Perspectives on the Future of Bay Area Express Bus Services

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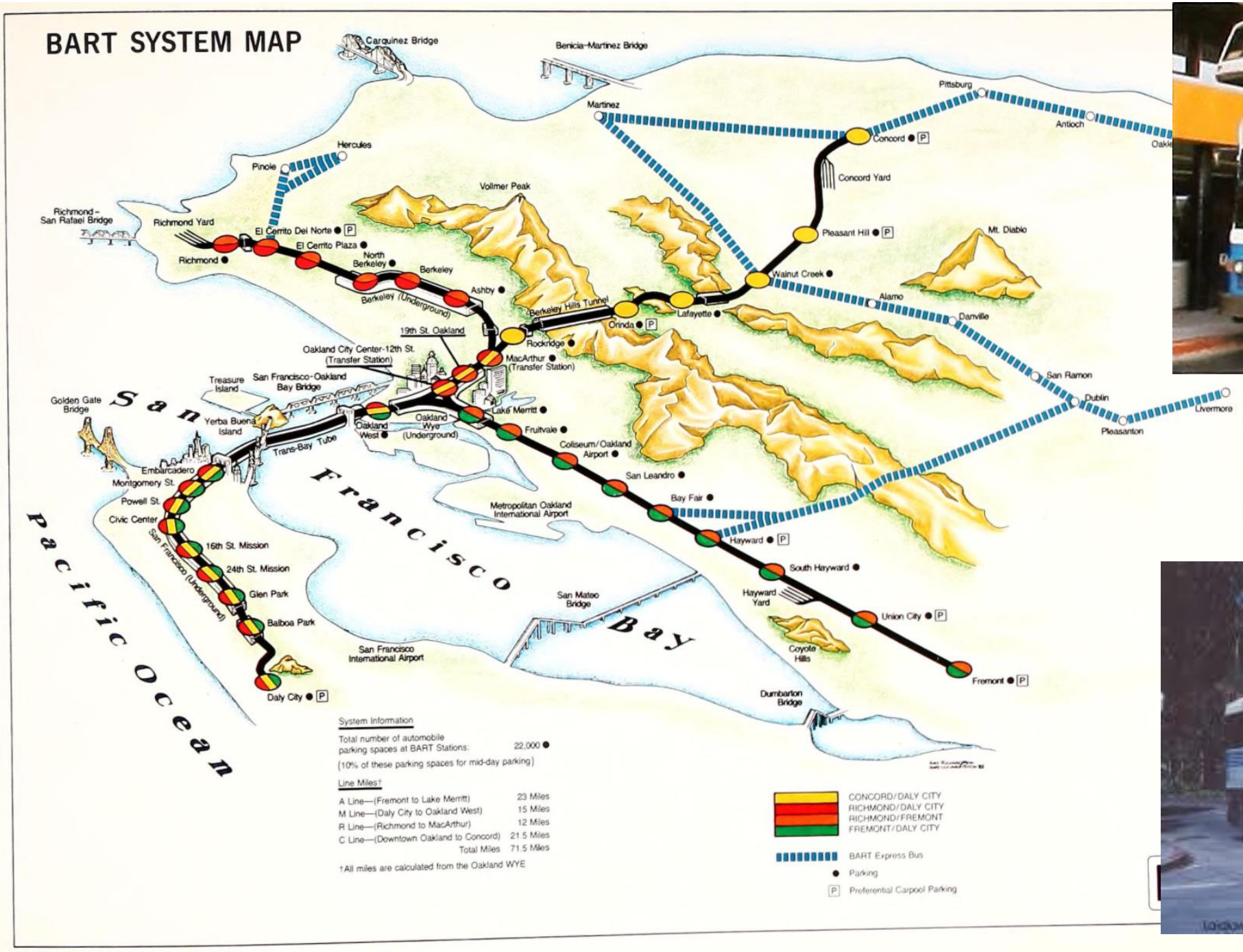
BART SYSTEM MAP



System Information

Total number of automobile parking spaces at BART Stations: 22,000

(10% of these parking spaces for mid-day parking)

Line Miles†

A Line—(Fremont to Lake Merritt)	23 Miles
M Line—(Daly City to Oakland West)	15 Miles
R Line—(Richmond to MacArthur)	12 Miles
C Line—(Downtown Oakland to Concord)	21.5 Miles
Total Miles	71.5 Miles

