- ~120 bus capacity: sized to accommodate Stride and some ST Express fleet
- Battery electric bus charging infrastructure
- Operations hub
- Full maintenance functions
- Located in Bothell, Canyon Park



Stride: I-405 BRT (S1 & S2)

- ~37 miles S1: Burien to Bellevue, S2: Bellevue to Lynnwood
- 11 stations: in-line and transit centers
- Use of Express Toll Lanes for maximum speed and reliability
- Link connections at Tukwila, Bellevue, and Lynnwood
- Higher quality access: transit integration, ped/bike
- Interim park and ride at South Renton Transit Center

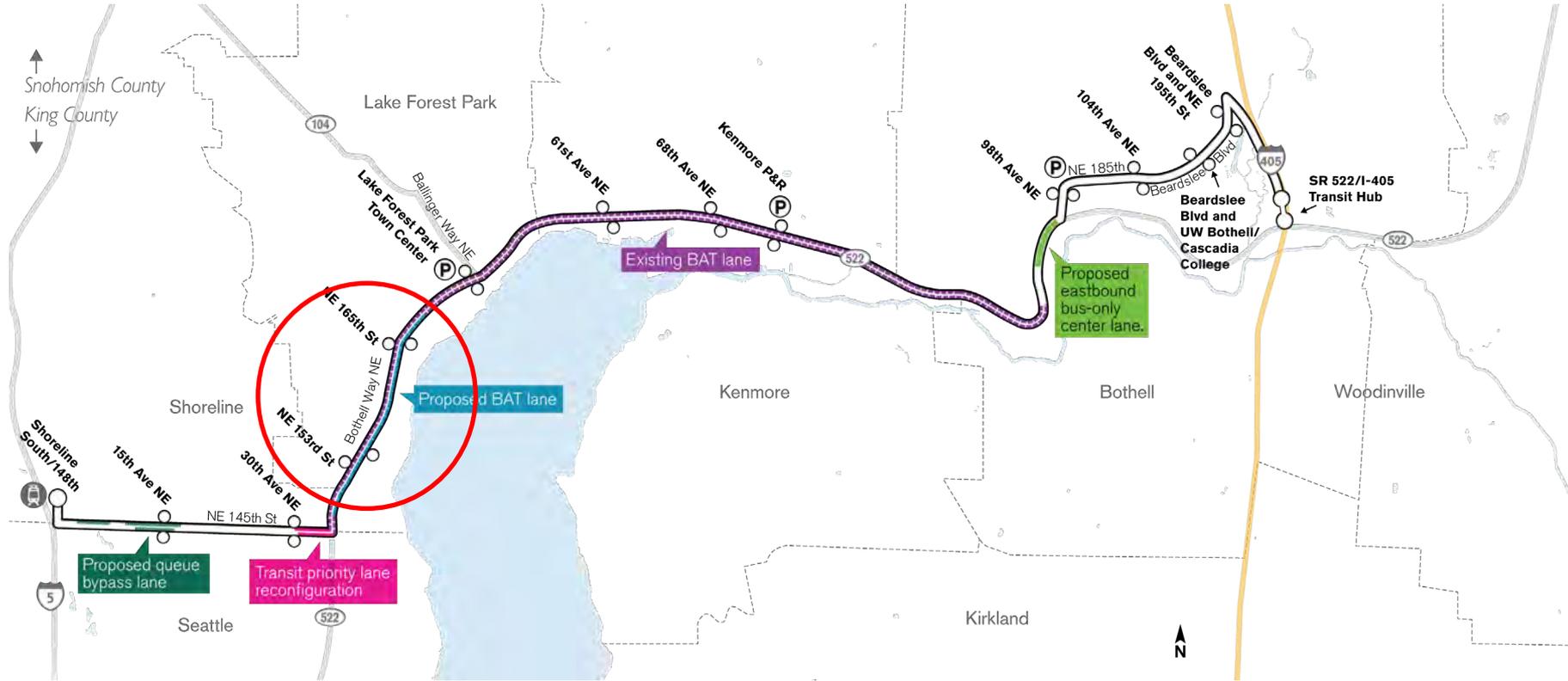


Stride: SR 522/NE 145 St. BRT (S3)

