



# BUILDING PROGRESS

Paratransit Fleet Electrification - Update Report

Transportation Authority Board

Vehicle Procurement

Charging Infrastructure

Maintenance  
and Storage

Funding

Risks

As part of the allocation request for Paratransit Vehicles the SFCTA Board requested that the SFMTA provide an update on the plan for the **transition of paratransit vehicles.**

Paratransit is integrated into the SFMTA's larger plan to move toward an **entire electric transit fleet. Updates will be on-going.**

State of Good Repair

Modernize aging SFMTA facilities in order to meet the needs of everyone who travels in San Francisco.

Resiliency

Improve the transportation system's resiliency to seismic events, climate change, technology changes.

Community

Make the SFMTA a better neighbor in the parts of the city that currently host our facilities.

Started in 2017, the **Building Progress Program** is a **\$2+ billion** planning and capital program that continues to lead in innovative project delivery, adaptability, resilient planning and community outreach.



Kirkland Yard  
Electrification

Woods Yard Pilot  
Phase II (12 BEB  
Chargers)

Islais Creek Pilot  
Phase I (6 BEB  
Chargers)

Presidio Yard  
Modernization

Paratransit  
Electrification

The **Electrification Program** readies the SFMTA for transition to Zero-Emission vehicles including Paratransit EVs.

- Reviewing fleet requirements.
- Complying with regulatory conversion schedule.

The objective of the paratransit fleet program is to provide a clean, reliable and safe transportation experience for seniors and people with disabilities while **reducing vehicle emissions by transitioning to zero-emission fleet.**

- The prior allocation request funded the replacement of 17 gas powered vans.
- It also included 1 electric van that would support testing.



# The Paratransit Fleet includes 132 vehicles.

The current fleet consists of 111 cutaway vans and 21 minivans, which have useful lives of 5 years and 4 years, respectively.

Innovative Clean Transit (ICT) regulation requires vehicles to be made electric with a gross vehicle weight greater than 14,000 pounds.

Fleet Evaluation (as of Sept 2023)

- 43 Transit 350HD Commute *not required*
- **68 Ford E450 Universal** *required*
- 21 Dodge Caravan Minivan *not required*

While not required, the SFMTA will pursue evaluating the ability to electrify the entire fleet.





# Over the past year, the SFMTA has been testing/evaluating various vehicles.

Fleet Evaluation (as of Sept 2023)

## Turtle Top - Tested

*Evaluation shows that the traction motor sits too low overall and scrapes the pavement in hilly operational conditions.*

## Ford EV – Tested

*Evaluation shows that there is insufficient wheelchair capacity; in addition, vehicle components also sit too low and scrapes pavement in hilly operational conditions.*

## Lightening ZEV-3 – Currently being evaluated

Current risks are operational viability and price per vehicle.

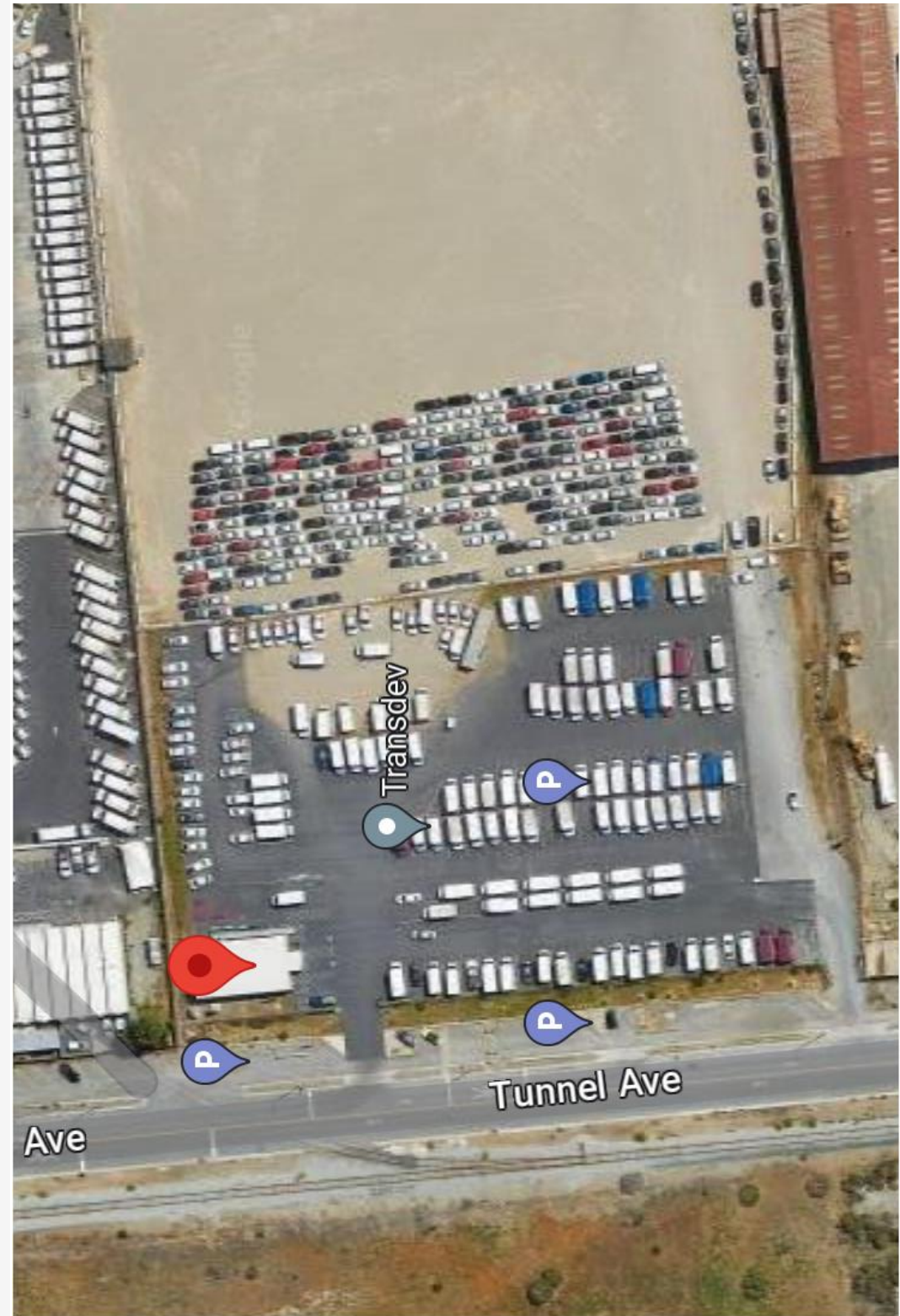
In February 2022, the SFMTA completed its **Battery Electric Bus Facilities Master Plan**.

