

NE 130th St Infill Station

System Expansion Committee

January 9, 2020



Goals for today

- Respond to Board direction from Sept 2018 and report on Preliminary Engineering results
- Discuss options and next steps
 - System Expansion Committee briefing, today Jan. 9th
 - Potential SEC and Board actions Feb. 13th and 27th



Project overview

- Included in ST3 Plan as infill station (start 2024, open 2031)
- Elevated, side-platform station at NE 130th St and 5th Ave NE in Seattle
- Located along Lynnwood Link Extension (LLE) guideway alignment, 2200 daily riders
- Environmental review addressed in Lynnwood Link Extension FEIS and NEPA Re-Evaluation

Infill station construction disrupts service and impacts customers

Up to 61,000 daily riders potentially affected, nearly 90% from Snohomish and North King subareas

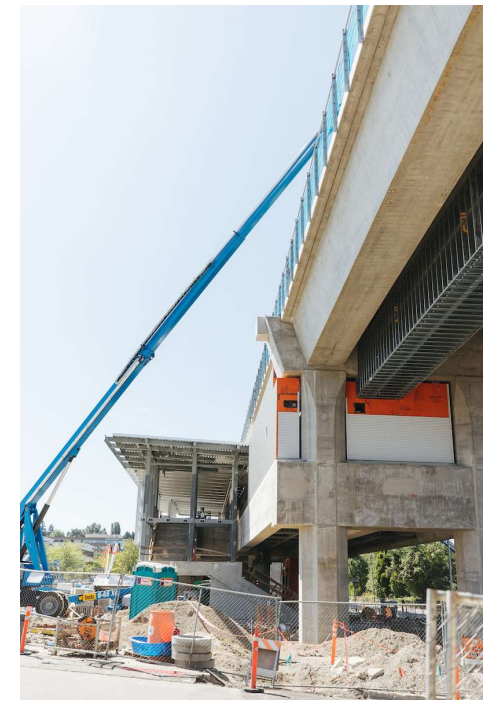
- Service delays due to single-tracking
- Potential system-wide delays could affect many more riders
- Restricted construction window – nighttime construction and higher cost
- Repeated neighborhood impacts
- Mitigation expenses



September 2018 Board discussion

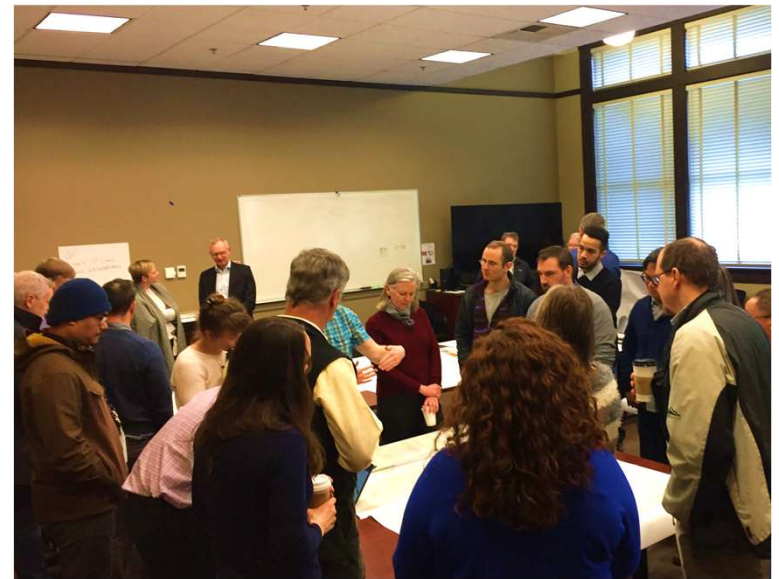
NE 130th Infill Station

- Discussed challenges with infill construction and unique opportunity to avoid or minimize disruption to Lynnwood Link Extension service
- Staff directed to complete Preliminary Engineering, develop options, identify costs and benefits and report back



Collaboration with partners

- Conducted a series of workshops on station design and access
- Addressed constructability constraints with the narrow site
- Secured concurrence with City of Seattle and WSDOT on major station elements and footprint
- Transit Integration plans with King County Metro