- ~9 miles, length extended to improve connection with S2
- 14 stations
- Business Access and Transit lanes and transit priority treatments
- Link connection at S. Shoreline, S2 connection at I-405/SR 522 interchange
- Higher quality access: transit integration, ped/bike



S3: Completing the BAT lane network



SR 522/NE 145th BRT: Lake Forest Park - January 2023

- City and community concerns:
 - Impacts to tree canopy and mitigation efforts
 - Wall design and landscaping
 - Environmental impacts
 - Safety
- Board direction: continue collaboration with City and WSDOT
 - Continue to engage with City and WSDOT to resolve wall aesthetic treatments
 - Work with City to solicit feedback on aesthetic treatments and other potential design refinements

Design Refinements and Progress Since January 2023

- Tree canopy
 - Reduced tree removals from design refinements, collaboration with community
 - Input to City code update, mitigation plan modeled after Lynnwood Link Extension approach
- Wall design and landscaping
 - Incorporated City preferences: pattern, landscaping, fence
 - Reduced property impacts
 - Facilitating City and WSDOT maintenance agreement
 - Providing input to City code update

SR 522 looking north towards NE 165th St.

Current



Proposed



SR 522 looking south towards NE 165th St.

Current



Proposed



Proposed Baseline Budget

Cost and Finance Plan Evolution Over Time

	ST3 (2014\$ & 2023\$)			2023\$	+	2023\$	+	2023\$	=	2023\$	→	YOE\$***
	ST3 (2014\$)	ST3 (2023\$)	→	Realignment: Update to CE Est*	+	Realignment: 1. STEX Base Transfer 2. Remove Parking	+	Program Changes**	=	Final Financial Plan	→	Final Financial Plan
Bus Base North	\$149	\$239		\$298		+\$63		+\$4		\$365		\$382
I-405 BRT (S1+S2)	\$869	\$1,259		\$1,279		-\$175		\$35		\$1,139		\$1,187
SR 522 BRT (S3)	\$389	\$588		\$671		-\$211		\$12		\$472		\$493
Total	\$1,407	\$2,086		\$2,248		-\$323		\$51		\$1,976		\$2,063

Notes:

*CE = Phase 2/ Conceptual Engineering

**Other changes (2023\$)

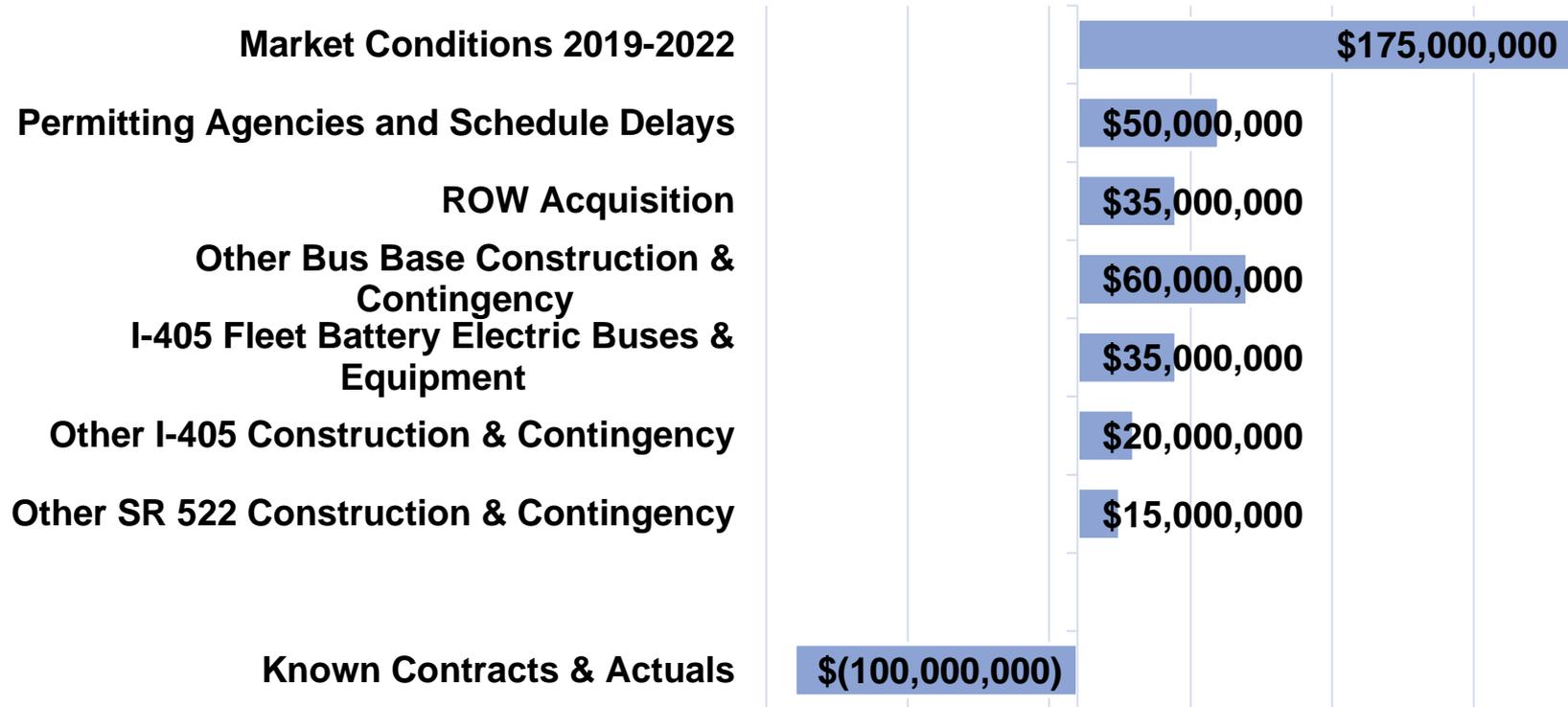
- +\$6M Sustainability cost allocation
- +\$5M transfer from ST2 Bothell Transit Improvements
- +\$40M for parking included in baseline (sunk costs and surface parking at South Renton Transit Center)

***2023\$ cost converted to YOE\$ using baseline cash flow and Spring 2023 indices. Project spending began in 2017 and projected to 2030.

Baseline Cost Estimate

	(Year of Expenditure \$)		
Finance Plan Assumption	\$2,063m		
			
Stride BRT Program Total	\$2,292m	\$2,350	\$2,395
Confidence Level	P60	P80	P90
% over Finance Plan	11%	14%	16%

