

Vertical Conveyances

Program Update

10/1/20

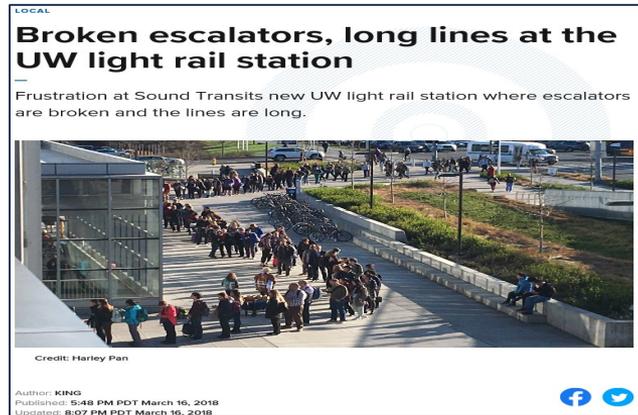
Why we are here

- This presentation is provided for information only
- Provide update on Elevator and Escalator management progress and availability
- Provide update on estimated costs & go forward Program structure

How we got here

Significant Escalator Outage at UW March 2018 & other extensive asset outages

- Negative Passenger experiences & public perception

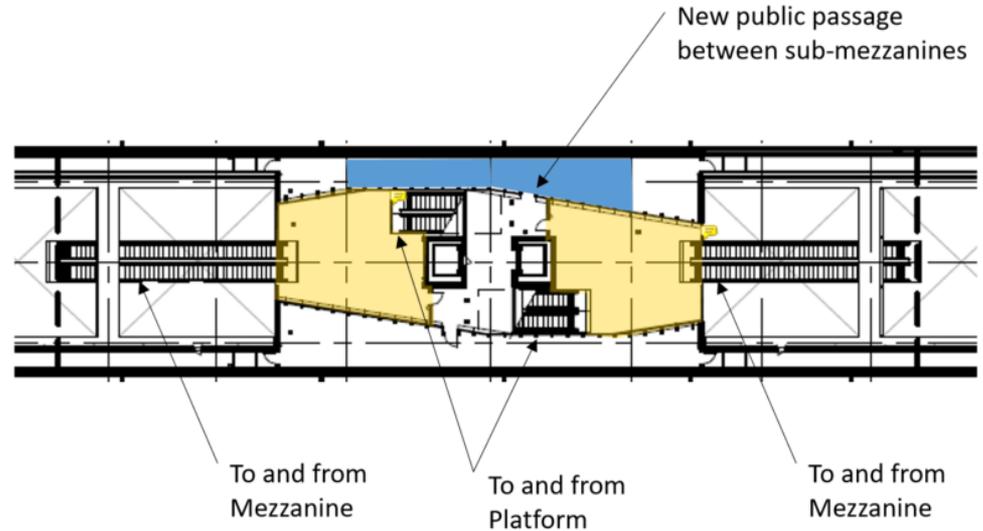


“Our Passengers deserve a better experience.”