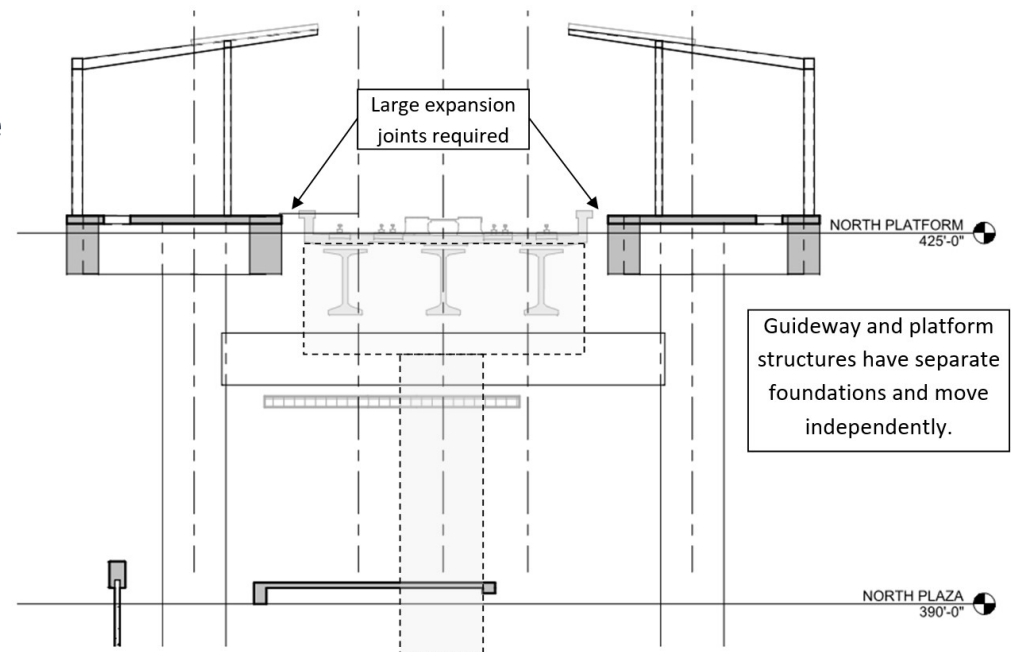


Preliminary Engineering Results

Original design – separate structures

ST3 Plan

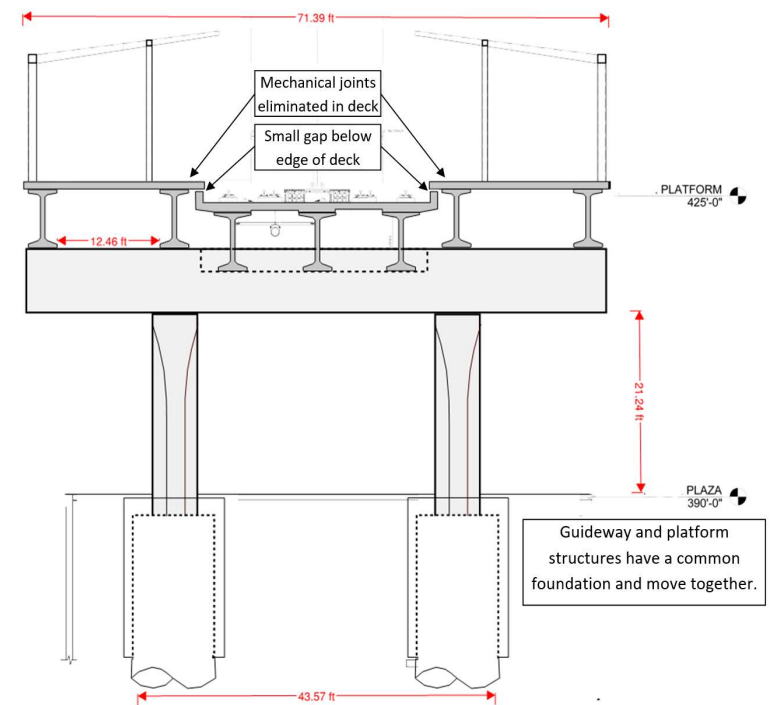
- Guideway designed as separate structure due to timing of LLE and NE 130th projects
- Requires large expansion joint
- Would proceed in 2024 with this design if no further action by Board



