

+ UTA Draft Light Rail Plan Board of Trustees Presentation



November 30, 2022

Future of Light Rail Study



Light Rail Draft Plan Presentation Agenda

- Background
- Key recommendations
- Benefits
- Funding and implementation phasing
- Next steps



Study Background



Purpose of Study



The UTA light rail network has served the community for over 20 years and is a backbone to the region's transportation service

Needs addressed:

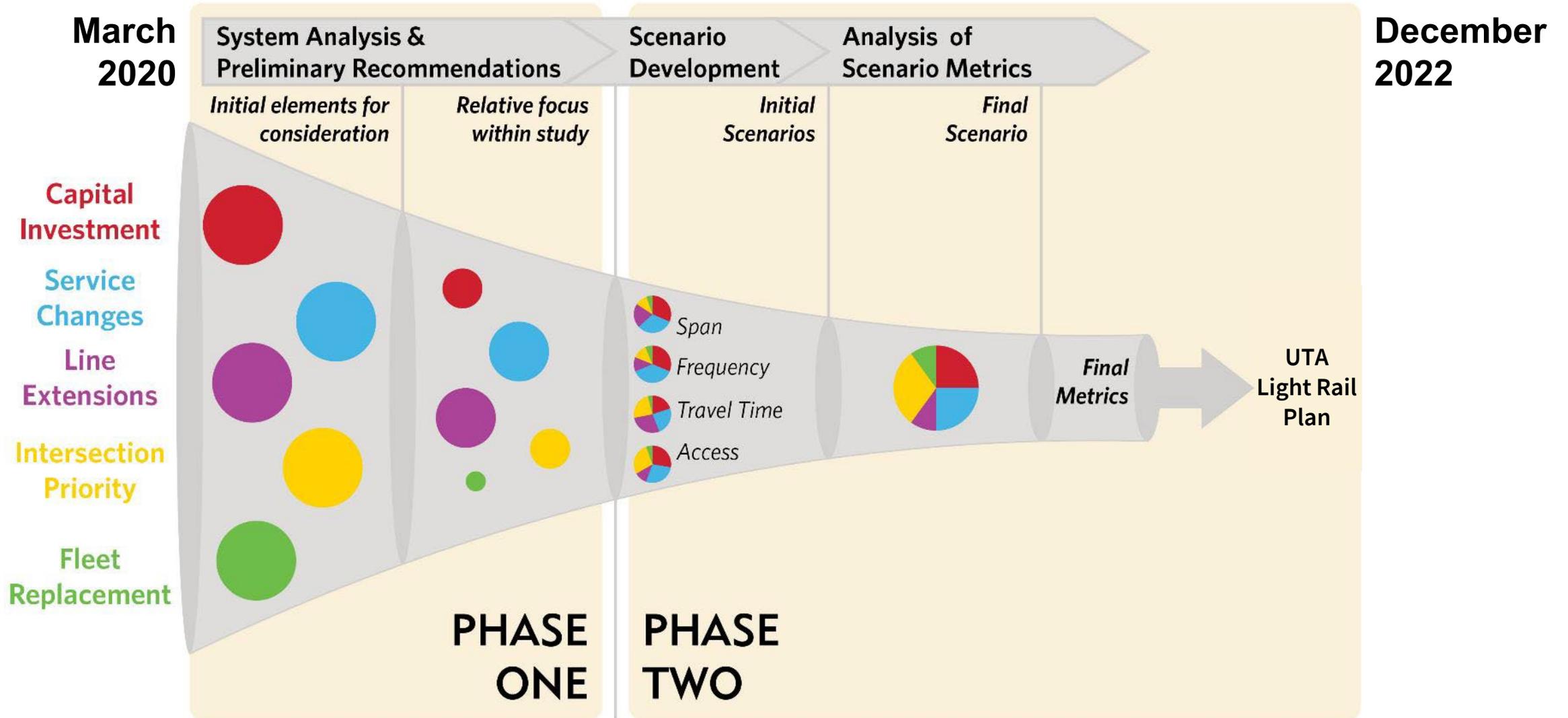
- Comprehensive analysis of the network
- Guidance for improvements in both the short and long term

Scope Included LRT and Streetcar:

- Existing service
- Proposed expansions per 2019 MPO adopted RTPs if:
 - Shown as "funded" in RTP
 - There was not a separate study underway



Development Process



Engagement



Stakeholders were engaged throughout the study. A process was also in place to inform the public and solicit input at key points.

