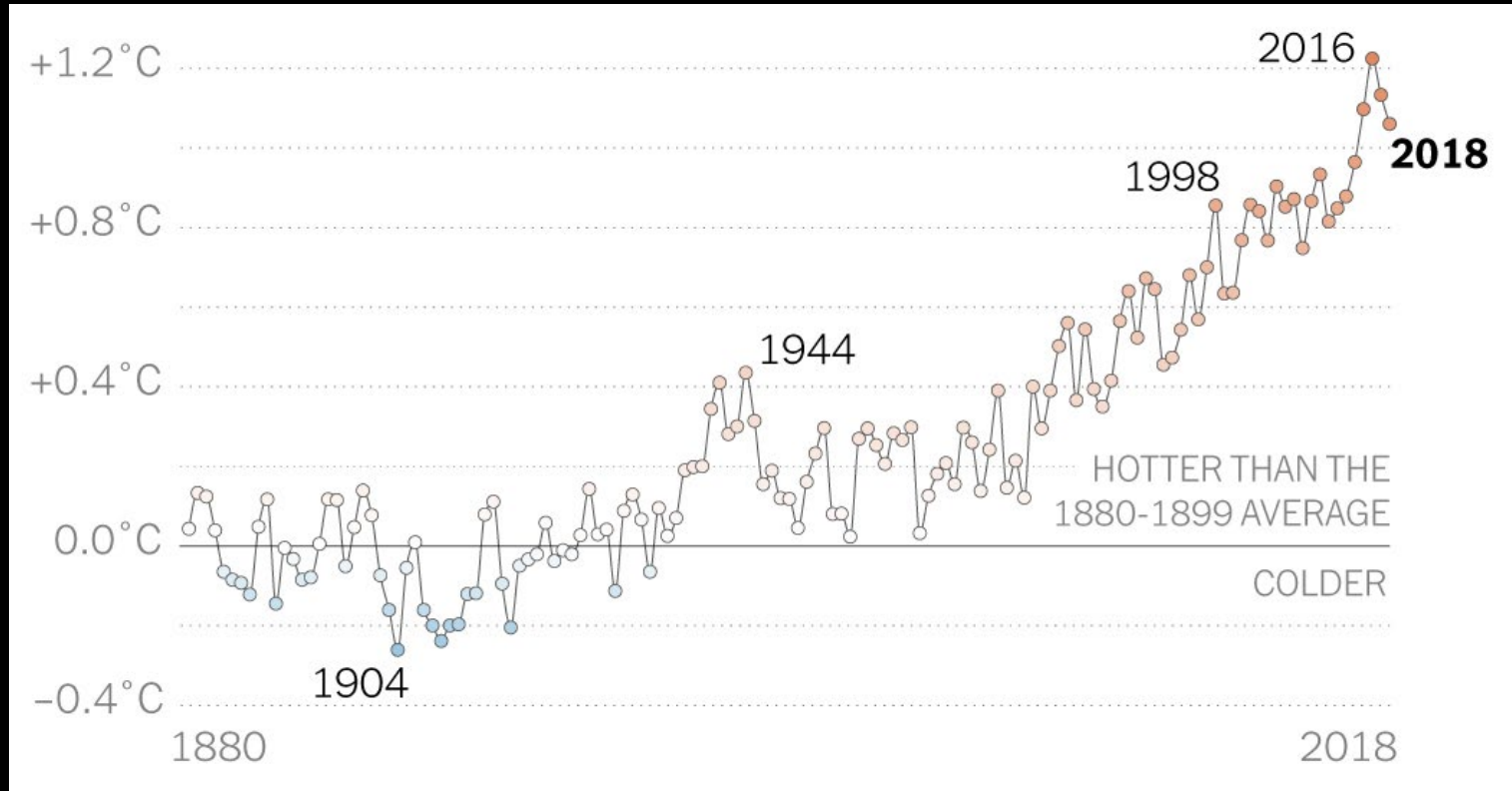


Horizon Transformative Project - Optimized Regional Express Lane + Regional Express Transit Network

