

# *Vertical Conveyance Program Update*

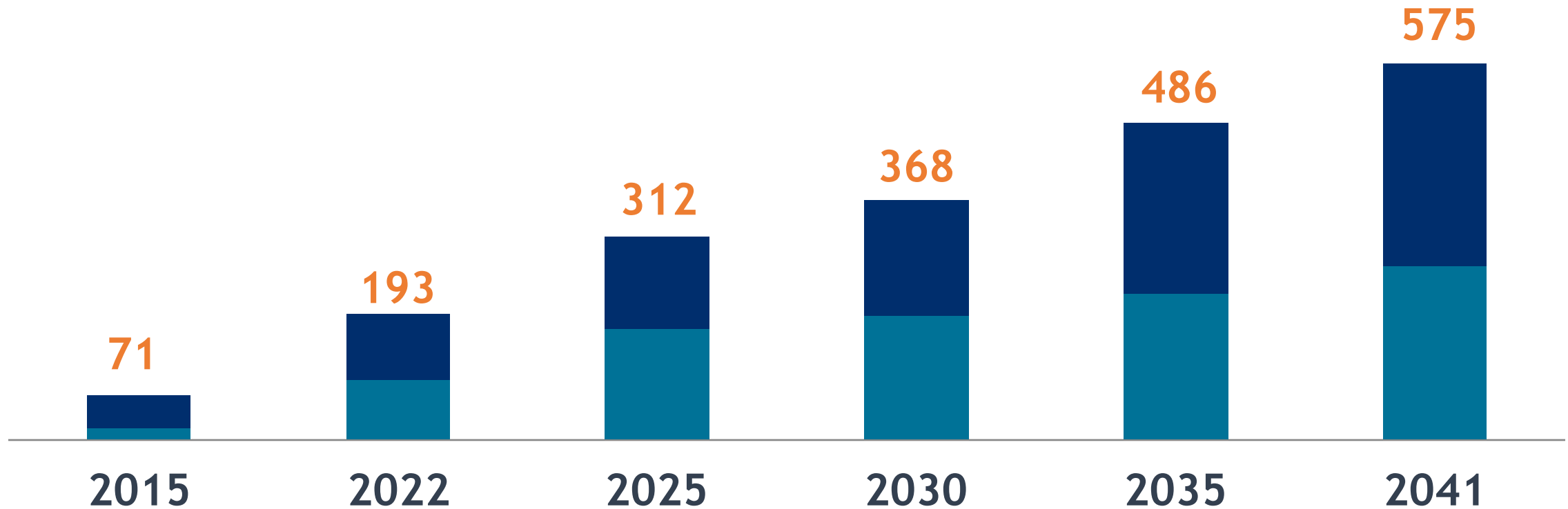
# *Why Are We Here*

- *Vertical conveyance program overview*
- *Downtown tunnel asset performance optimization*
- *Vertical conveyance replacement program update*

# *Conveyance Team Vision Statement*

Create a *passenger* focused vertical conveyance program centered on *safety* and *reliability* by leveraging maintenance, technology & data to optimize performance and keep all stakeholders better informed.

# More assets to manage as system grows




- 62% growth managed assets between 2022-2025
- Estimated fleet of 575 by 2041

# Program Updates

- Continued Growth
- Enhancing Passenger Communications
- Asset Replacement Program




**! Rider Alert** 

**This unit is out of service due to vandalism.**

**We apologize for the inconvenience.**

To learn more about its anticipated return to service, please scan the QR code.



 Interpreter 800-823-0230  
7 a.m.–7 p.m. Monday–Friday  
Español Tagalog pyñoneñ wate  
漢語 한국어 日本語 Tiếng Việt