Engagement efforts included:

- Multiple workshops & presentations
- Online and in-person surveys
- UTA study webpage



A blue and red light rail train is stopped at a station platform. The train has a destination sign that reads "GRN-AIRPORT" and a logo for "UTA" (Utah Transit Authority). A person is walking on the platform to the left of the train. The background shows a city street with buildings and trees.

Key Recommendations



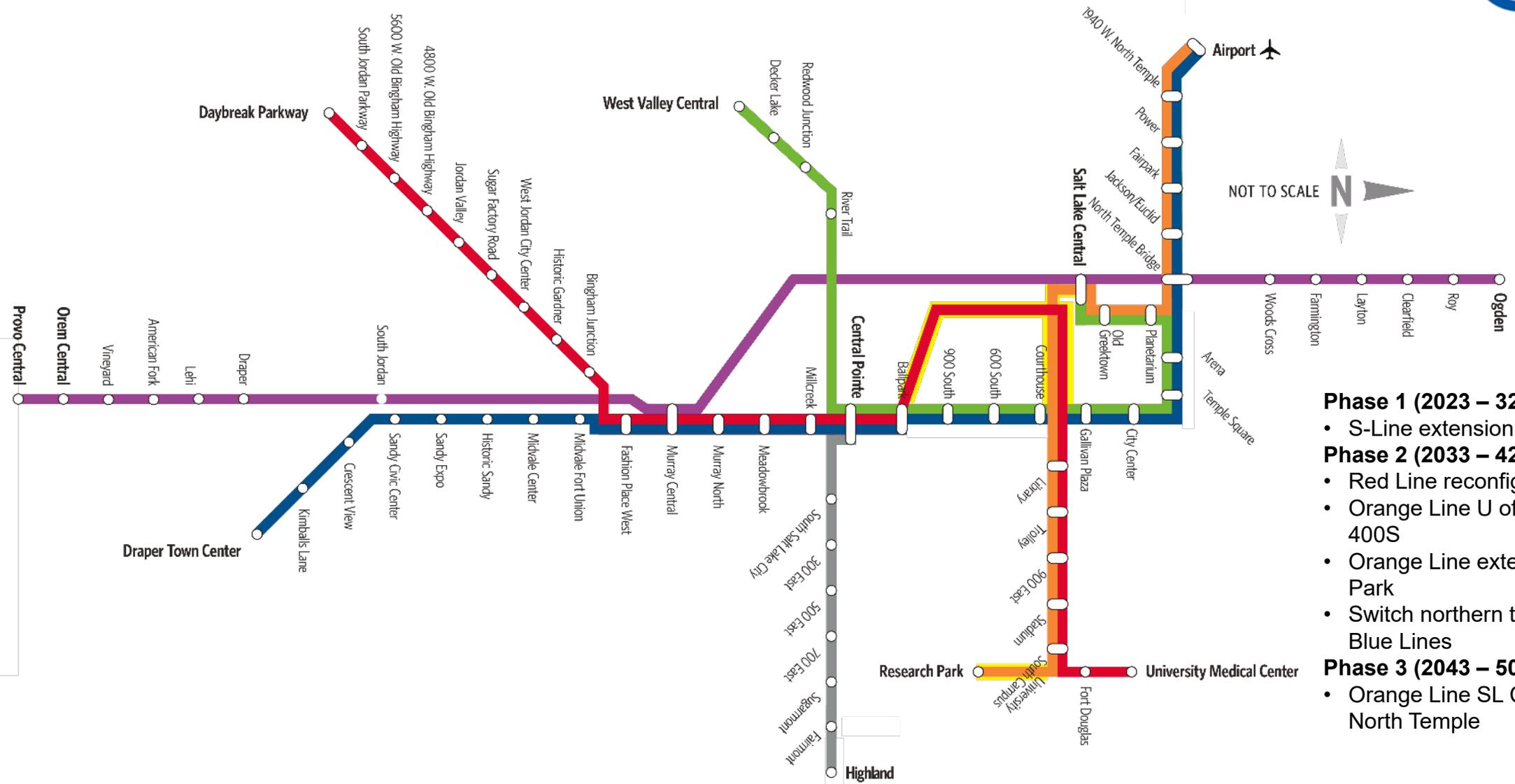
Key Recommendations



1. Plan for possible **service expansion and reconfiguration**
2. Optimize **fleet efficiency**
3. Fund and schedule key **infrastructure renewal/improvement** projects
4. Collaborate with partners to **increase transit signal priority**
5. Enhance **span of service**



1. Expansion and Reconfiguration Plan



- Phase 1 (2023 – 32)**
 - S-Line extension to Highland
- Phase 2 (2033 – 42)**
 - Red Line reconfiguration
 - Orange Line U of U/SL Central via 400S
 - Orange Line extension to Research Park
 - Switch northern terminus of Green and Blue Lines
- Phase 3 (2043 – 50)**
 - Orange Line SL Central/Airport via North Temple



2. Fleet

- Replace original fleet with new low floor cars
 - Approaching end of useful life
 - Limited accessibility
 - 55mph speed constraint
- Optimize fleet size
 - 3 car standard train