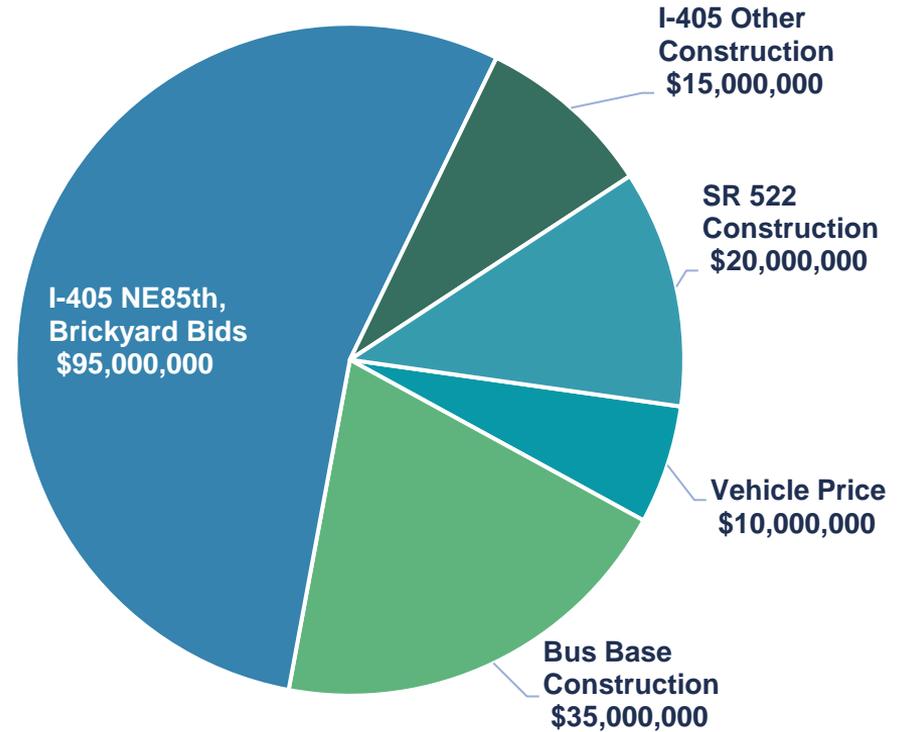
Baseline Cost Drivers



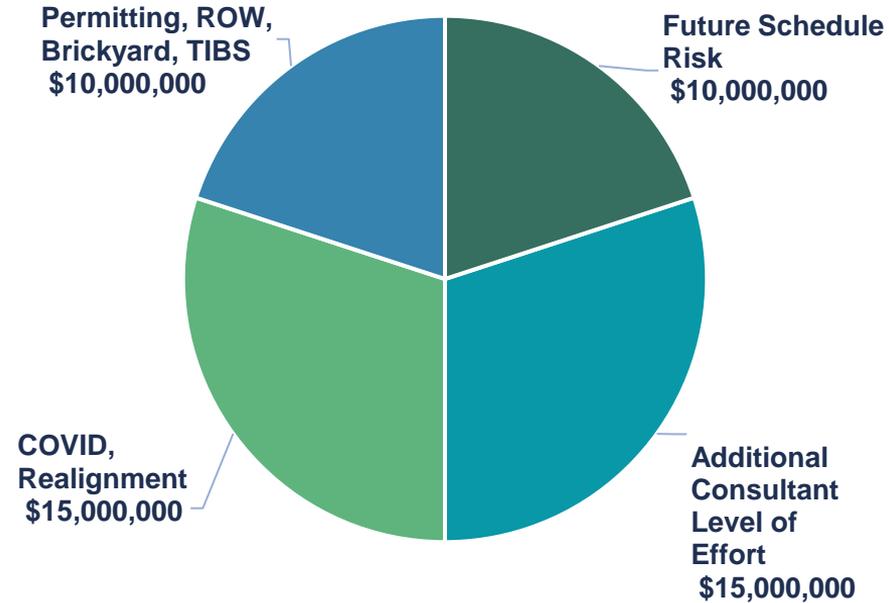
Baseline Cost Drivers: Market Conditions

Between 2019 and 2022 market conditions *increased cost estimates 30%*.

