

Vertical Transportation Program Update

Rider Experience and Operations Committee

06/06/24



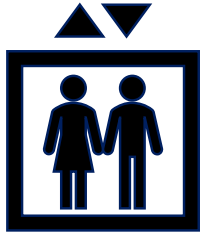
Why we are here

- Timeline progression of the Vertical Transportation (VT) program
- An overview of our overall elevator/escalator portfolio
- Downtown Tunnel strategy and progress
- Vertical Transportation modernization strategy and short-term impacts

VT Program Progression

- 2018 - Updated new construction specifications
- 2019 - Appointed a VT Manager
 - Awarded comprehensive maintenance contract
- 2020 - Began detailed VT outage data analysis
- 2021 - Initiated Modernization Program effort
 - Assumed management of 58 DSTT VT assets
- 2022 - Increased levels of service
- 2023 - Began live monitoring hardware installations
- 2024 - Modernization construction to begin at IDS

Current portfolio



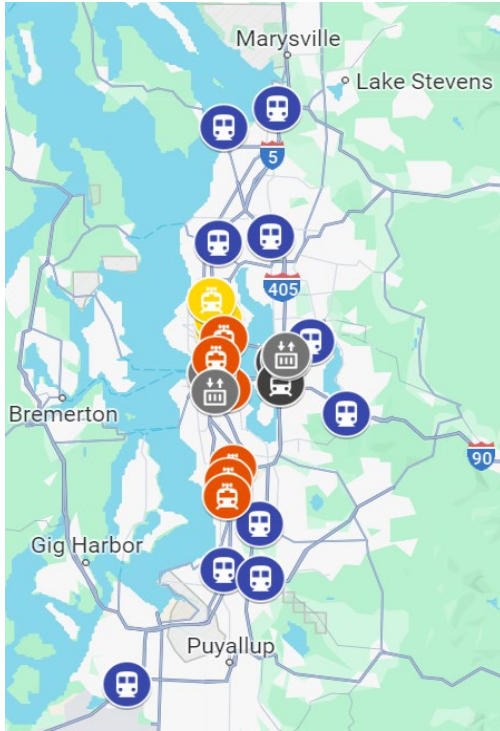
122 Elevators



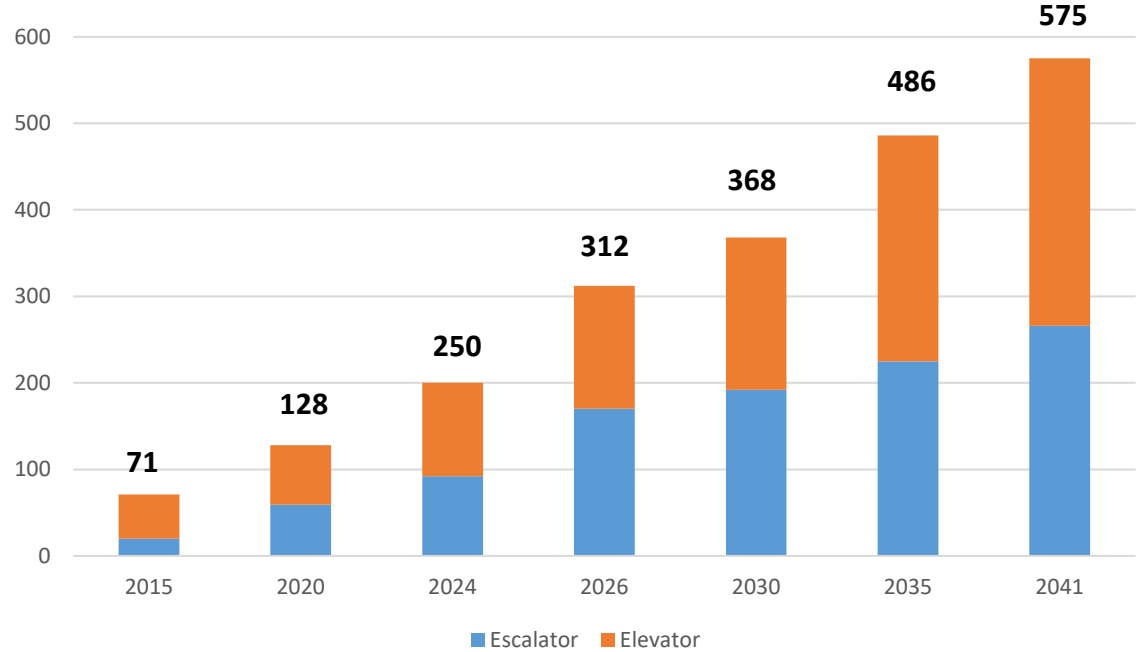
101 Escalators