WNAC
November 20, 2019



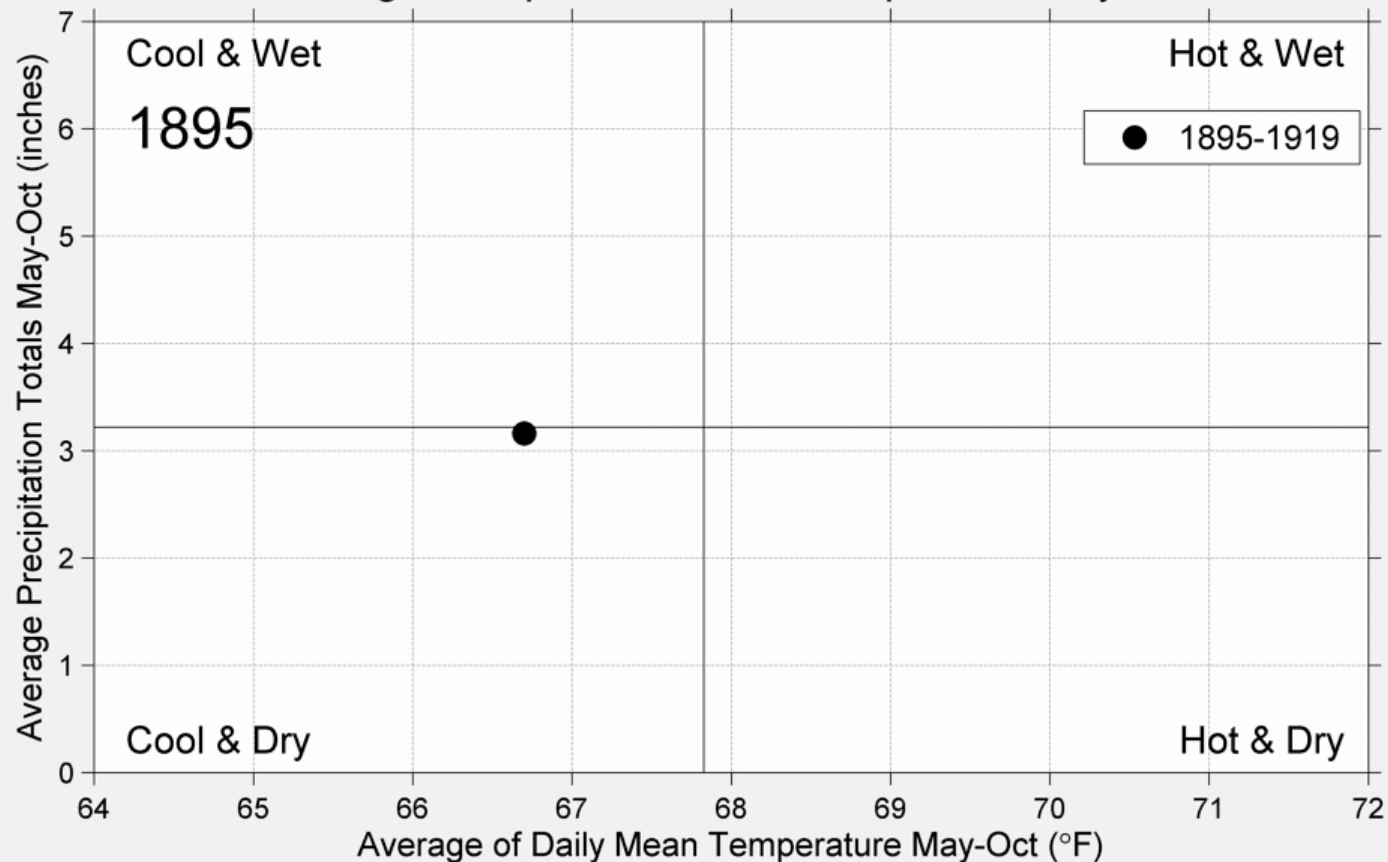
Chris Lepe, Regional Policy Director
TransForm