Recent work completed

2020– UWS Cross Mezzanine Access Completed

June 2020– UWS Escalator Assessment and Replacement Pre Design Work Completed



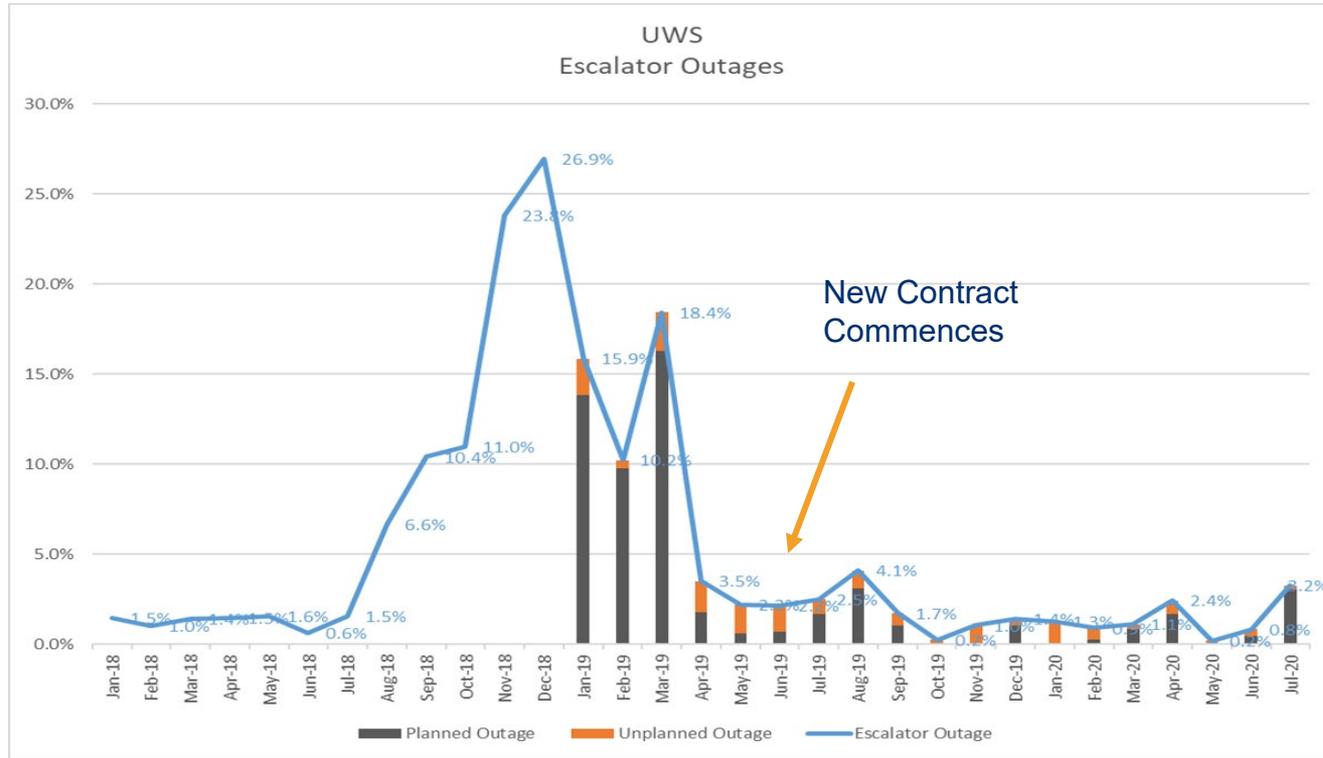
Recent work completed



*March 2019 –
UWS Back Stairs
Open to the
Public*

*June 2019 – UWS
Enhanced
Maintenance
Contract Instituted*