- Opening LLE will bring our total asset count to 250 by the end of 2024

Asset Portfolio Growth



Spans from Everett to Lakewood – 70 Miles



- Estimated to be a fleet of 575 by 2041

Downtown Tunnel VT background

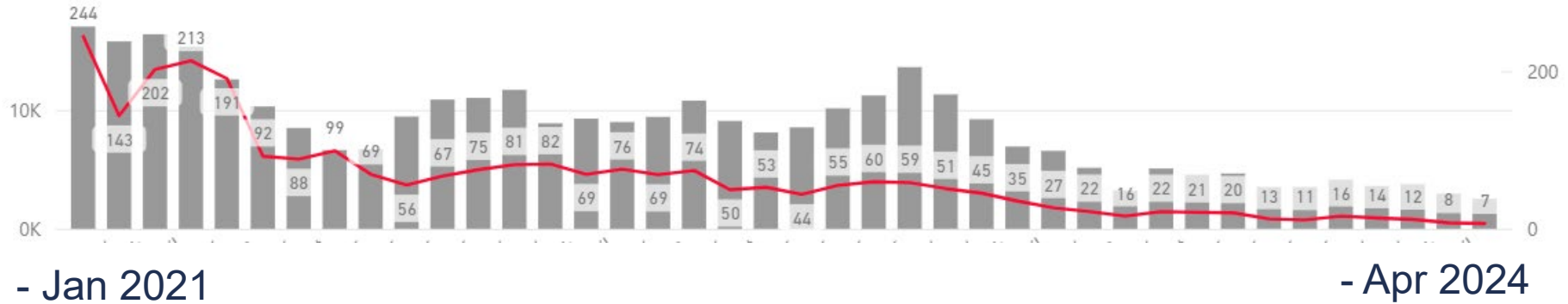
- The 58 Downtown Seattle Transit Tunnel VT assets are currently over 35 years old
- Board approved \$8.7M for repairs and safety upgrades of Downtown Tunnel VT assets in late 2020 to improve passenger availability while we execute our modernization strategy
- On Jan 1, 2021, Sound Transit commenced our tandem strategy of repair/upgrades and modernization of all tunnel station elevator/escalator assets

Passenger availability (All categories)

Link - Outage of Service Hours vs Average RTS Time



● Downtime — Average



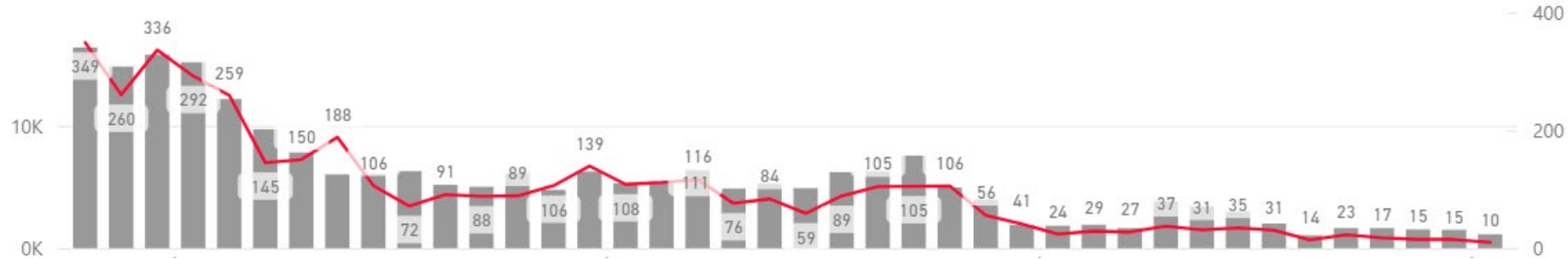
- Decreased monthly out of service hours by from 17,100 to 2,500
- Decreased average return to service (RTS) per outage from over 200hrs per outage to 7

Passenger availability (Mechanical related)