 - Consistent with existing UTA service standards for passenger space/comfort
 - Reduction in spare ratio
 - Maintains UTA spare ratio standard





- Trunk line speed improvements
 - Increases Trunk Line max speed
 - Increase other curve speeds
- Service reliability improvements
 - Central Pointe Union interlocking turnback
 - 400W (Pioneer Park) Connector
 - Improves ability to handle special events and system failures
- Traction power upgrades
 - Critical for continued system reliability





4: Priority

Improve Transit Signal Priority across system

- Reduce delay through 19 critical intersections
- Speeds LRT trips while supporting efficient use of intersections by all users
- Requires UDOT and Salt Lake City coordination





5. Service



- Extend span of service across all lines
 - Add up to 2 hours of service/day by renegotiating for reduced freight window (where feasible)
- Possible late/early airport service
 - Requires additional study to assess demand



HATCH LTK

GRN-AIRPORT

Plan Benefits



Reliability

Future Baseline (2050) vs. Light Rail Plan (2050) Simulated On-Time Performance					
	TRAX Train Line				Combined Average
	Blue Line	Red Line	Green Line	Orange Line	
Future Baseline (2050)	96.0%	89.1%	92.6%		92.5%
Light Rail Plan (2050)	95.0%	99.0%	93.5%	97.3%	96.4%