For more information, please call  
888-889-6366 / TTY: 711

# Reporting Updates

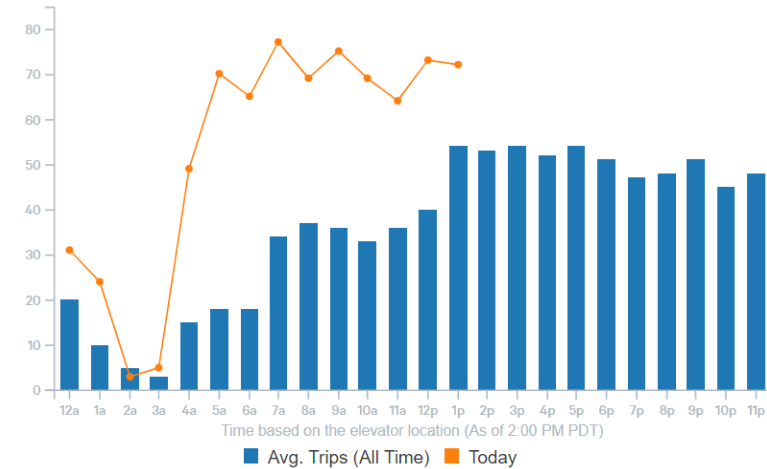
## Elevators Outages

Service	Station	Location	Reason	Estimated Return
Link	Westlake Station	#307 - Station Access	Mechanical	TBD
Link	University Street Station	#501 - Station Access	Vandalism	7/15
Link	University Street Station	#506 - Station Access	Mechanical	6/21
Link	Pioneer Square Station	#705 - Station Access	Mechanical	TBD
Link	Int'l District/Chinatown Station	#904 - Station Access	Vandalism	6/23

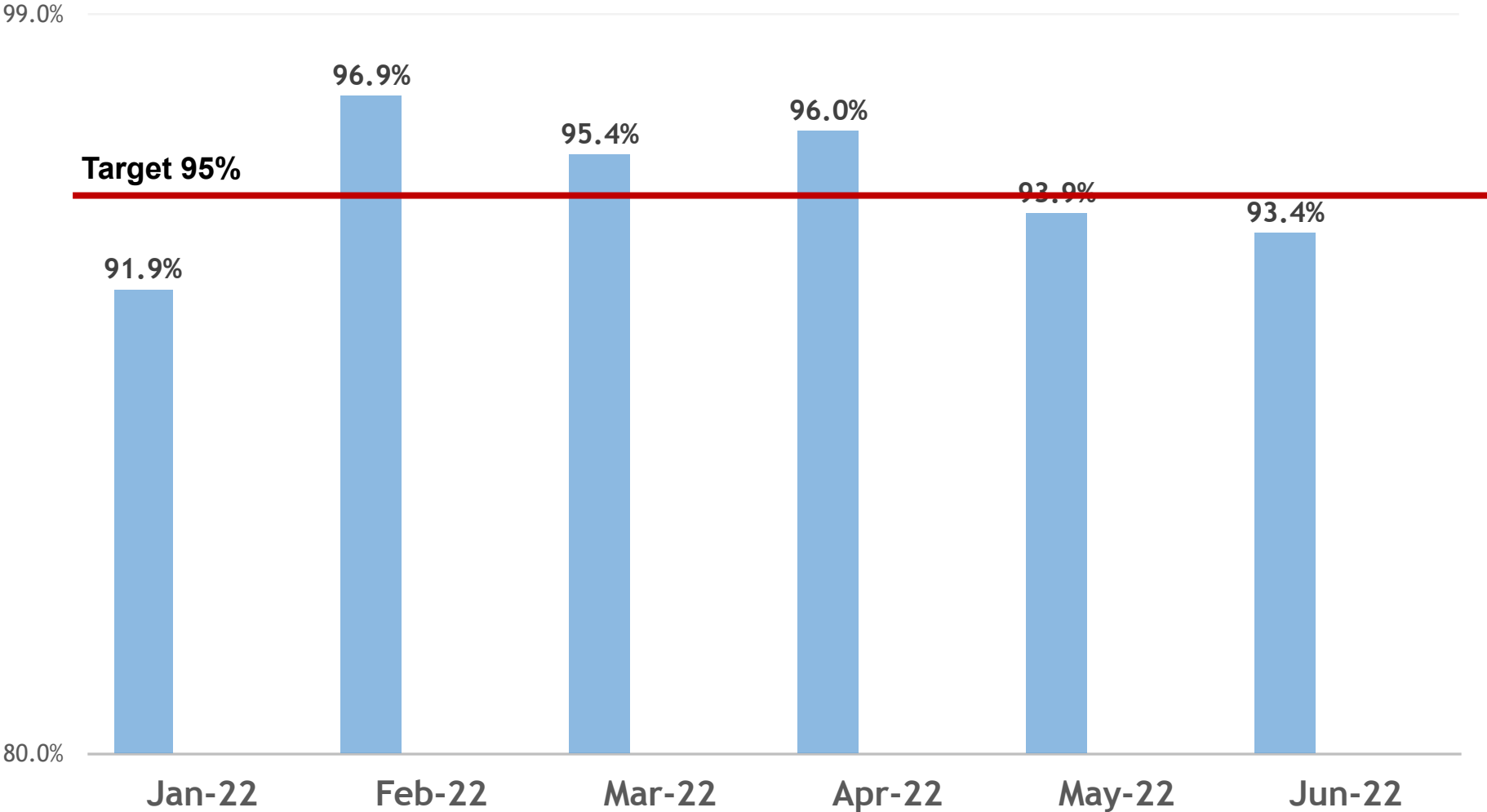
- ST Service Alert Updates
- Continued Enhancements to Passenger Facing Data and Reporting
- Internal Data Analytics Enhancements
- Notification Challenges of Inoperable Assets