Link - Outage of Service Hours vs Average RTS Time



● Downtime — Average



- Jan 2021

- Apr 2024

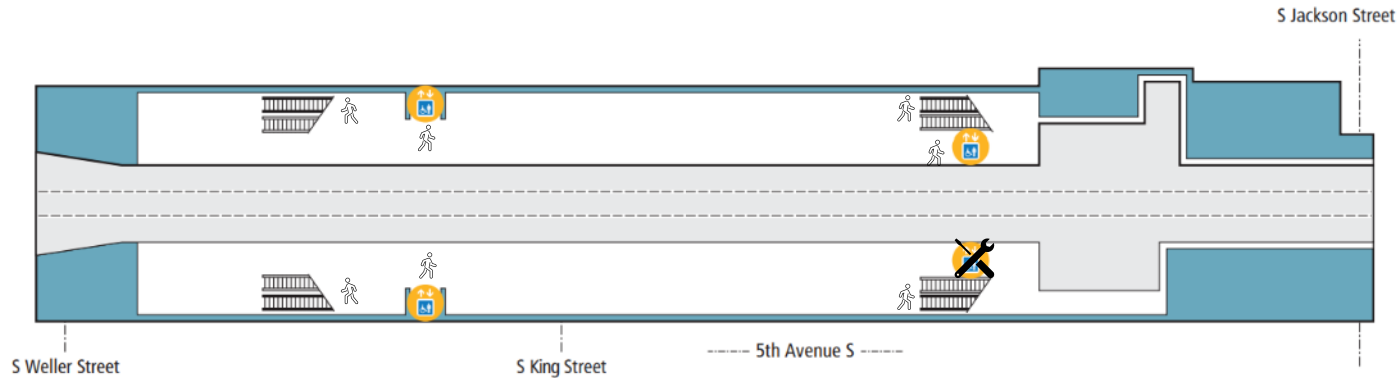
- Decreased Mechanical related monthly out of service hours by from 16,400 to 1,100
- Decreased average Mechanical related return to service (RTS) time per outage from nearly 300hrs per outage to 10

***IDS Modernization Construction
Phasing and Prioritization***

Passenger Focused Modernization

June 2024 - Elevators are First Priority / Jack Replacement on Elevator 901

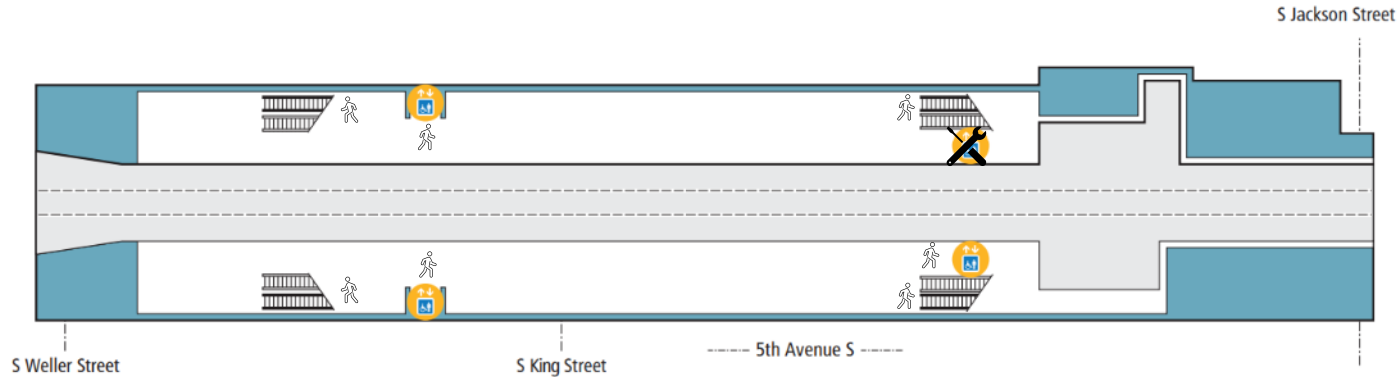
Int'l District/ Chinatown Station: Platform