Higher Ridership



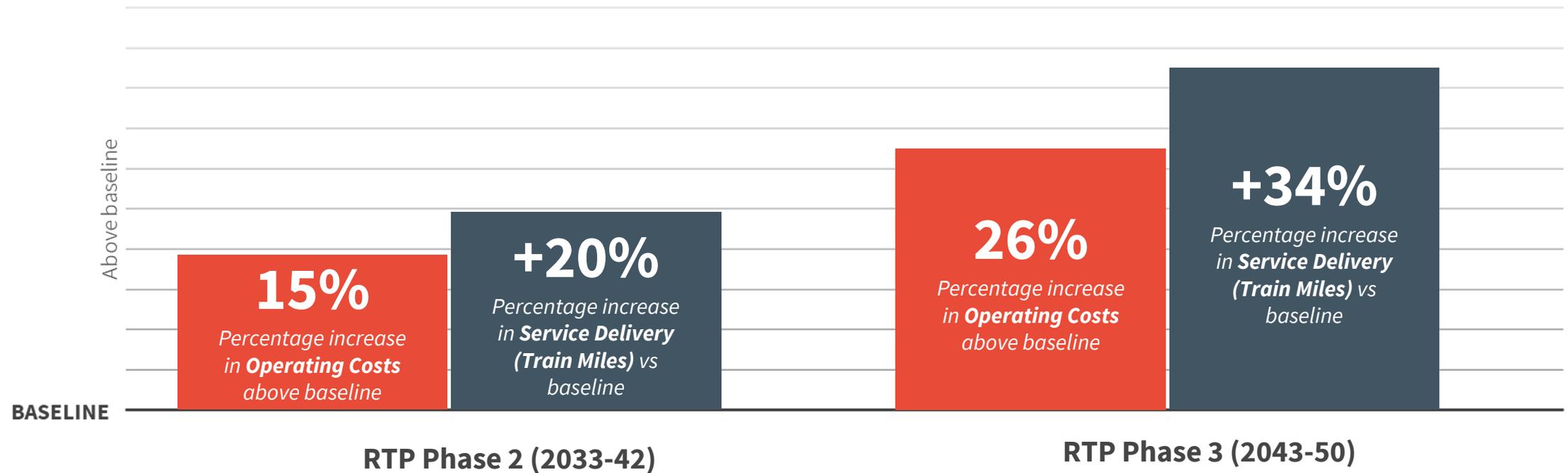
Metric	Future Baseline (2050)	Increase from 2019	Light Rail Plan (2050)	Plan Change from Future Baseline	Plan Change from 2019
Daily Total TRAX Boardings	95,500	+63%	102,800	+8%	+71%
Daily Total Transit Boardings	232,800	+50%	237,600	+2%	+52%



Delivering Service More Efficiently



Operating costs for 2033 and for 2043 increase, but the region sees a **bigger increase in service delivered**