“The five warmest years in recorded history have been the last five, and that 18 of the 19 warmest years have occurred since 2001.” *It’s Official: 2018 Was the Fourth-Warmest Year on Record*, By JOHN SCHWARTZ and NADJA POPOVICH FEB. 6, 2019

California Fire Season Weather

Average Temperature and Precipitation May-Oct



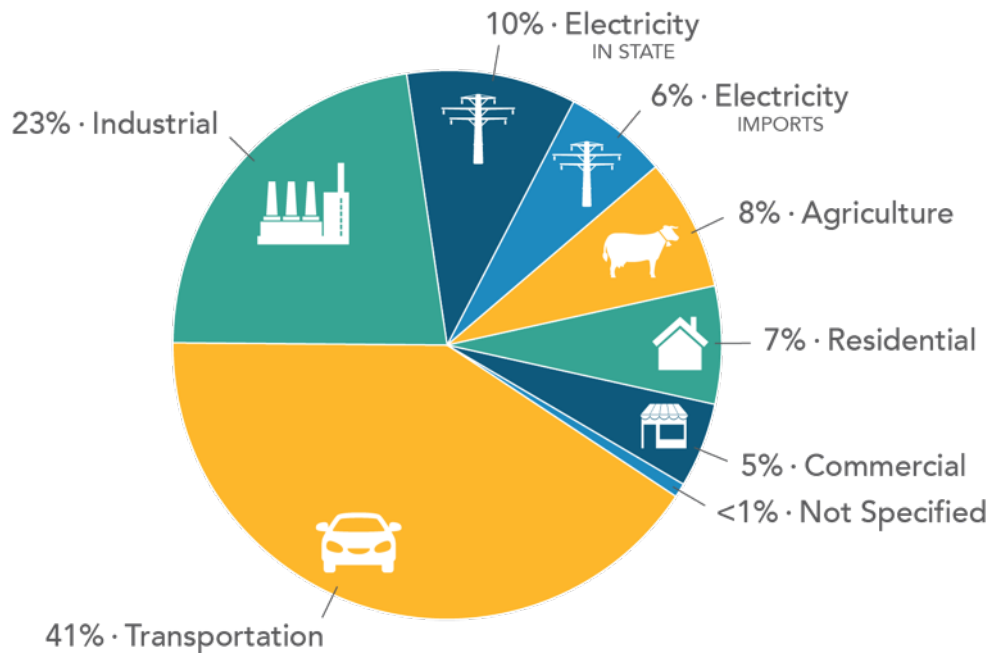
10 Largest Wildfires



10 Most Destructive Wildfires



Transportation is the largest source of Greenhouse Gas in California



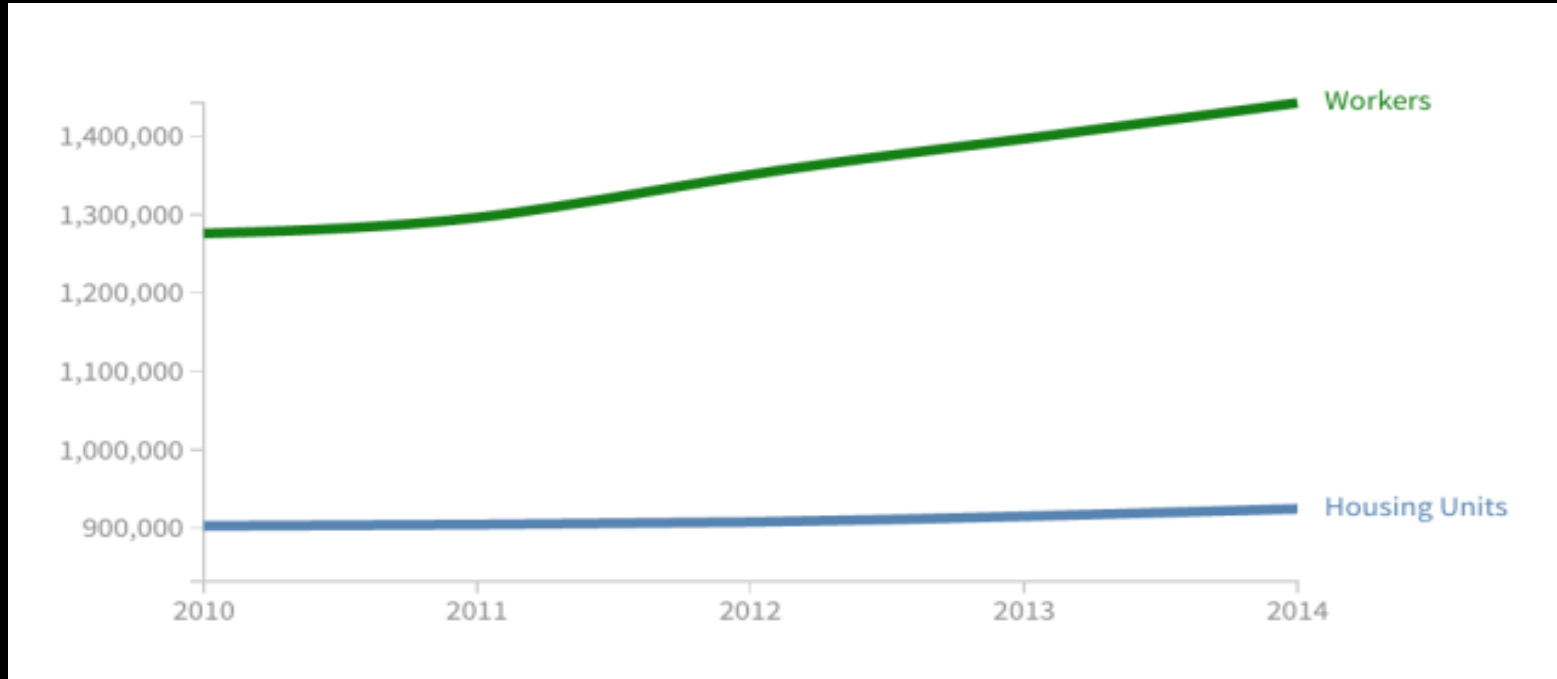
429.4 MMTCO₂e
2016 TOTAL CA EMISSIONS

Source: California Air Resources Board