# Advancing Technology Update

- Internet of Things Sensor Pilot
- Real Time Monitoring and Outage Alerts
- Performance Data and Trends
- Traffic Analysis

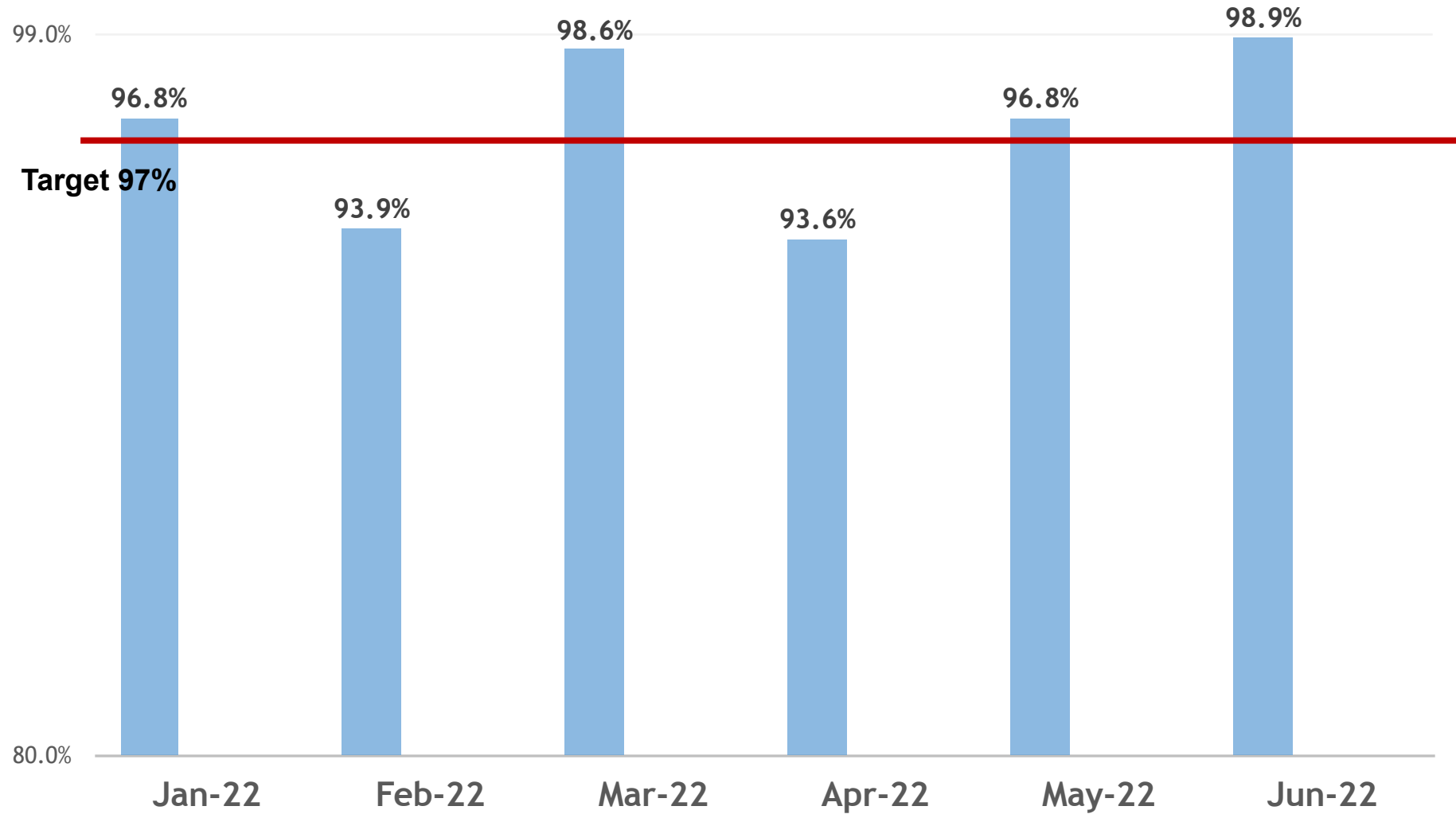


# Link escalator availability excluding downtown tunnel stations

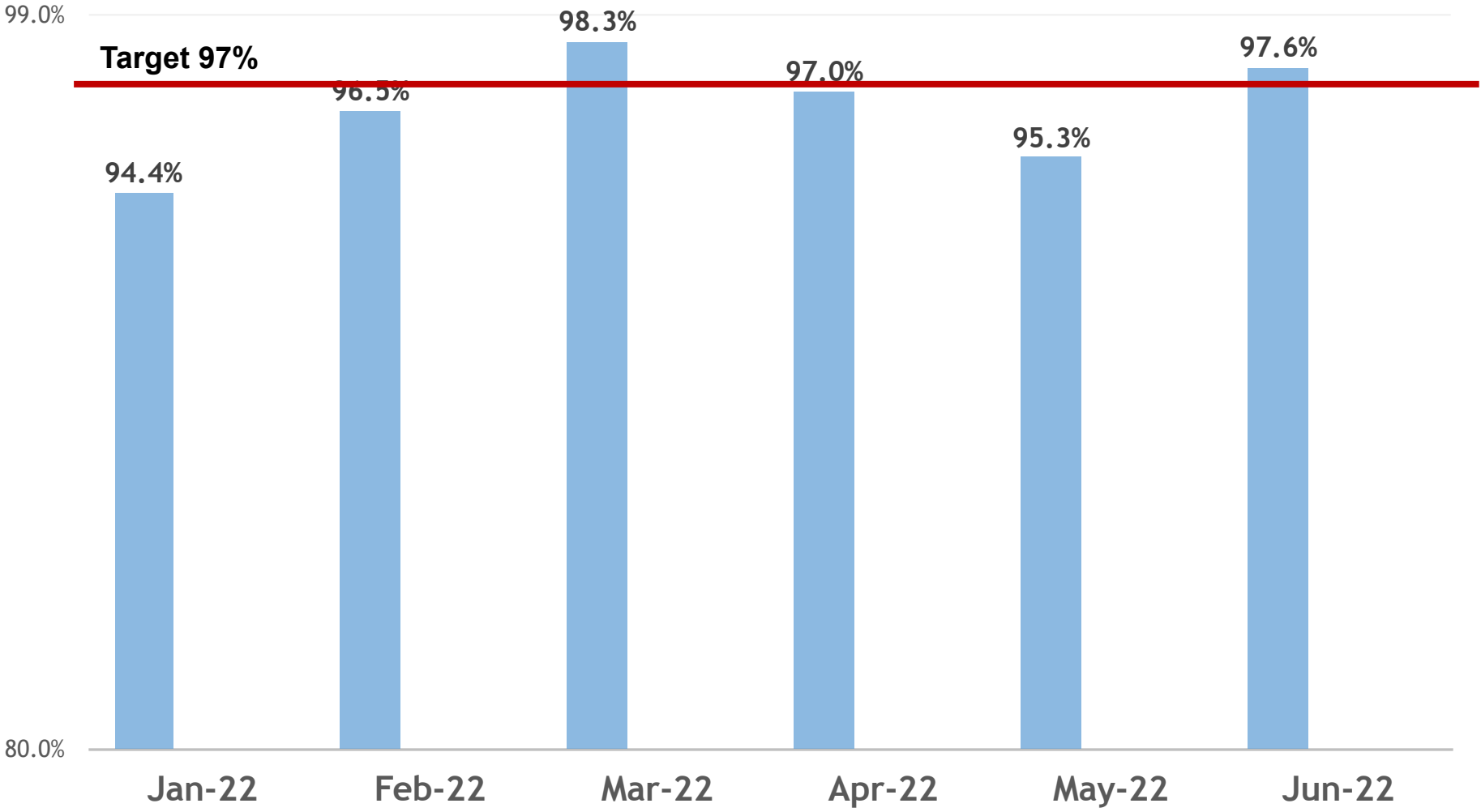