Preliminary Engineering design

Integrated structure performs better

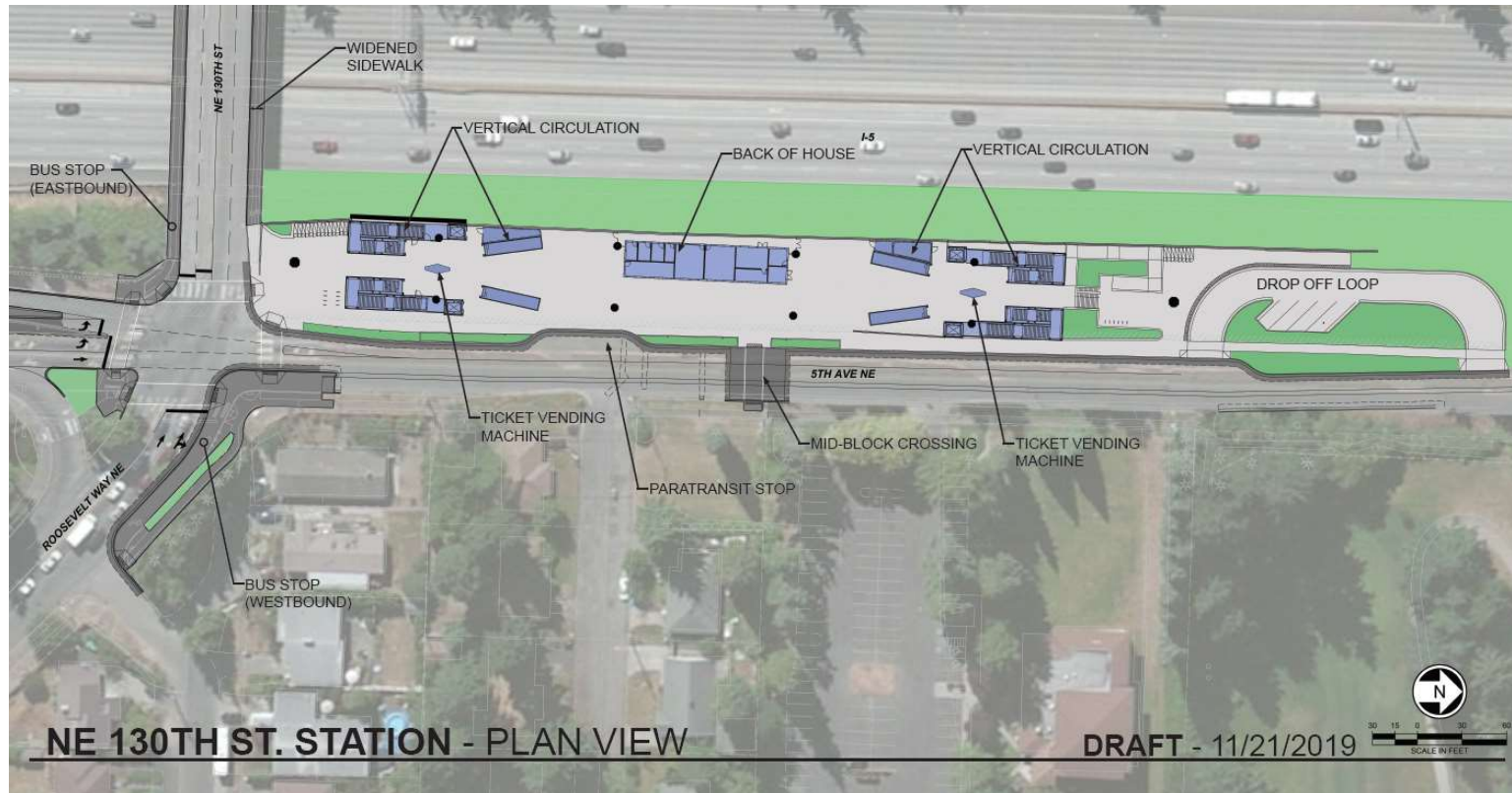
- Better customer experience, safer
- Improved seismic performance
- Reduced monitoring and maintenance
- Consistent with other ST station designs
- Likely lower construction cost
- Easier to build