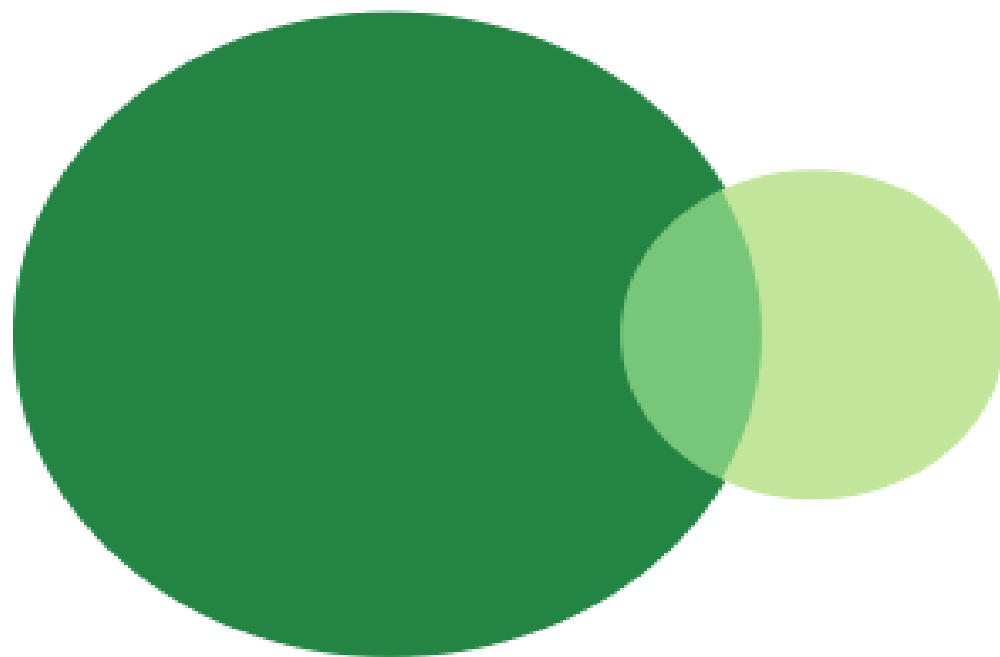
TransForm

Jobs outpacing housing – 7x more jobs than housing units produced between 2010-2014



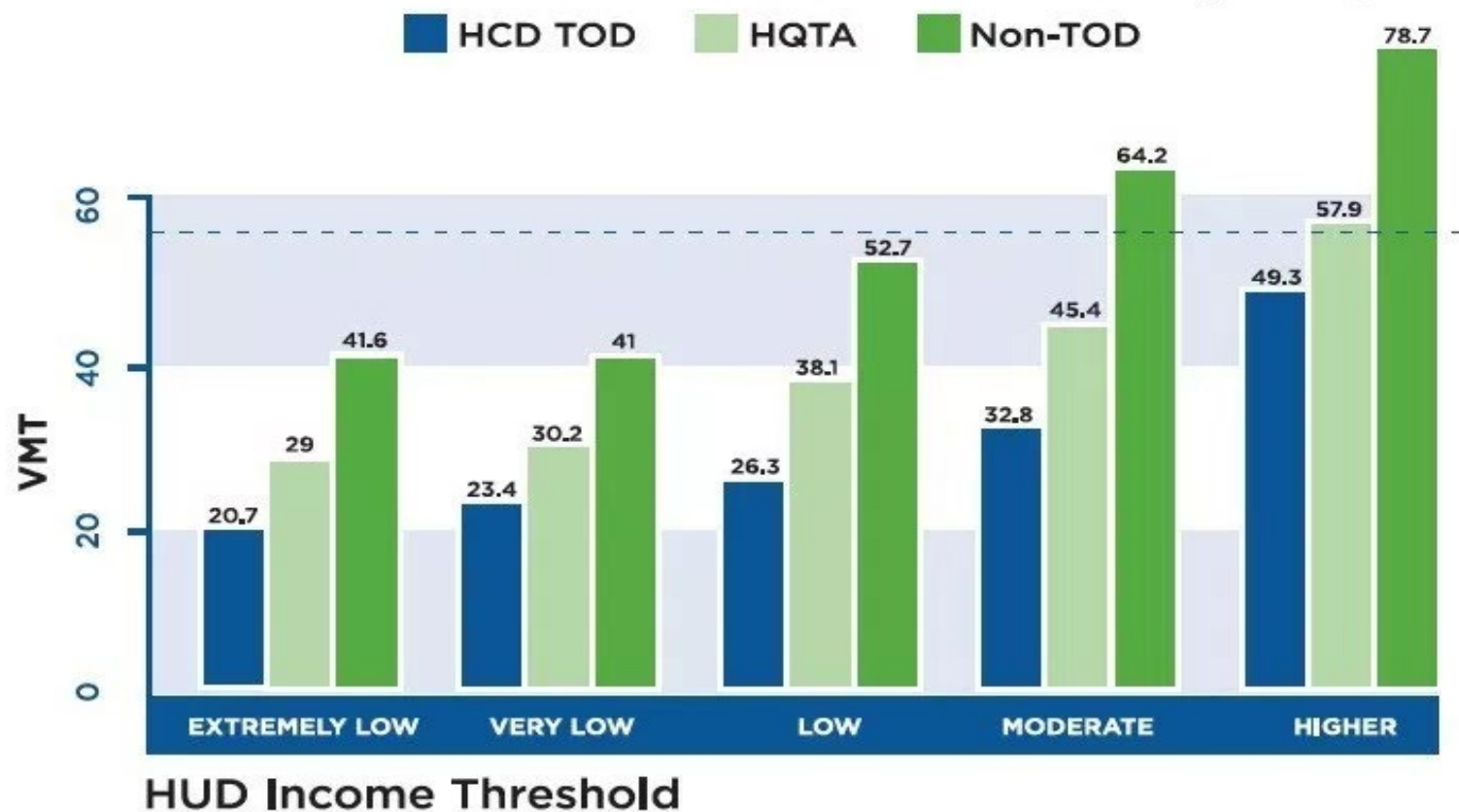
In Search of Cheaper Housing, Silicon Valley Workers Face Long Commutes, Jeff Barrera, Peninsula Press, April 7, 2016