## Link elevator availability excluding downtown tunnel stations



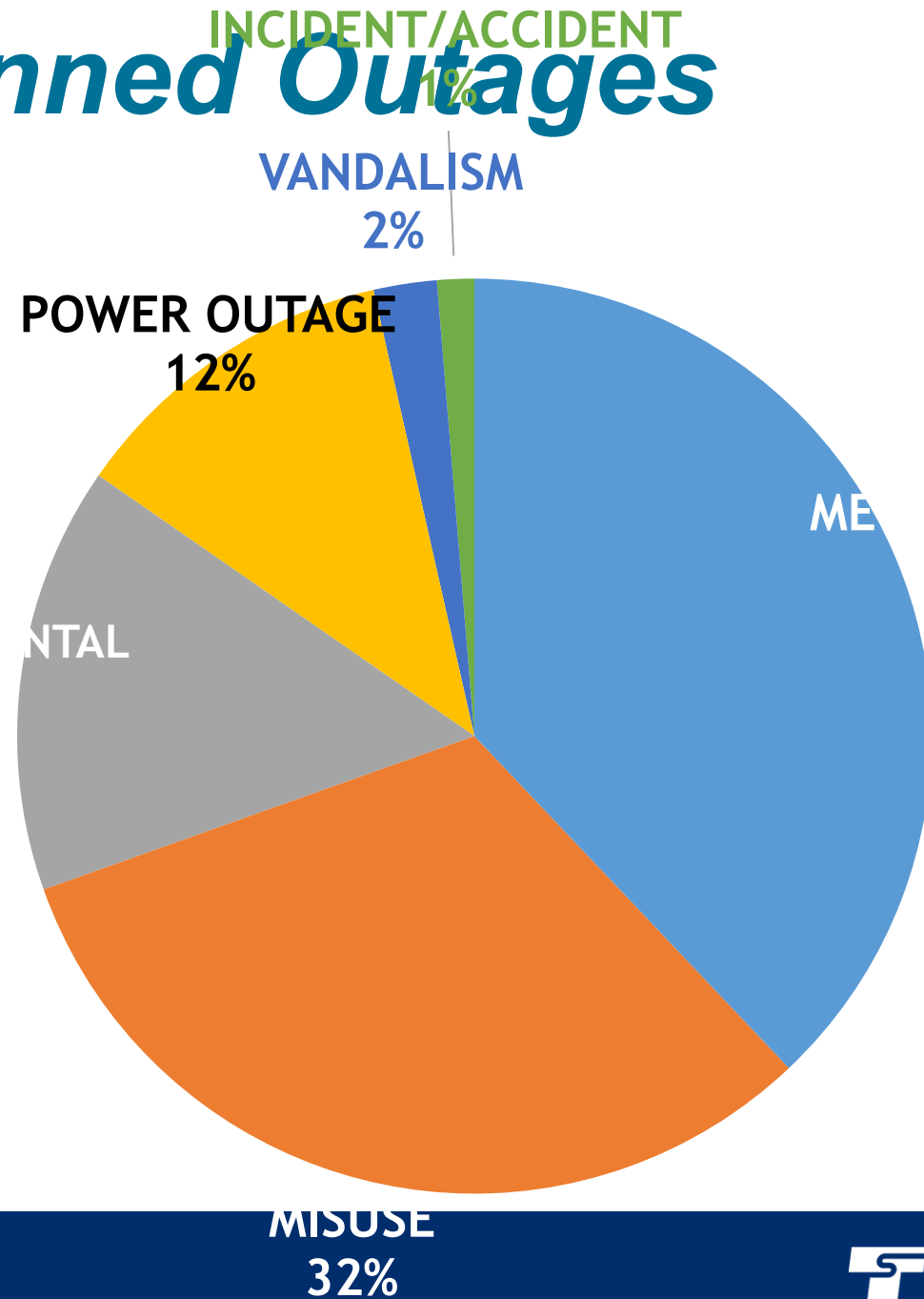
# Sounder/ST Express elevator availability