Preliminary Engineering design



Preliminary Engineering design



Design progress

Completed

- Integrated station 30% design
- Platform layout
- Plaza size, drop-off locations and footprint

In progress

- Desired station access improvements exceed ST3 allowance
- Construction permitting for potentially accelerated schedule

Project cost estimate has increased (2018\$)

Original ST3 estimate: \$72M

Updated ST3 estimate: ~\$174M (incl. \$30M difficulty factor)

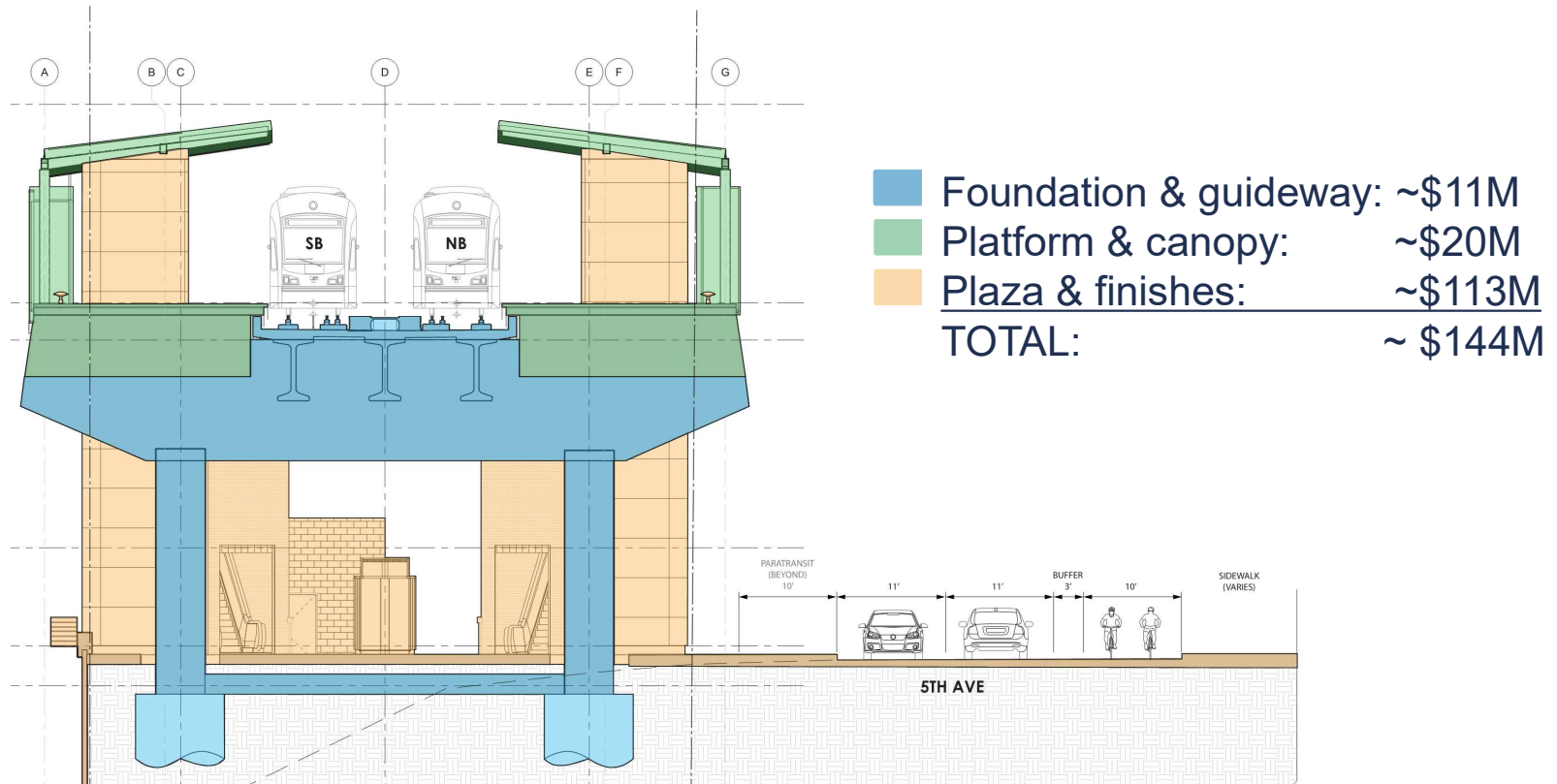
***Updated estimate (integrated design, accel. delivery):
~\$144M***