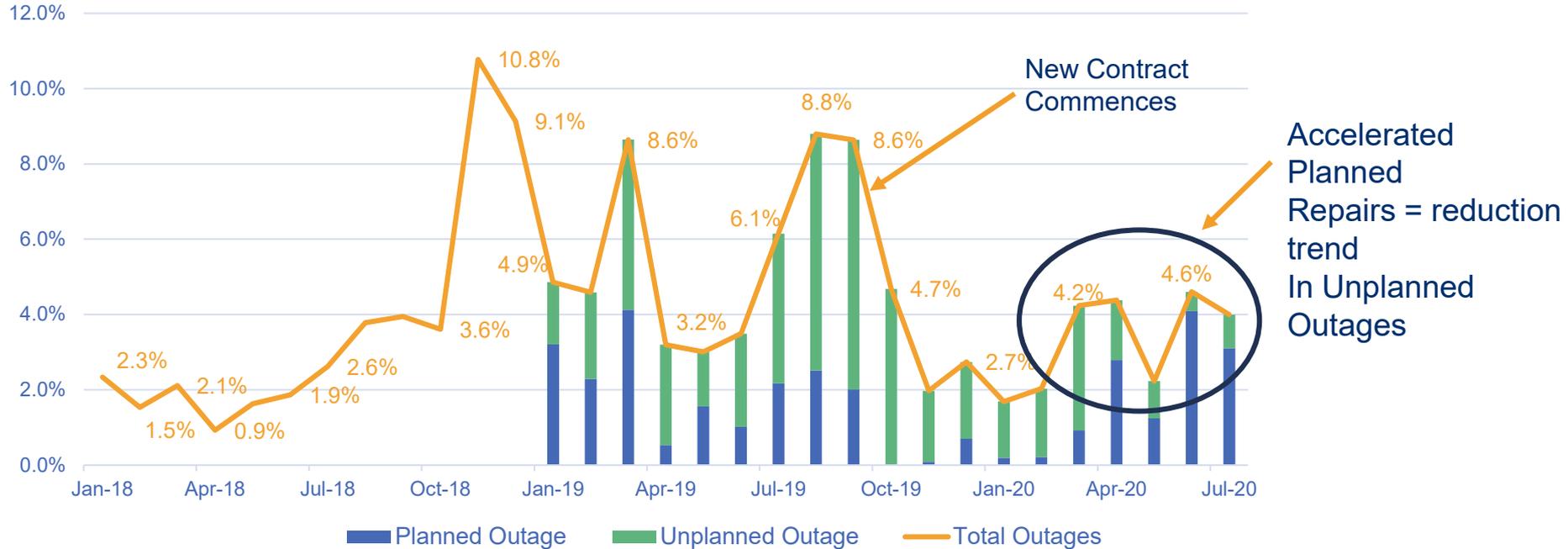
UWS Availability Performance



Stabilization
Enables Pause
&
Reprioritization

Availability Performance

Link Stations (ex. DSTT)
Total Elevator & Escalator Outages



Elevator Availability

Link Station Elevators for August YTD 2020

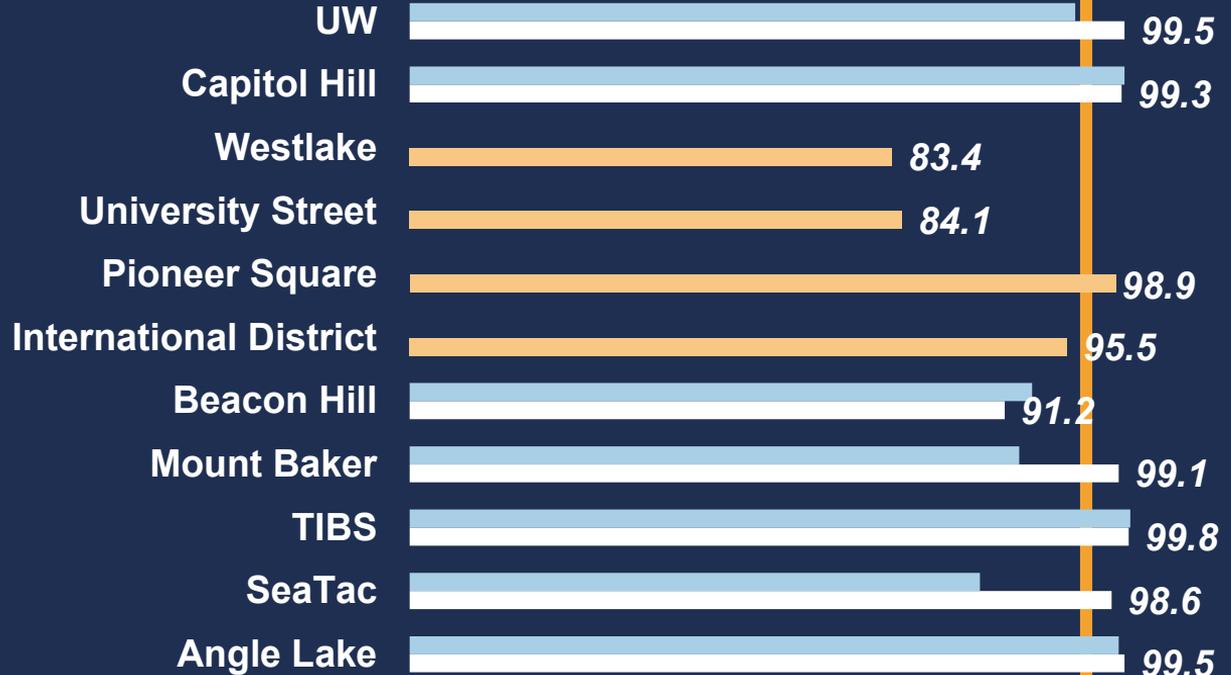
(including DSTT Stations)