# Asset Unplanned Outages

Jan 1<sup>st</sup> – Jun 30<sup>th</sup> 2022  
Total Unplanned Outages

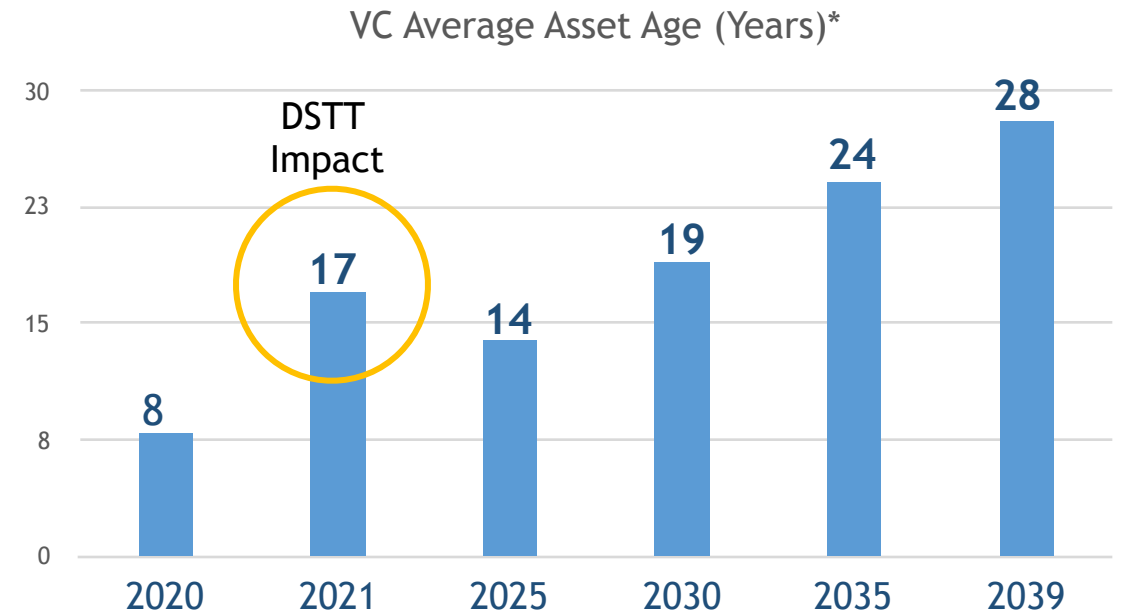
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# *Downtown Seattle asset updates*

# Tunnel ownership transition

- Jan 1<sup>st</sup> 2021 Sound Transit assumed management
- \$8.7 million Board-approved funding
- \$3.6 million\* spent in 2021
- Estimated \$2.2 million in 2022



\*Includes new expansion assets. Excludes replacement/refurb program.