- Many factors are attributed to the increase:
 - ST3 estimate based on early LLE estimate, then available
 - Market conditions
 - Additional requirements from updated Sound Transit Design Criteria Manual
 - Better understanding of site constraints

Construction estimate increase is much like other Lynnwood Link stations

Station	Original Construction Estimate (2018\$)	Updated Construction Estimate (2018\$)	% Variance
145th Station (ST2)	\$35.3	\$55.2	56%
185th Station (ST2)	\$41.3	\$52.9	28%
Mountlake Terrace (ST2)	\$38.6	\$63.9	66%
Lynnwood Station (ST2)	\$35.3	\$64.6	83%
130th Station (ST3)	\$39.3	\$72.0	81%

Packages for integrated design

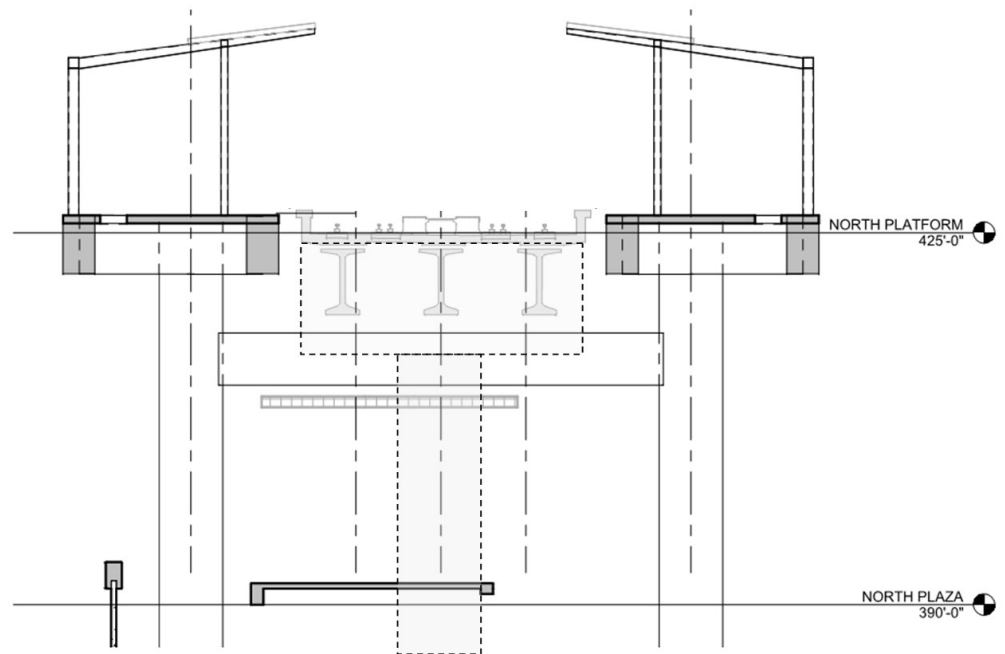


Scenarios analyzed

ST3 Plan – original schedule

Restart in 2024, open by 2031

- Separate station structures
- Results in service disruption and neighborhood impacts