Target 97%



Elevators

2019 Dec YTD
2020 Aug YTD



DSTT Stations: data available since Oct 2019

50 55 60 65 70 75 80 85 90 95 100

Escalator Availability

Link Station Escalators for August YTD 2020

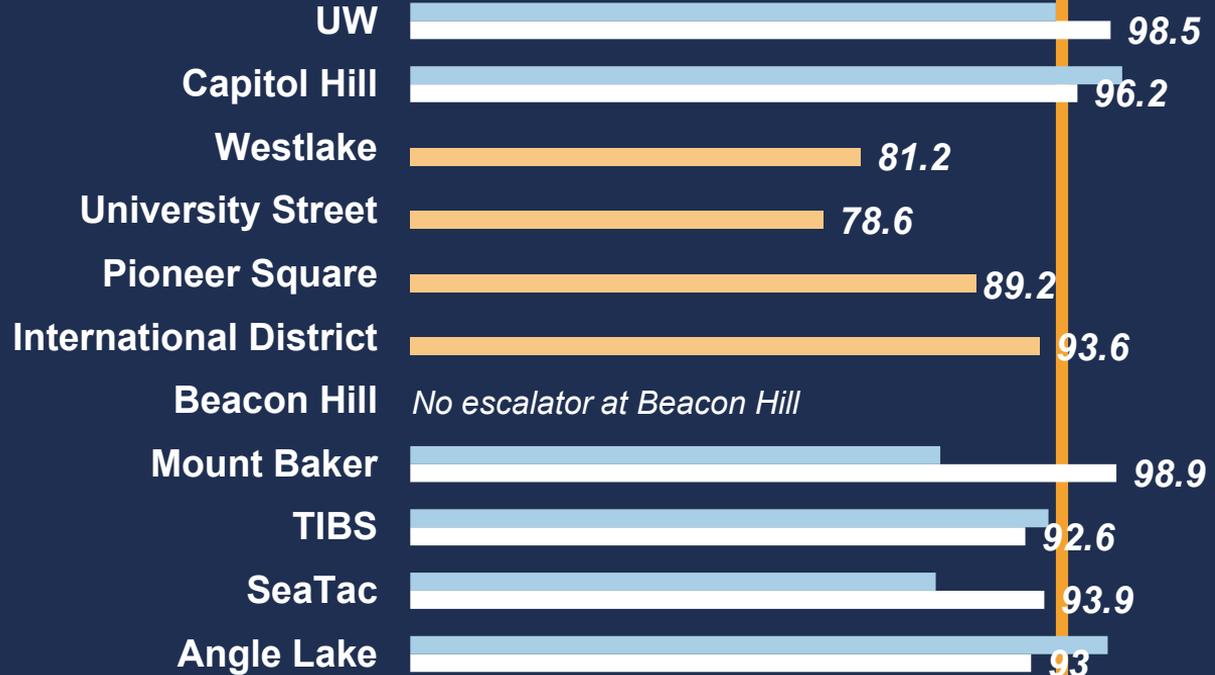
(including DSTT Stations)