†All miles are calculated from the Oakland WYE

Laidlaw Bart Express on Coelho at Mooney 5-16-95 photo by Ron Hook

Existing Express Bus Services: Successes and Shortcomings (Pre-COVID)

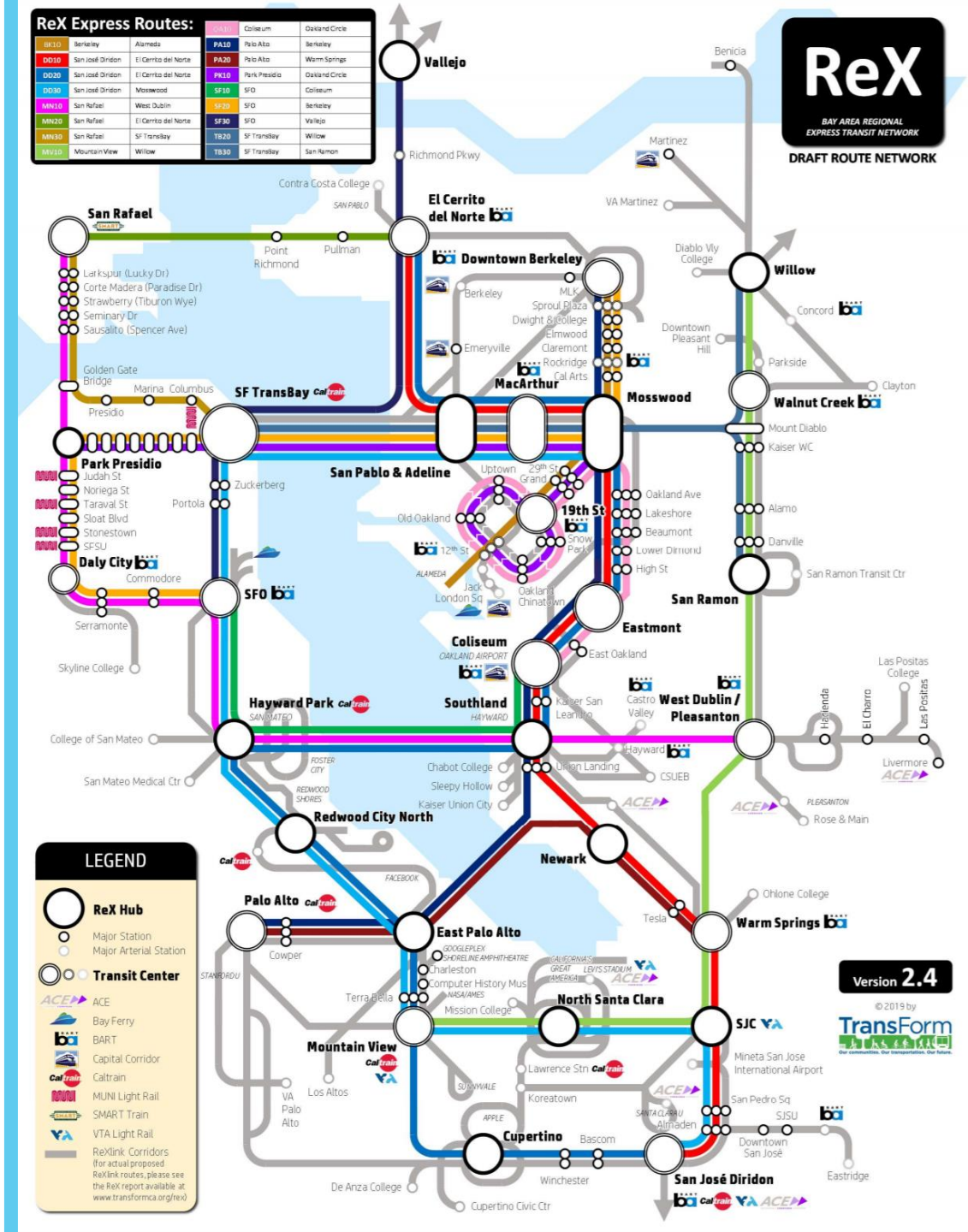
- Mix of different express bus service types:
  - **Peak-period** (e.g., most Golden Gate Transit lines) vs. **all-day services** (e.g., AC Transit Line F)
  - **Primarily running on freeway** (e.g., SolTrans) vs. **mix of local service + express non-stop service** (e.g., most AC Transit Transbay lines)
  - **High-ridership, high farebox recovery lines** vs. **low-ridership "lifeline" lines**
- Different philosophies on how to evolve express bus services:
  - **VTA:** recognizing limited ridership and high cost per passenger, reduce express bus services in favor of more local and rapid services to serve core ridership
  - **SamTrans:** after discontinuing most express routes in Great Recession, start to reinvest in express bus services to provide crowding relief to Caltrain (e.g., SamTrans FCX)
  - **AC Transit:** optimize and invest in existing Transbay lines to reduce travel times
  - **Golden Gate Transit:** experienced rapid growth in operating costs in 2010s; long-term challenges from changing commute patterns and demographics
  - **Private Sector:** corporate shuttles seek to provide illusive "one-seat ride" to Silicon Valley campuses