# Critical component replacement

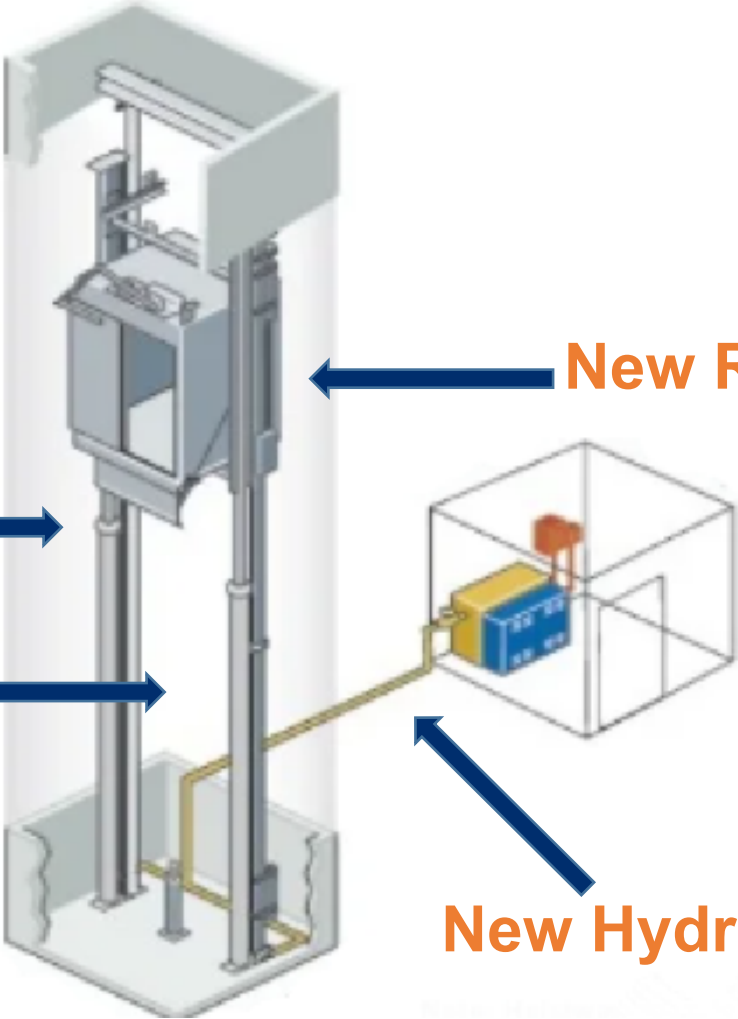
Door Component Replacement

New Jack Seals

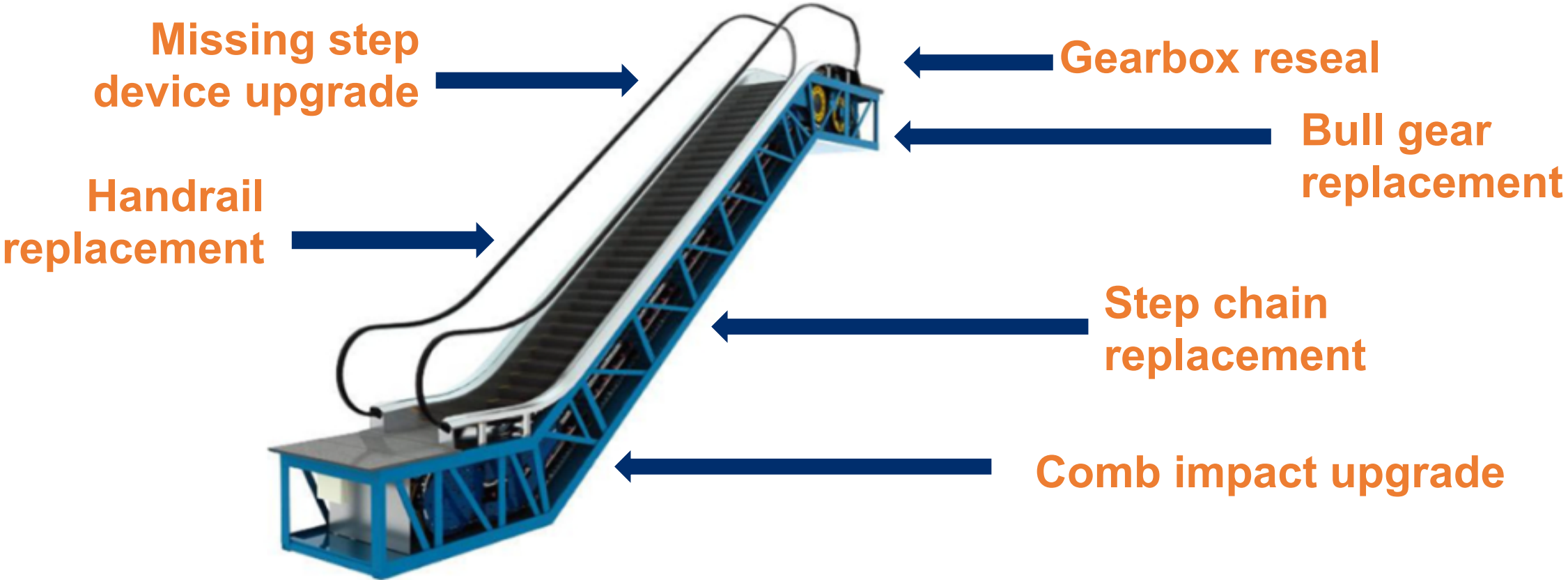
Traveling Cable Replacement

New Rail Guides

New Hydraulic Valves



# Critical component replacement with safety upgrades

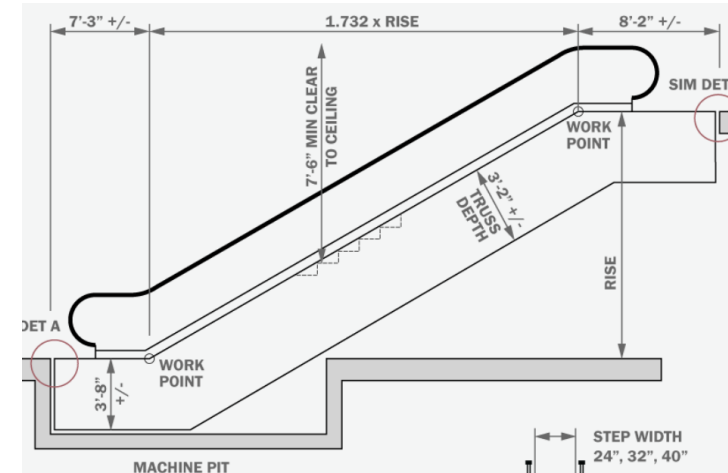


***Vertical Conveyance  
Replacement Program***



# Replacement Design Strategy

- Using our new expansion design criteria as our guideline for replacement
- New Programmable Logic Controllers
- Building standardization throughout our portfolio
- Replacement design includes structural, mechanical, HVAC elements