Target 95%



Escalators

2019 Dec YTD
2020 Aug YTD



DSTT Stations: data available since Oct 2019

50 55 60 65 70 75 80 85 90 95 100

Lessons learned

Elevators and Escalators are a critical part of the Passenger journey

- UW – we were able to stabilize through a combination of efforts and can defer near term replacement
- Need Increased Data Gathering Capabilities
- Need Asset Management Processes & Portfolio Strategy
- Need Dedicated Resources to Manage a System-Wide Program

Program Progress

Performance stabilization achieved at most locations due to the following completed actions:

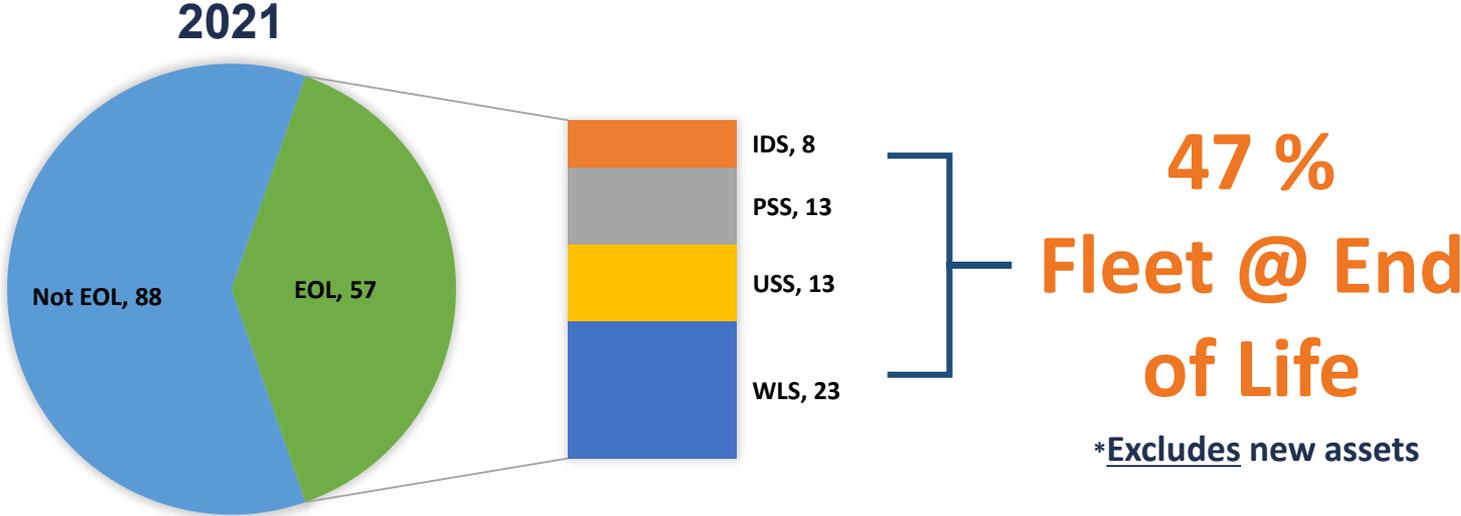
- Implemented Mitigation Plan for UW
- Dedicated Elevator/Escalator Lead,
- Changed The Maintenance Vendor & Contract Language
- Enhanced Performance Tracking & Reporting
- Updated New Equipment Specifications
- Better Passenger Communications
- Piloting Technology Innovations

Downtown Seattle Transit Tunnel

- Anticipate taking ownership from King County Metro in 2021
- Receiving 36 escalators and 22 elevators, most conveyances are beyond useful service life
- As of today, there are 12 escalators currently out of service in the DSTT
- Estimated \$8.7M for deferred elevator and escalator maintenance repairs (2021 budget request)
- Currently generating a multi-year capital replacement plan to address DSTT conveyances