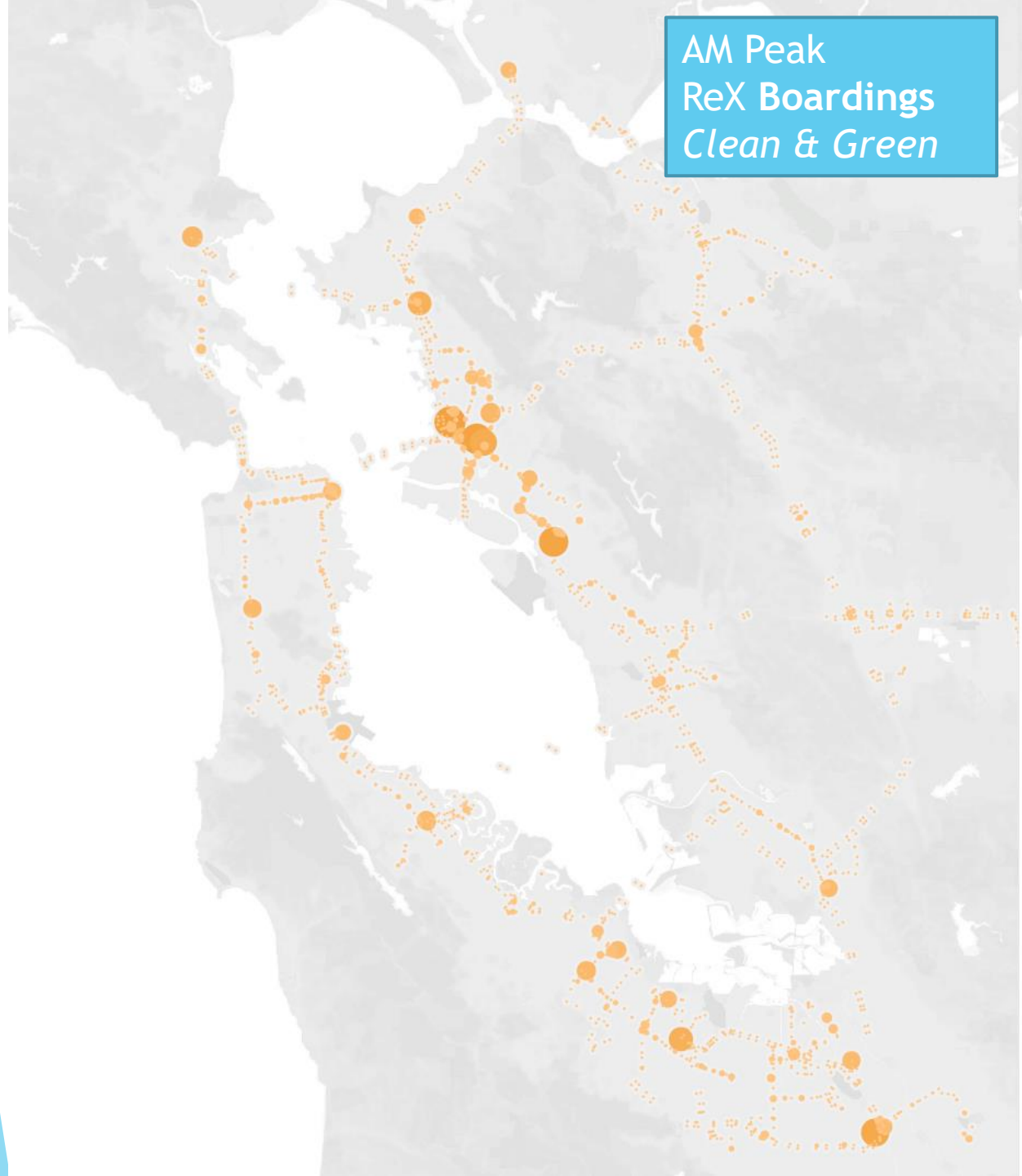
Existing Express Bus Services: Successes and Shortcomings (Pre-COVID)