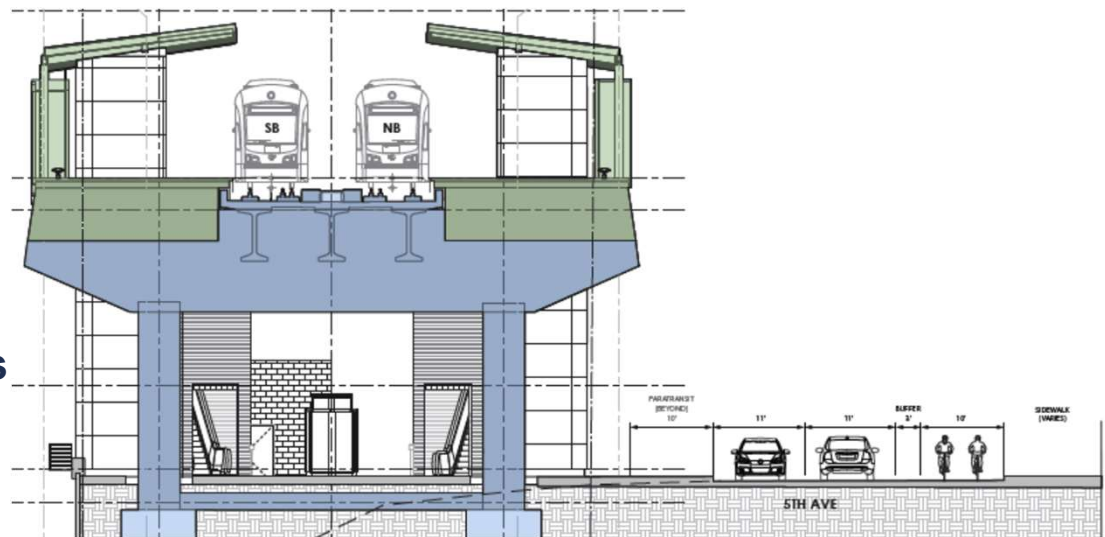
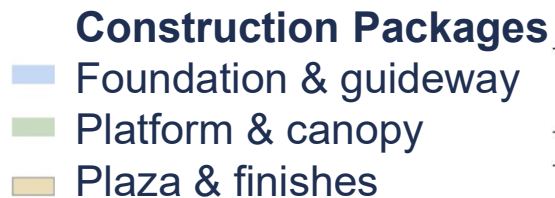


Early partial build

Complete first two packages by 2023

Complete third package later and open by 2031

- Minimizes service & neighborhood disruptions
- Integrated design



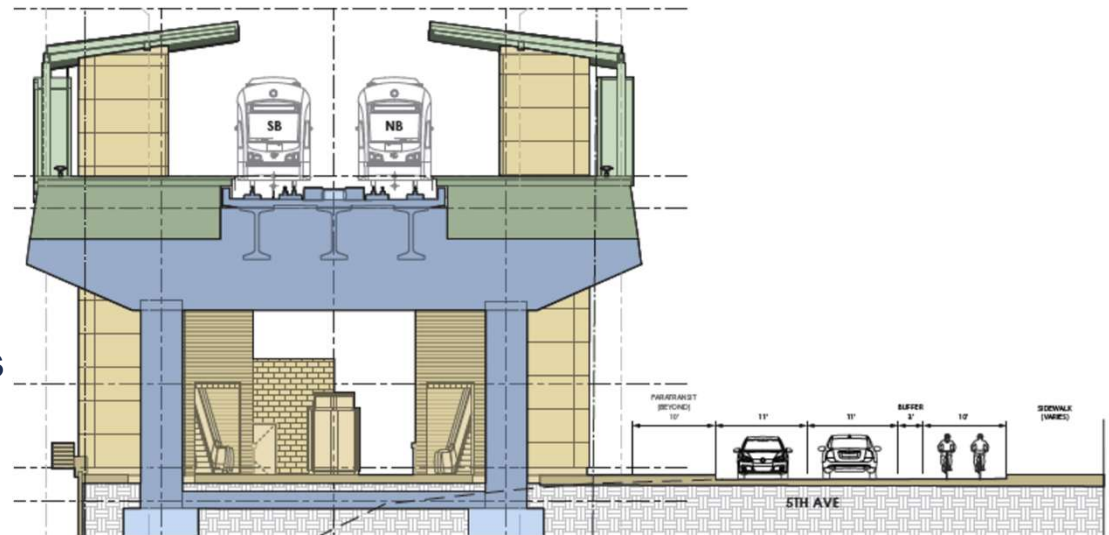
Early full build

Complete all construction packages and open ~2025

- Avoids most service & neighborhood disruptions
- Integrated design

Construction Packages

- Foundation & guideway
- Platform & canopy
- Plaza & finishes



Financial analysis

- Use ST3 Plan timing as a basis for analysis
- Compare early partial build and early full build to ST3 plan timing
- Factors: Capital cost including construction timing and difficulty factor, operations and maintenance, state of good repair, debt service