Fleet Aging Analysis

Useful Life of Transit Elevators and Escalators is estimated at 25 Years

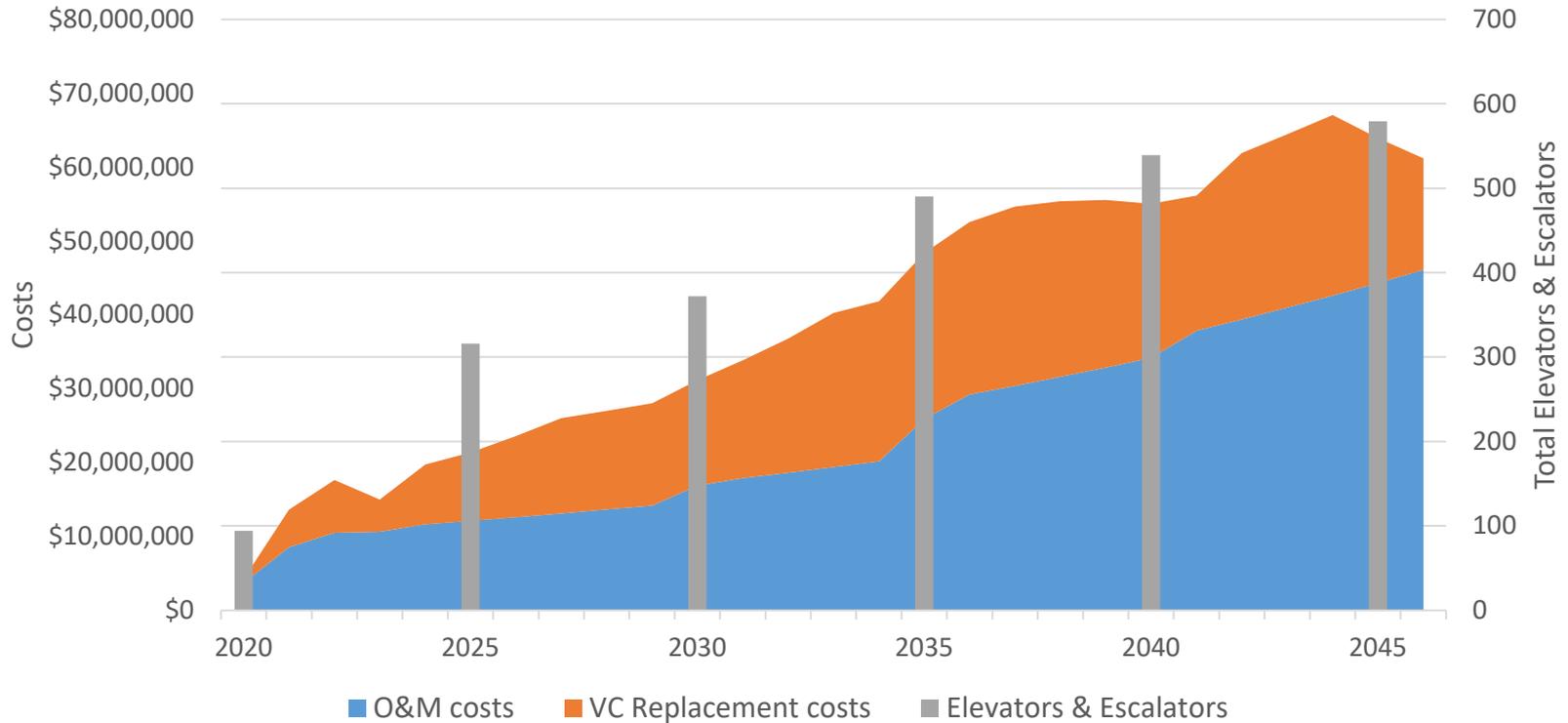


Fleet Aging Mix – Short Term



Note the large proportion of **End of Life (EOL)** as well as **New Commissioned Assets**. This demands proactive Long Term planning and heightened oversight to ensure stable performance.