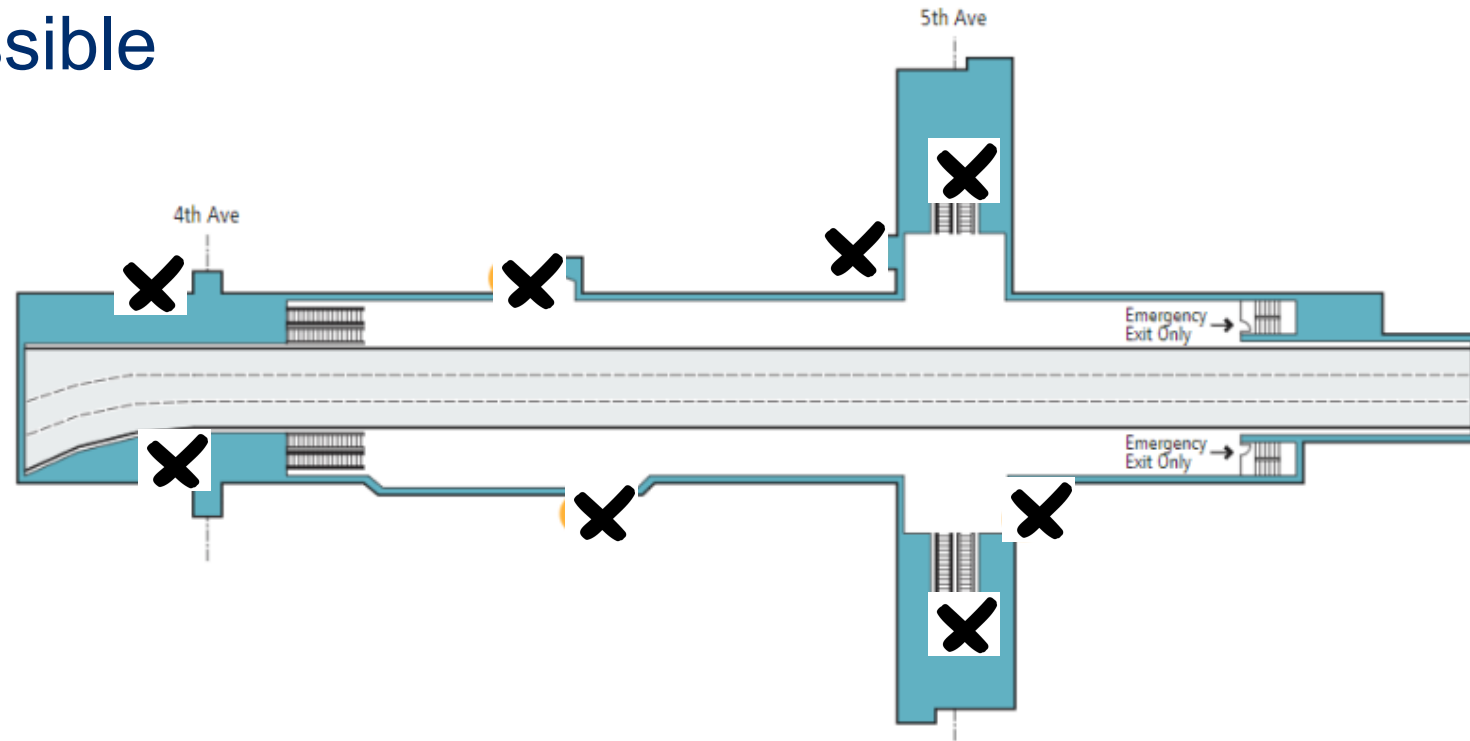
# *Replacement Constraints*

- Limited qualified industry vendors/contractors
- Time needed for updated permitting, design, vendor procurement
- Long manufacturing lead times (42-52 weeks)
- Project management and Consultant resources
- Long installation times (several months, depending on site)
- Service planning remains the single largest constraint

# Replacement Constraints

## Service impacts

- Need to stagger installations in order to keep stations ADA-accessible
- Limits contractors to one or two assets at a time
- Potential single tracking



# Current progress

## International District

- Assessment/design completed
- Procurement scheduled for August 2022
- Replacement of four escalators and four elevators
- Construction scheduled to begin Q4 2023 – Q1 2024
- Work underway for interim restoration of two escalators with severe water damage



# Progress

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- Assessment completed
- 1<sup>st</sup> Final design package begins September 2022
- 2<sup>nd</sup> Final design package begins Q2 2023
- 2 Procurements scheduled for 2023 (Q2,Q4)
- Construction timeline TBD



Needs image

# Progress

Meet

Completed

- 1<sup>st</sup> Final design package begins September 2022
- 2<sup>nd</sup> Final design package begins Q2 2023
- 2 Procurements scheduled for 2023 (Q2,Q4)
- Construction timeline TBD



# Progress



- Assessment scheduled to be completed in 2022
- Final design packages will be completed through 2023
- 2 Procurements scheduled for 2024 (Q1,Q4)
- Construction timeline TBD

*Thank you.*



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