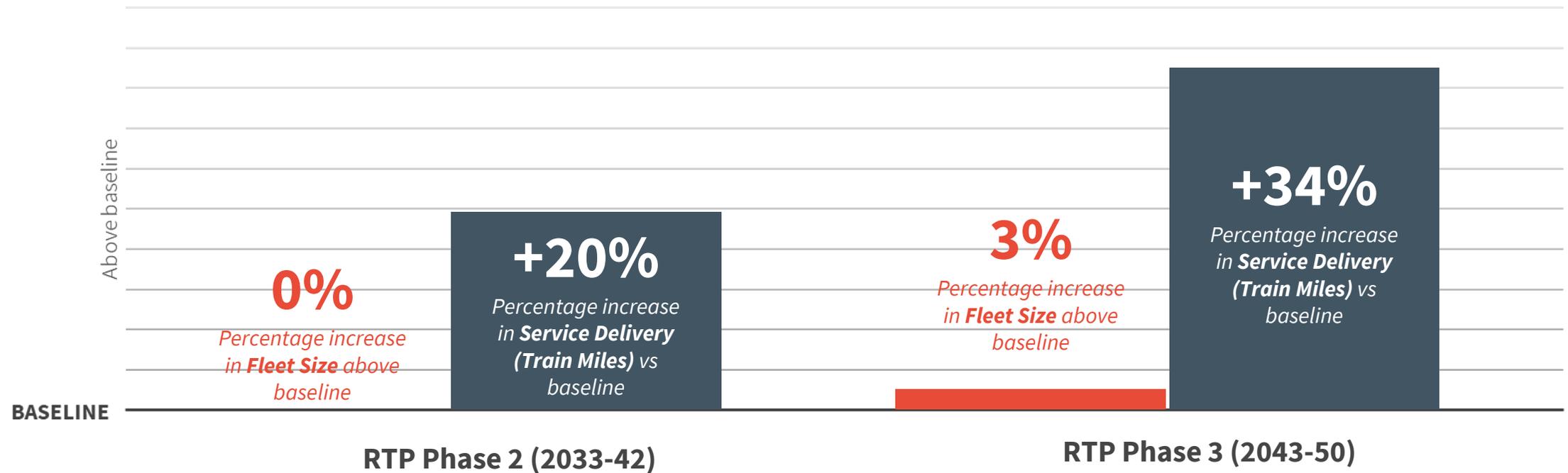




Using the Fleet More Efficiently



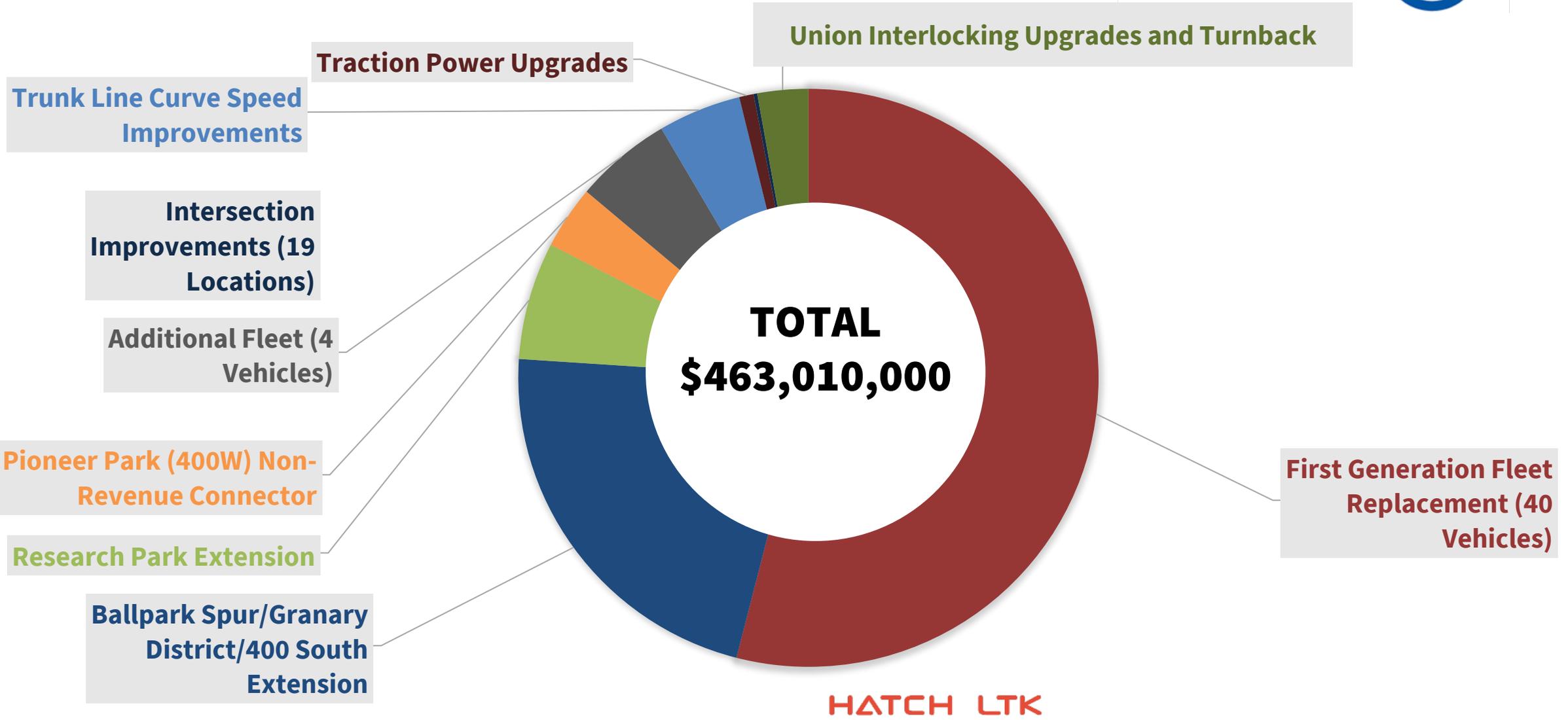
The Plan for 2033 requires no new fleet and yet delivers **+20% more service**.
The Plan for 2043 requires only 4 new cars (an increase of 3%) while providing **+34% more service**.