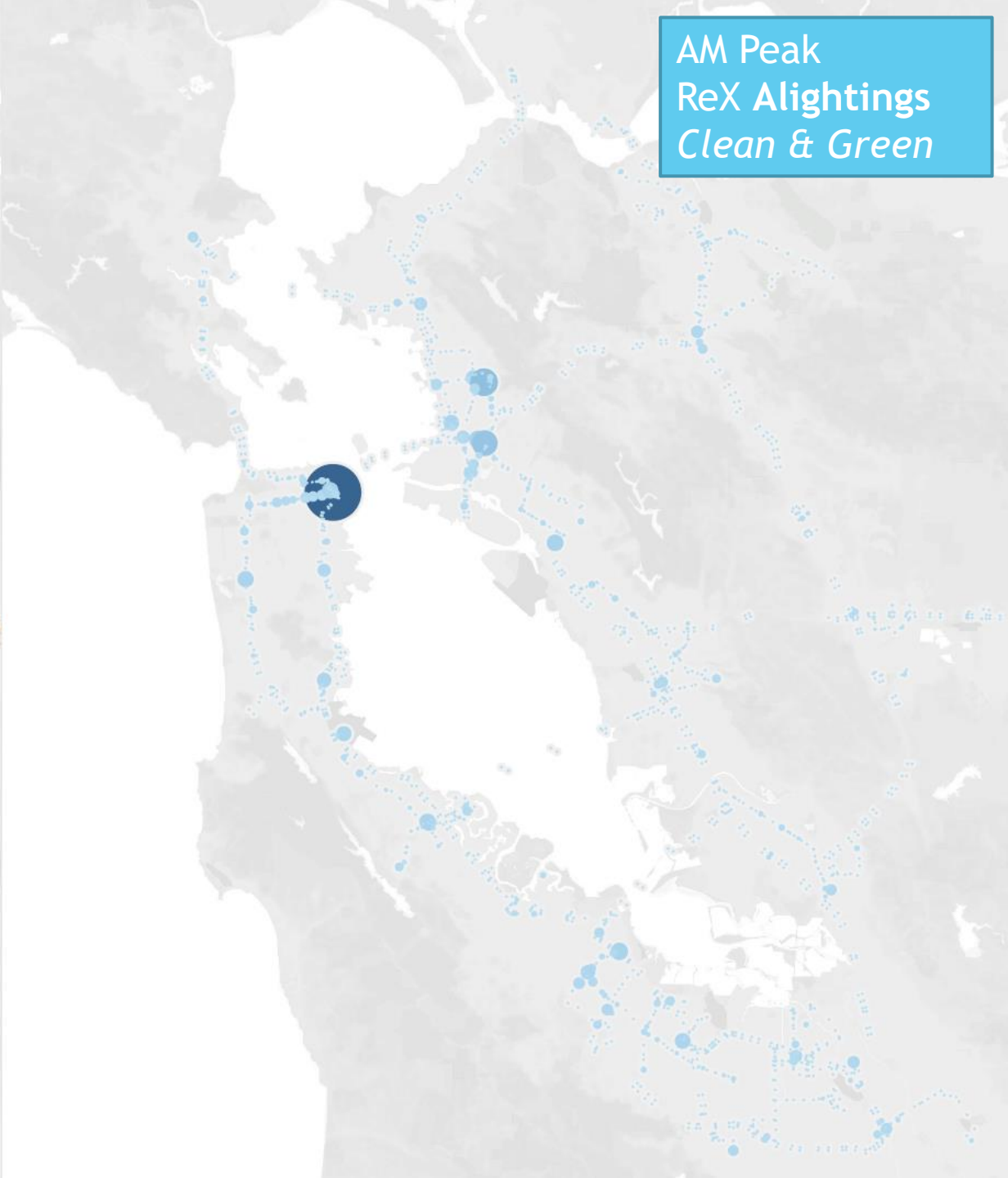
- Demographics of express bus riders compared to transit system as a whole:
  - **Disproportionately non-minority**
  - **Disproportionately higher-income**
  - Likely reflective of a combination of existing fare policies, existing service patterns, and **(most importantly)** trip purposes and destinations
- Express buses are microcosm of regional transit system as a whole:
  - **Network fragmentation**
  - **Lack of schedule coordination at key transfer points**
  - **Lack of fare coordination to reducing burden of transferring between local and regional services**

