

LRV Fleet Expansion Project

*System Expansion Committee
2/11/2021*

Why we are here

- Update on Light Rail Vehicle Fleet Expansion
 - Commissioning
 - Schedule
 - Risks, mitigation & next steps
- Briefing only, no action required



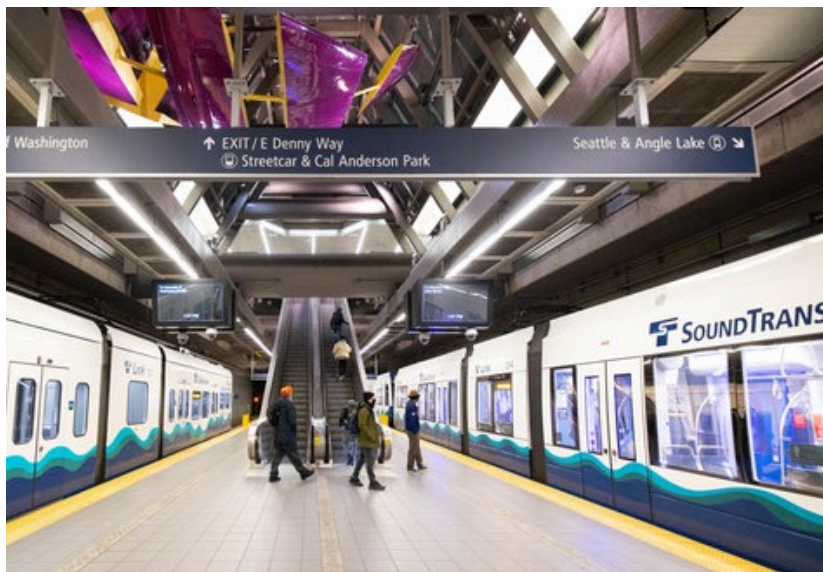
Light Rail Vehicle (LRV) Fleet Expansion

152 new light rail vehicles to support expansion of Link service through 2024

- Northgate, East Link, Lynnwood, Downtown Redmond and Federal Way Link Extensions

- On budget, 36% complete
- Manufacturing on/ahead of target
- Commissioning behind schedule

- Covid-19 challenges being addressed and monitored



Burn-In Test, Capitol Hill Station

Testing & Commissioning

Purpose:

- Ensure safe and reliable fleet, validate LRV performance
- Phase began July 2019

Qualification Tests – Siemens led

- 95% complete
- Ends after reliability test, 1000-mile “burn-in”

Systems Integration Tests – ST led

- 96% complete
- Re-test in progress on last open item

“OCS Live Wire test”



Burn-in Test

Simulated operation of LRVs between in-service trains – evenings and weekends.



Tweet

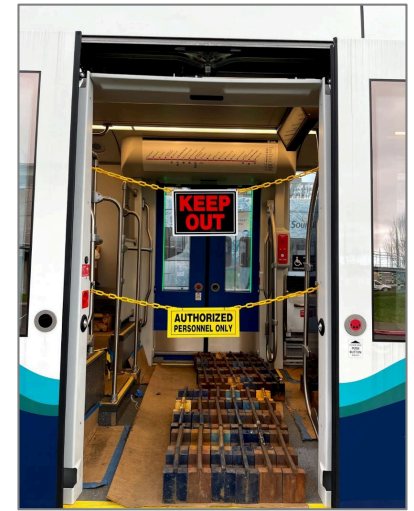
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@JHop_Seattle



New @SoundTransit trains out in the wild for testing this weekend (no passengers).



Remaining Effort to Complete Testing

Technical issues resolved since November 2020

- Signal interface passed, with no deviations from ST standards
- EMI re-test, software updates, interior noise levels

Current activities required to qualify the fleet:

- Adjustments to pantograph interface with overhead power system
- Fault-free 100 mile “burn-in”
- Adjusting interior heating units that respond to cold temperatures
- Passenger information / signage punch list closeout

Routine tests on every car:

- On-going need for track time in non-revenue hours

Safety & Security Certification

Safety & Security Certification – 86% complete

- Documentation review to verify compliance with requirements

Readiness to Operate and Maintain

- Parts, tools & manuals, database required for preventative maintenance – still in progress
- Mainline training of operators, 25% complete
- One maintenance procedure update pending
- Infrastructure modifications - ready
- Emergency preparedness - complete

Receiving inspection, 37th car in shop



Conditional Acceptance

LRV verified as safe and reliable for passenger service

- Milestone for each car delivered
- ST accepts ownership
- Warranty period begins

ST requires 6 cars conditionally accepted to put in-service

- 37 cars in Seattle, 20 ready for mainline testing

Projected schedule:

- 6 cars by end of March 2021
- 1st train in revenue service at this milestone

Project Risks, Mitigation and Next Steps

Schedule risk:

- Qualification of fleet further delayed
- Resurgence of COVID-19 presents new, unexpected delays
- Competing demands for resources impact rate of recovery

Schedule Recovery status:

- 42 days float on Northgate Link Baseline date

Next steps:

- Update committee again in Spring 2021



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