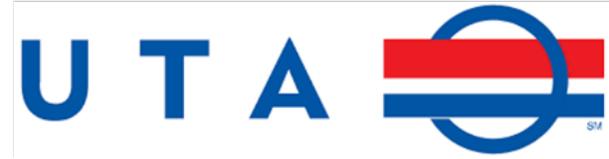


Plan Funding and Implementation

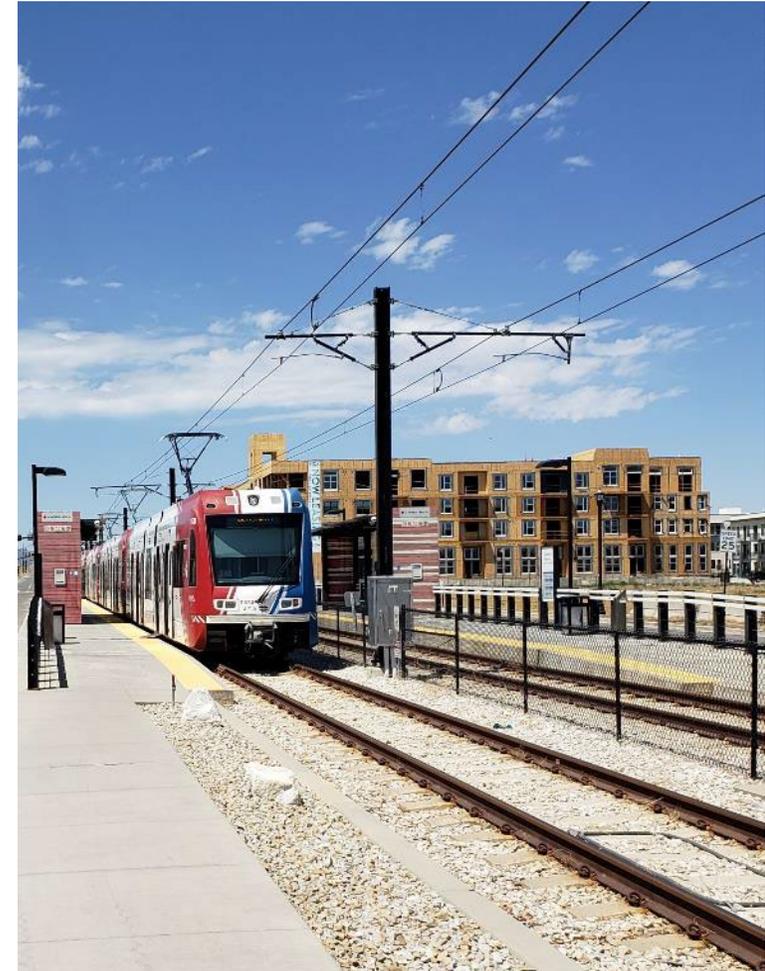
Capital Cost Estimates - RTP Phases 2 and 3



HATCH LTK



- State and local funding
- FTA funding
 - RAISE Grants
 - Capital Investment Grants (Section 5309)
 - Surface Transportation Block Grants
 - Grant Program for Rail Vehicle Replacement
- Value capture strategies
 - Tax Increment Financing
 - Station joint development (public/private partnerships)





Recommended Plan Implementation Phasing

Improvement	Near Term UTA Actions	Possible Implementation Timeframe
Intersection Transit Priority Improvements	Engage Salt Lake City, UDOT	2023-24
Trunk Line Speed Improvements	Initiate Design	2024-26
Start Service Earlier, End Later	Initiate Freight Rail Negotiations	2026-27
Operate Late Night/Early Morning Airport Service	Requires Further Demand Study and Analysis of Regional ROI	2026-27
Service Reliability Improvements – Union Turnback	Initiate Design	2027-28
Replace First Generation Fleet	Complete Specification, RFP	2027-30
Research Park TRAX Extension	Proceed with TechLink Study, Refine Concepts, Station Locations, Service Strategy, Funding	2033-34
Granary District TRAX Expansion		2035-45
Service Reliability Improvements – 400W Connector		2035-45



Next Steps



- Finalize plan document
- Plan dissemination:
 - TechLink data handoff to inform study
 - Recommended capital improvements to UTA Cap Dev team
 - Fleet plan assumptions
 - Continue discussions with UDOT and SLC on TSP improvements
- Incorporation of recommendations into Regional Transportation Plans



Thank You! Questions?