A Transformative Project, Indeed: ReX

- Regional Express Bus Network (ReX) submitted to MTC/ABAG for consideration as part of MTC/ABAG's Horizon Initiative in 2018
- Evaluated both individually (Project Performance Assessment) and as a package (Futures Round 2)
- Strengths
  - Bold proposal to connect much of the Bay Area with very frequent, high-quality express bus service
  - Focus on seamless timed-transfer hubs to local services
- Weaknesses
  - Capital-intensive elements (bus tunnels in Oakland/Berkeley and western San Francisco)
  - In today's dollars: $19 billion in capital costs, $25 billion in O&M costs
  - Excess focus on one mode as a regional solution; sometimes competed with likely regional rail investments



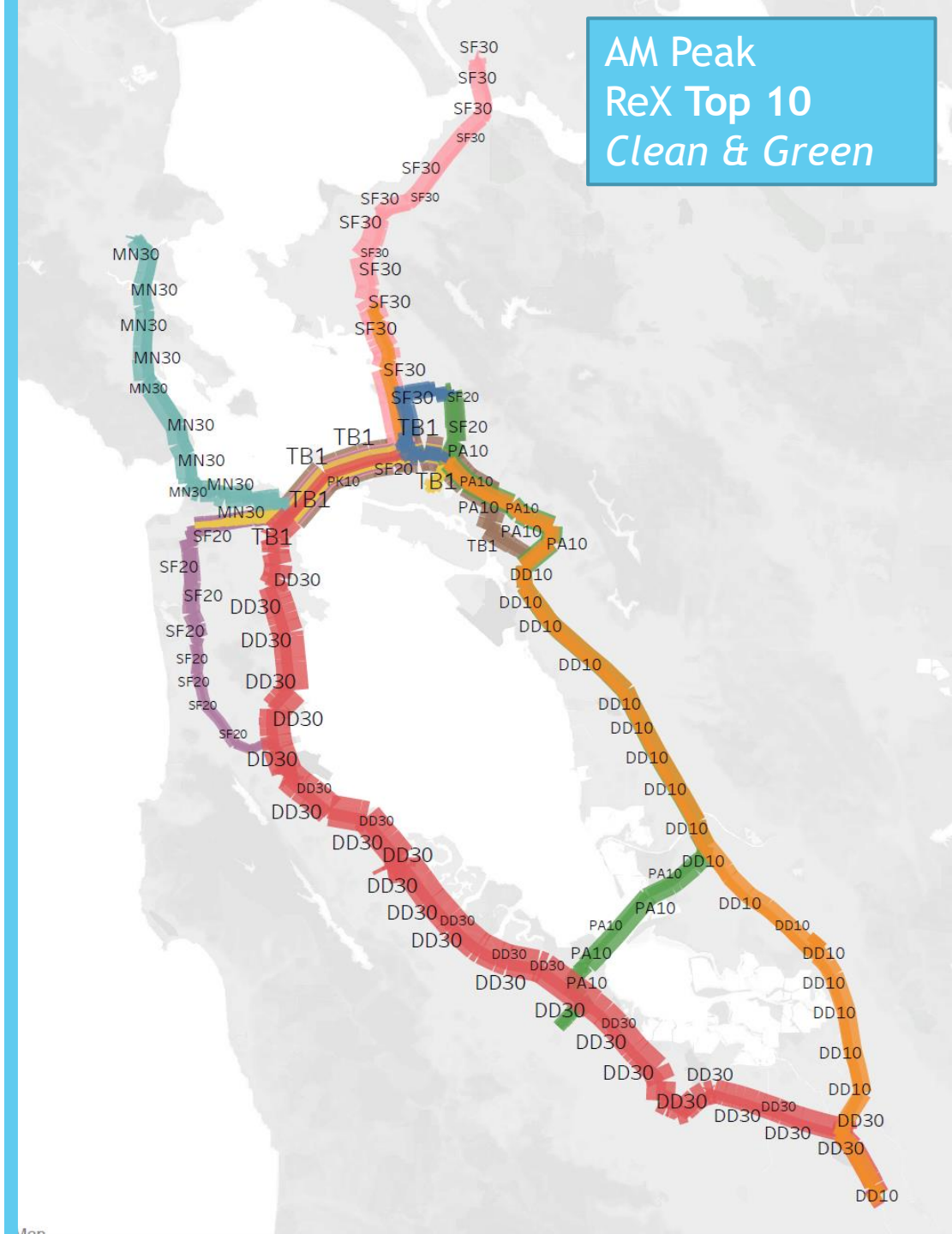

AM Peak
ReX **Boardings**
Clean & Green


AM Peak
ReX **Alightings**
Clean & Green

	Existing Rail Transit	Potential Future Rail Transit	Not Envisioned for Future Rail Transit
Strong Ridership Potential	 *Transbay*  *Peninsula*  *East Bay*	 *Dumbarton*	
Moderate Ridership Potential	 *Oakland*		 *Golden Gate*  *Bridge*
Limited Ridership Potential	 *Tri-Valley*  *Lamorinda*		 *East Bay*  *Bridge*

ReX:
How Did It Perform?

- **Select ReX lines performed quite well and generated significant ridership.**
  - Top 10 highest-ridership routes shown to the right; primarily ringing the Bay in denser parts of region
  - Some of the associated first/last mile shuttles had strong ridership levels (Coliseum, Berkeley, Emeryville); most had negligible ridership though, even with seamless connections
- **ReX lines had a mix of complementary and competitive effects.**
  - Berkeley-SF had synergies with intensified land use; Oakland-SF-San Jose competed with BART/Caltrain
  - ReX reduced AC Transit Transbay boardings by 76%
  - ReX reduced BART boardings on Orange Line by 31% and on Red/Yellow/Green Lines by 10-20% each



ReX:
How Did It Perform?

- **However, when analyzed as a network, the project struggled.**
  - Subset of lines with little-to-no ridership
  - Premium stations throughout network, regardless of demand levels
  - 5-minute headways led to high operating costs; not well-matched to demand on certain corridors
- **Under no circumstances did the benefits of the ReX network exceed the costs.**