Financial impact (2017-2041 in 2018\$)

Additional costs compared to ST3 Plan timing

<u>Factor</u>	<u>Early partial build</u>	<u>Early full build</u>
Capital Cost	(\$7M)	(\$30M)
O&M Cost	\$3M	\$8M
SOG R	-	\$4M
Debt Service	\$11M	\$51M
Net Additional Costs	~\$7M	~\$33M

Options for Board Consideration

Options for consideration in Feb 2020

1. No further work, return to original ST3 Plan schedule

2. Advance incrementally

- Complete final design of entire project
- Complete construction of foundation/guideway and platform/canopy packages
- Determine timing for final construction package

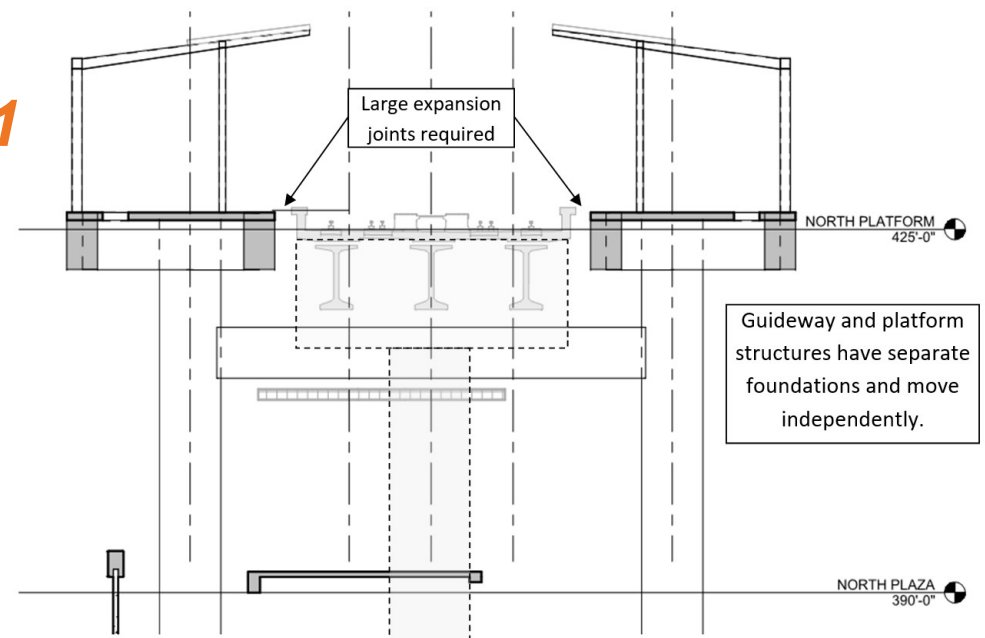
3. Advance fully, open ~2025

- Complete final design of entire project
- Complete construction of all packages
- Open ~2025

Option 1 – Original ST3 Plan

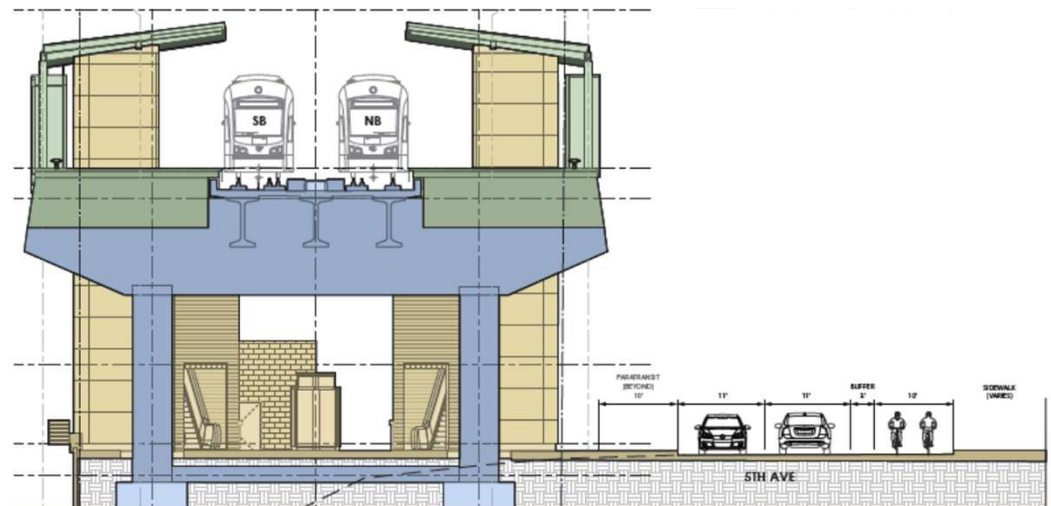
Return to ST3 Plan schedule
Re-start project in 2024
Complete and open by 2031