- Baselined projects and sequencing for charging infrastructure.
- Preliminarily identified power requirements.
- Schedule based on current aggressive regulatory requirements; currently in review.



One of the key risks identified is finally securing a **permanent fixed facility** for Paratransit, which currently operates out of various leased facilities.

- 250B Industrial Way, Brisbane (Non-Revenue & Revenue Vehicle Storage)
- 290 Industrial Way, Brisbane (Maintenance & Parts)
- 150 Executive Park #3200, Brisbane (Administration, Reservations, Dispatch)
- 575 Tunnel Ave, Brisbane (Operations, Support, Vehicle Storage)



Electrification Program Sites

Permanent Facility Options

Potrero Yard  
(currently being analyzed)

Presidio Yard  
(currently being analyzed)

Woods Yard  
(Recommended in 2017 Facilities Framework)

A key component of the Building Progress Program is maximizing each of the SFMTA’s individual sites.

SFMTA is currently reviewing **project sequencing and fleet timing**. We have developed **programmatic requirements for a permanent electric Paratransit Facility**.

Risks include:

- Power/Load Requirements
- On and Offsite Infrastructure
- PG&E Capacity and Timing
- Funding

## Aggressive grant procurement and capital **funding advocacy will be required** to advance this program.

- *Cost risks include* facility costs, PG&E capacity costs, increased per vehicle costs. Facility costs are partially mitigated by co-location.
- *Some funding opportunities include* FTA Bus and Bus Facilities Program + FTA Lo-No Emission Vehicles Program, future CCSF GO Bonds.
- Most recently the SFMTA was successful securing approx. \$30 million for pilot charging infrastructure at Woods Yard and Islais Creek Yard.



### **Phase I Feasibility Analysis (0 – 18 months)**

- Paratransit Facility Design Guidelines
- Paratransit Facility Location Analysis
- Paratransit Vehicle Evaluation Test
- Fleet Procurement Sequencing/Facility Requirements
- Regulatory Review
- Schedule
- Development of Funding Strategy

### **Phase II Specification & Program Development (3 – 5 years)**

- Finalize Specifications of Paratransit Vehicle
- Finalize of charge/ load requirements
- Analysis of cost/procurement timeline
- Identify Funding Gaps
- Procurement Schedule
- Pilot Level Facility Upgrades – up to 20% of fleet, based on replacement schedule

### **Phase III Vehicle Procurement & Facility Construction (10 – 15 years)**

- Construct charging infrastructure at permanent facility to meet current and future demand.
- Facility would be required to charge 100% of vehicles, based on specified: vehicles, chargers, load requirements.

# The transition to a zero-emission Paratransit Fleet is integrated in the SFMTA's plans to transform its entire transit fleet.

- The SFMTA has completed the feasibility analysis to integrate Paratransit into its larger and comprehensive facilities capital program (Building Progress) and its fleet procurement program.
- The SFMTA will provide a full and comprehensive update on this consolidated plan to the SFCTA Board as part of the presentation of 5YPP for EP 6 the Muni Maintenance Category and is committed to providing the Board with updates on Phase II and Phase III of this framework on a regular and on-going basis.



An aerial, high-angle photograph of a large train yard or depot. The yard is filled with numerous tracks, each occupied by a train. The trains are primarily white with red accents on the front and sides. They are arranged in long, parallel rows that recede into the distance. The perspective is from directly above, looking down at the tracks. The lighting is bright, suggesting a clear day. In the background, there are some industrial buildings with corrugated metal roofs. The overall scene conveys a sense of organized, large-scale transportation infrastructure.

Thank you.