  - B/C ratio: 0.3 to 0.7
- **Higher-income travelers benefited more than lower-income travelers.**
  - Equity score: “Challenges Equity” in all Futures

Right-Sizing ReX: Plan Bay Area 2050 Integration

- **Plan Bay Area 2050:** long-range regional plan under development; 35 Final Blueprint Strategies approved in September 2020 for transportation, housing, economy, environment
- **Goal:** integrate the components of ReX that were **most cost-effective & synergistic**, pair with **key equity strategies**, and **integrate with Express Lanes** into Blueprint's 35 cross-cutting strategies
- **Ultimately approved by MTC in July - all pre-2035 investments:**
  - 1 "premium" ReX route from Vallejo to SFO (Green Line)
    - Permanent route intended to address core capacity needs with center-median freeway stations, etc.
  - 2 "basic" ReX routes from Oakland to Redwood City (Red Line) and from SF to San Jose (Blue Line)
    - Services intended to bridge gap until post-2035 investments in Caltrain & Dumbarton GRT

Closing Thoughts

- **Express bus cannot live in a modal silo.** Rather than trying to create an express bus network, it is essential to think about how we can create a frequent transit network, with the right mode in the right corridor. Plan Bay Area 2050's visionary transit network is a first step in this direction, weaving key ReX lines into a portfolio of rail modernization and expansion projects.
- **Simply ensuring some stops are located in low-income and minority communities is insufficient to advance equity with express bus investments.** Without equity policies (like means-based fares and free transfers) and without careful consideration of mobility needs of these residents, investments in express bus corridors could in fact worsen the mobility gap between "haves" and "have-nots".
- **COVID-19 pressed the "reset button" on transit in the Bay Area.** Bold, high-cost visions will likely need to be deferred for at least a few years. Instead, how can we do more with less - with all modes of transport - focusing on the needs of essential workers rather than the needs of white-collar commuters?

To learn more about the 34 other strategies featured in the Plan Bay Area 2050 Final Blueprint:

planbayarea.org