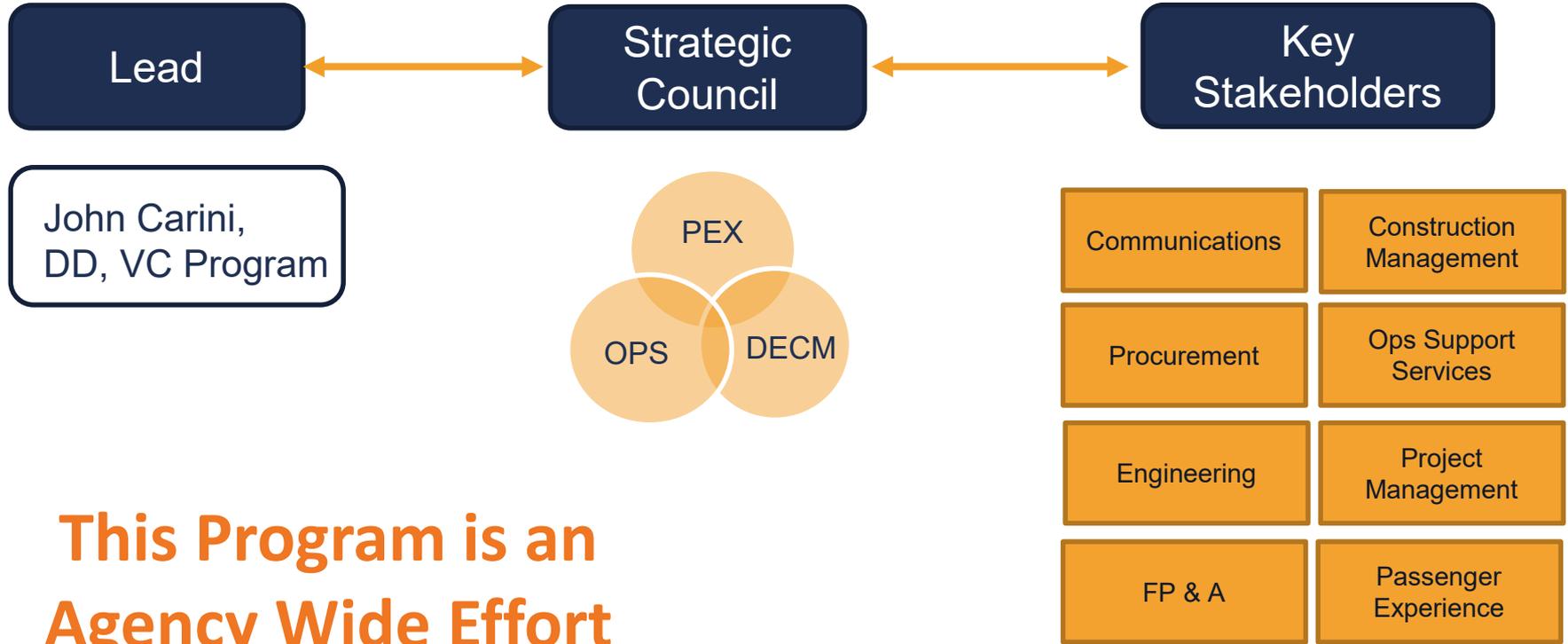
Estimated Annual Cost Projections



Conveyance Team Vision Statement

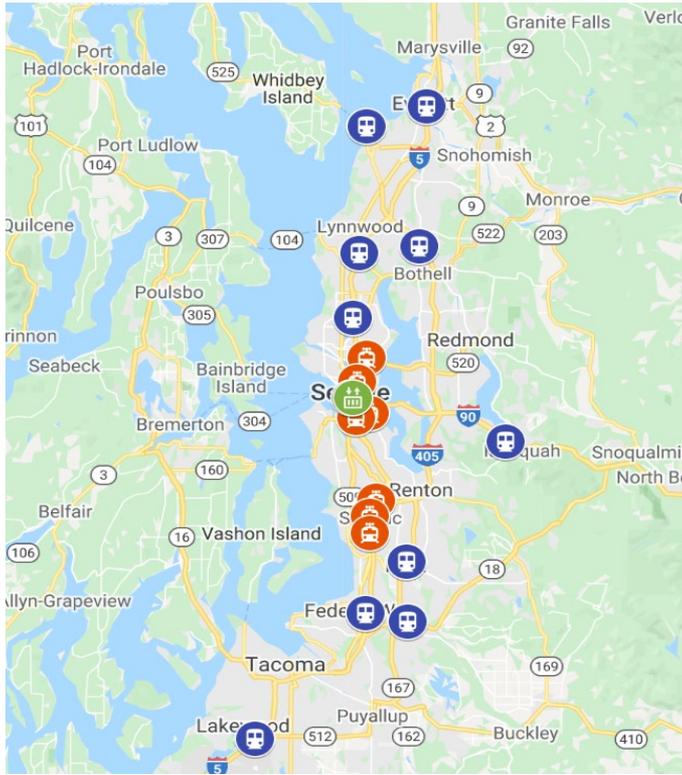
Create a **PASSENGER** focused vertical conveyance program centered on **SAFETY** and **RELIABILITY** by leveraging maintenance, technology & data to optimize performance and keep all stakeholders better informed.

Vertical Conveyance Team

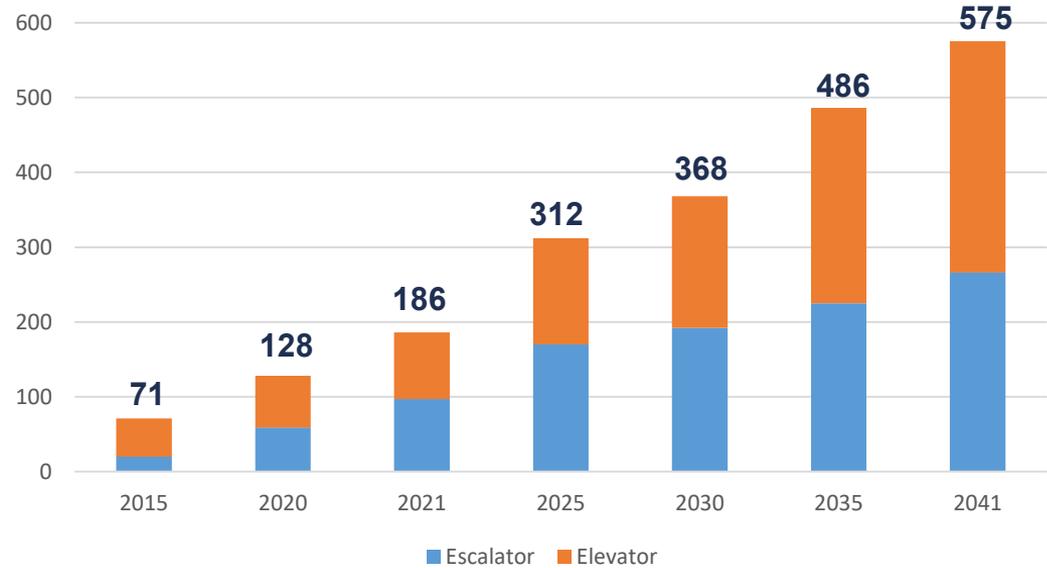


This Program is an Agency Wide Effort

Vertical Conveyance Portfolio



Spans from Everett to Lakewood – 70 Miles



- Current fleet will grow by 2.5X through 2025
- Estimated to be a fleet of 575 by 2041
- Long term strategy is essential

Work ahead of us...

- Achieve System Wide Conveyance Availability Target: 95% & Minimize ADA & Passenger Impacts
- Address stations that don't have back up elevators or egress options for all Passengers
- Enhance performance measures, tracking & reporting

Work ahead of us

- Optimization of Portfolio Useful life & Total Cost of Ownership
- Data Driven Program Management
- The VC Work Plan is in Development and underway, comprised of the following steps:



Thank you.



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