Passenger Focused Modernization

July 2024 - Elevators are First Priority / Jack Replacement on Elevator 902

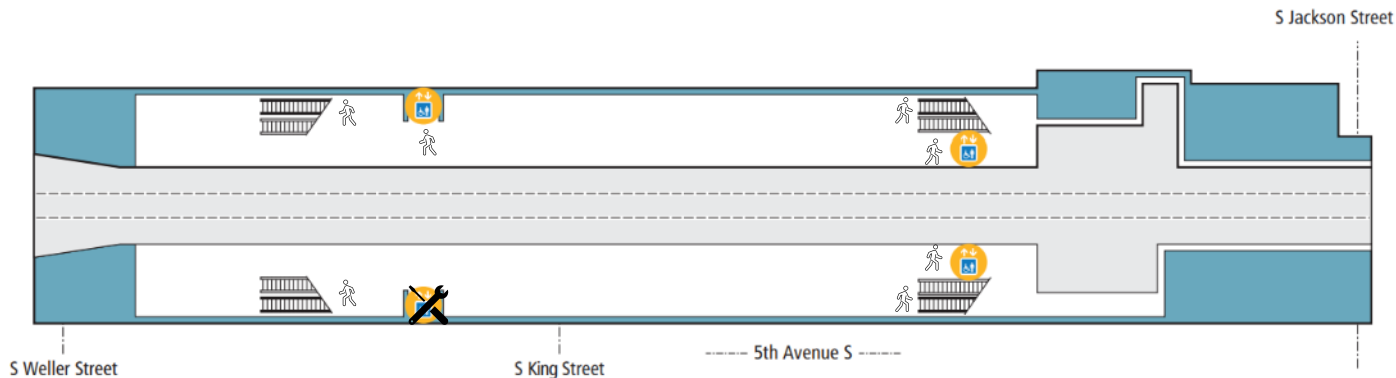
Int'l District/
Chinatown Station: Platform



Passenger Focused Modernization

August 2024 - South End Elevators / Jack Replacements Elevator 903

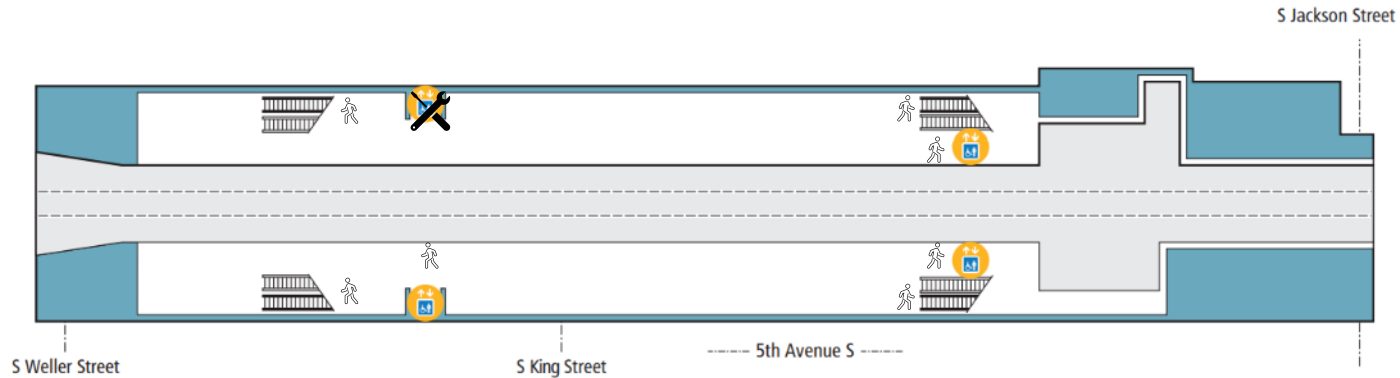
Int'l District/
Chinatown Station: Platform