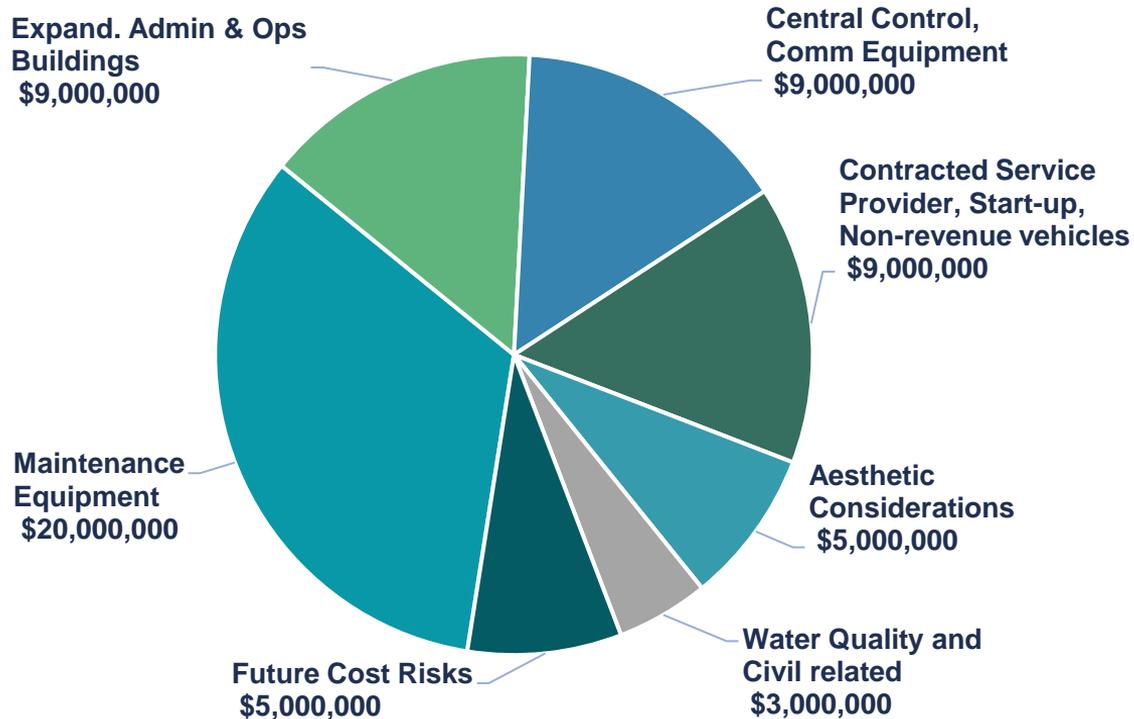
That is *11% faster* than the financial plan estimate of 19%.



Baseline Cost Drivers: Schedule and Resources



Baseline Cost Drivers: Bus Base North Design Refinements and Requirements



Proposed Baseline Budget

	Spring 2023 Financial Plan (YOE\$)	Proposed Baseline (YOE\$)	Variance (YOE\$)	% over Finance Plan
Bus Base North	\$382	\$500	\$118	31%
I-405 BRT (S1+S2)	\$1,187	\$1,269	\$81	7%
SR 522 BRT (S3)	\$493	\$582	\$89	18%
Total	\$2,063	\$2,350	\$288	14%

Baseline Cost - betterments

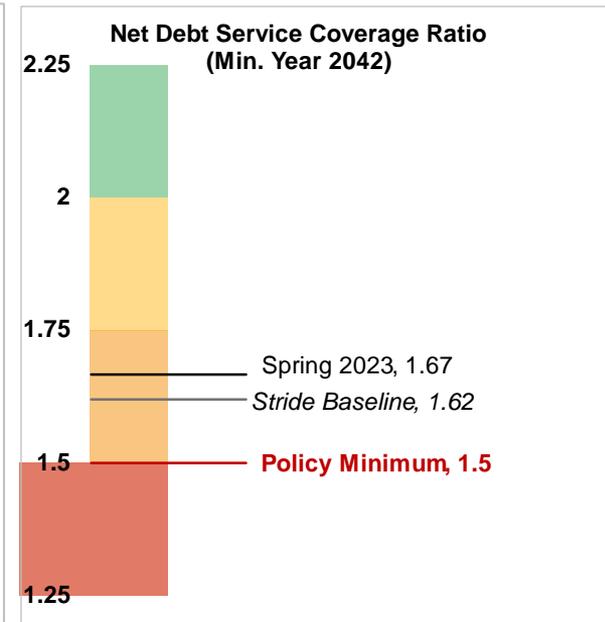
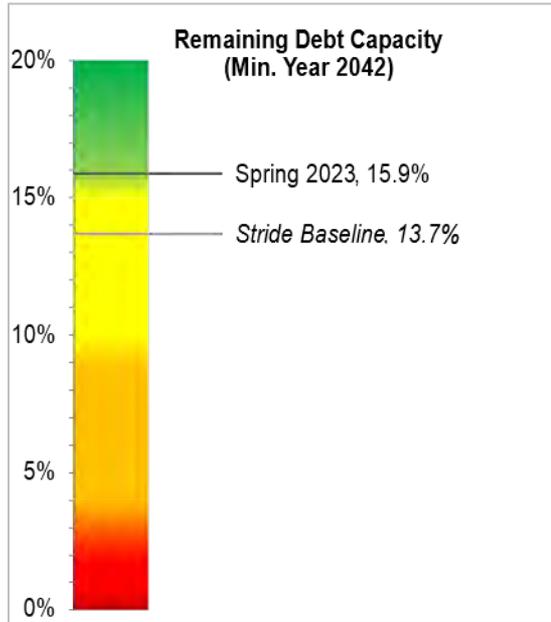
Additional program scope paid for by others:

- South Renton Transit Center – KCM bays, layovers, and support facilities (~\$50m)
- TIBS – private developer pedestrian bridge extension (~\$5-7m)

Financial Analysis

Baseline Budget Impact on Affordability

- \$288M YOY\$ higher than Spring 2023 Financial Plan estimate
- 2.2% decrease in headroom (from 15.9%)
- 0.05 decrease in net debt coverage ratio (from 1.67X)



Proposed Baseline Schedule

Schedule – Background

- 2016 ST3 Plan: +1 year for start of service at completion, rather than mid-construction.
- 2020-21 Board directed pause and Realignment: +1.5 - 2 years
 - Constrained resources, project refinements & environmental, restructured delivery
- 2022-Present Program: +1 year to restart and transition into final design
- 2023 Proposed Baseline: +6-12 months float

	ST3 (2016)	Board Directed Pause, & Realignment (2020-2021)	Program restart and target (Jan. 2022-Present)	Proposed Baseline (with added float)
Bus Base North	2023	 2025	 2026/2027	Q4 2027
S1 (I-405 South)	2024/25	 2026	 Q4 2027	Q3 2028
S2 (I-405 North)	2024/25	 2027	 Q4 2028	Q2 2029
S3 (SR-522)	2024/25	 2026	 Q4 2027	Q2 2028

Schedule Drivers

Bus Base North

- Permitting:
 - Land use code change triggered transfer of development rights study and code update – longer duration than anticipated.
 - Conditional use permit
 - Canyon Park Business Park codes, covenants, and restrictions (CCRs):
 - Modified to preclude bus base - negotiating resolution

I-405 BRT

- S1:
 - TIBS: agreements delayed due to staff capacity, fish passage risk
 - South Renton Transit Center
 - Changing City feedback and conditional use permit
 - KCM betterments – uncertainty, could result with significant design changes
- S2:
 - Brickyard-SR 527 design-build requires additional time due to ground conditions
- S1 and S2
 - Electric bus charging modified Bellevue layover needs

Schedule Drivers

SR 522/NE 145th BRT (S3)

- Refinements during 60%-90% design
 - Lake Forest Park community feedback and issues resolution resulted with modified property acquisition needs
 - Bothell storm water management requirements modified property acquisition needs
- Right of way acquisition
 - Design refinements delayed initiation of some right of way acquisition due to need for partners' review and approval – QRA assumes 2+ year acquisition process
- Code changes and permitting
 - Lake Forest Park modifying its code now to prescribe wall treatment, tree mitigation
- Construction risk
 - Utility relocations
 - Potential for unforeseen conditions

Proposed Baseline Schedule

	Proposed Baseline
Bus Base North	Q4 2027
S1 (I-405 South)	Q3 2028
S2 (I-405 North)	Q2 2029
S3 (SR-522)	Q2 2028

Schedule mitigation

Maximize immediate use of improvements

ST Express and partners' use of new facilities

- 2025: NE 44th platform
- 2026: NE 85th platform
- 2027: South Renton Transit Center

Potential phased Stride openings

- S1: 2027 opening with temporary stop at TIBS.
Complete TIBS station in 2028
- S3: adapt construction packaging and timing as code and permitting evolves.

Summary: Today's requested actions

Adopt the Baseline for the Program: budget and schedule

- Bus Base North
- I-405 Bus Rapid Transit (S1 and S2)
- SR 522/NE 145th St. Bus Rapid Transit (S3)

Baseline actions trigger budget amendments for each project

Thank you.



 [soundtransit.org](https://www.soundtransit.org)