- Separate station structures
- Results in service & neighborhood disruptions



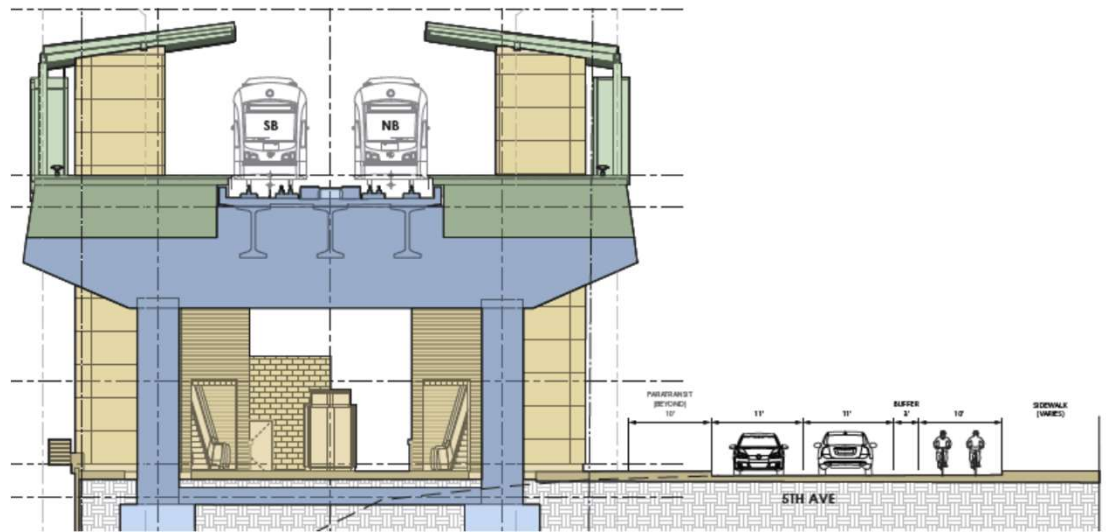
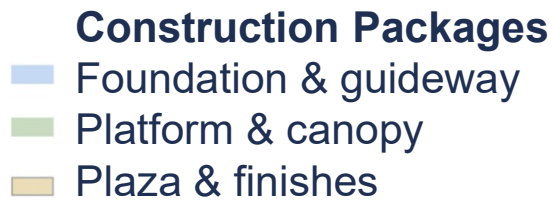
Option 2 – Advance incrementally

- **Feb 2020:** Consider authorizing final design, and consider authorizing construction of Foundation/Guideway.
- **Q2 2021:** Consider authorizing construction of Platform/Canopy. Consider schedule for Plaza/Finishes.
- Minimizes service & neighborhood disruptions
- Integrated design



Option 3 – Advance fully

- **Feb 2020:** Consider authorizing final design, consider authorizing construction of Foundation/Guideway. Provide direction to complete the station early and open in ~2025.
- **Q2 2021:** Authorize construction of Platform/Canopy and Plaza/Finishes packages.
- Avoids most service & neighborhood disruptions
- Integrated design



Summary

Comparison of options 1, 2 and 3

<u>Issue</u>	<u>Option 1</u> ST3 Plan schedule	<u>Option 2</u> Advance incrementally	<u>Option 3</u> Advance fully
Integrated design	No	Yes	Yes
Service disruption addressed	No	Minimized	Mostly avoided
Neighborhood impact addressed	No	Minimized	Mostly avoided
Open for service	2031	TBD	~2025

Thank you.



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