Passenger Focused Modernization

September 2024 - South End Elevators / Jack Replacements Elevator 904

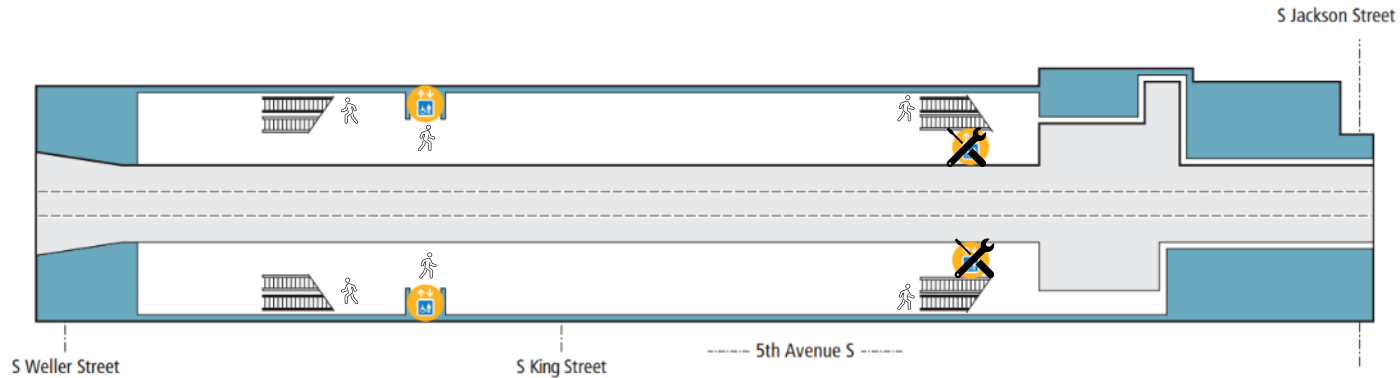
Int'l District/
Chinatown Station: Platform



Passenger Focused Modernization

Oct 2024 Elevators are First Priority / Starting with Both North End Elevators

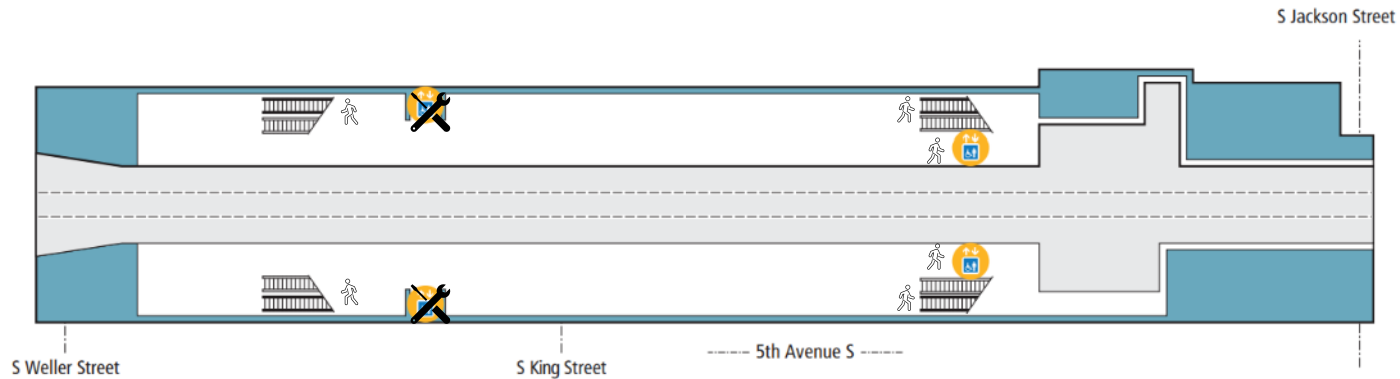
Int'l District/
Chinatown Station: Platform



Passenger Focused Modernization

South End Elevators to be Modernized Upon North End Elevators Returning to Service

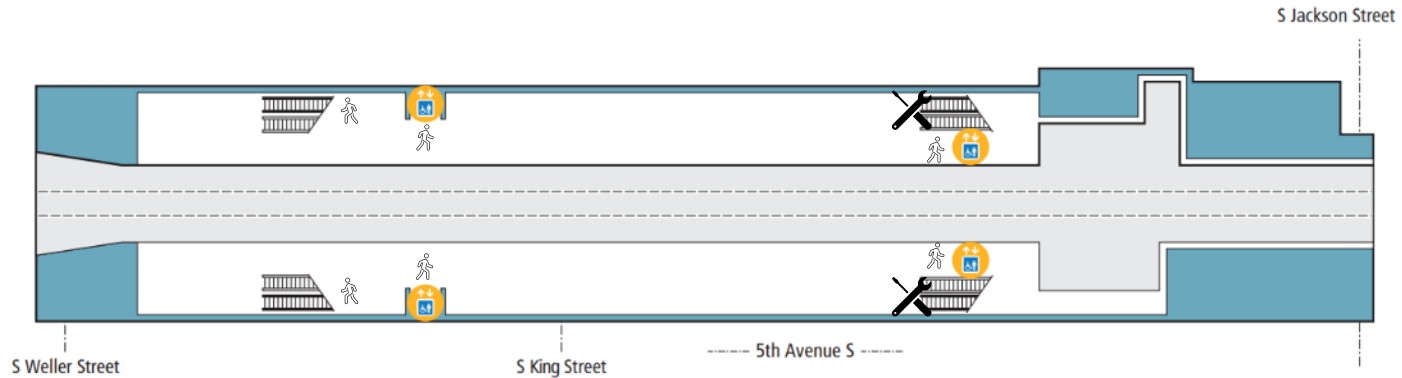
Int'l District/
Chinatown Station: Platform



Passenger Focused Modernization

North End Escalator Work to Begin Upon South End Elevators Returning to Service

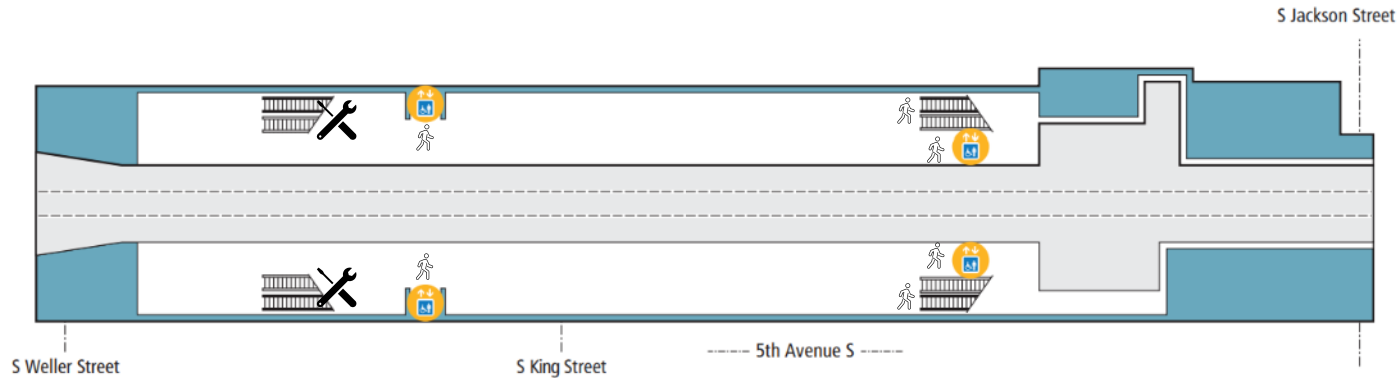
Int'l District/
Chinatown Station: Platform



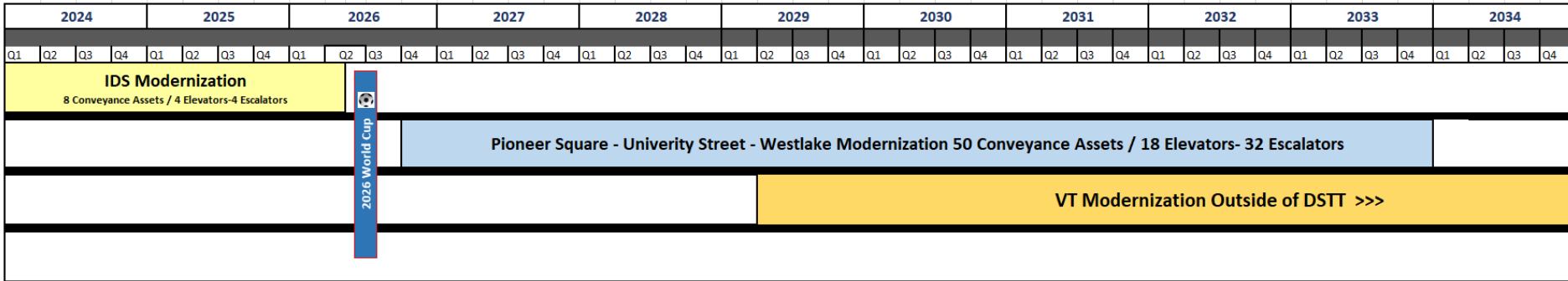
Passenger Focused Modernization

South End Escalator Work to Begin Upon North End Escalators Returning to Service

**Int'l District/
Chinatown Station: Platform**



10 Year Estimated Modernization Timeline



- Tentatively scheduled to complete all downtown tunnel modernizations by 2033
- Scheduled to begin VT modernizations outside of the downtown tunnel stations in 2029

Thank you.



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