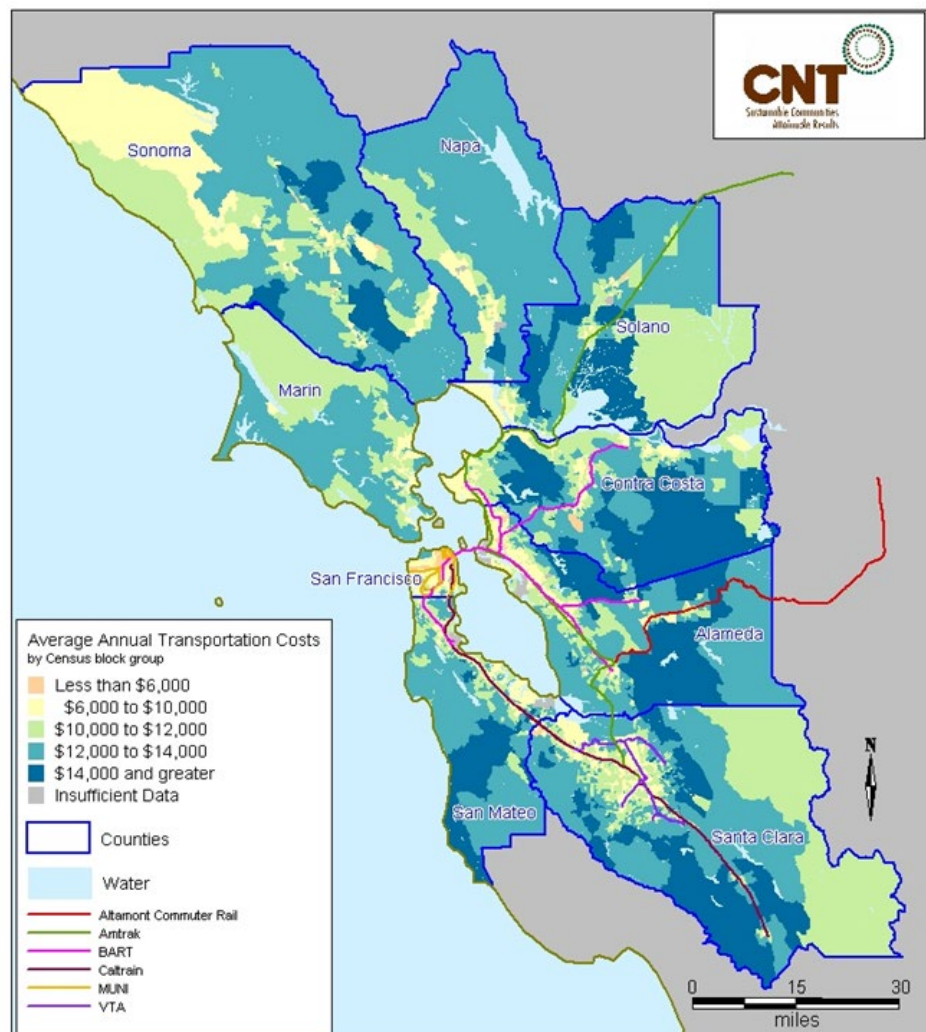
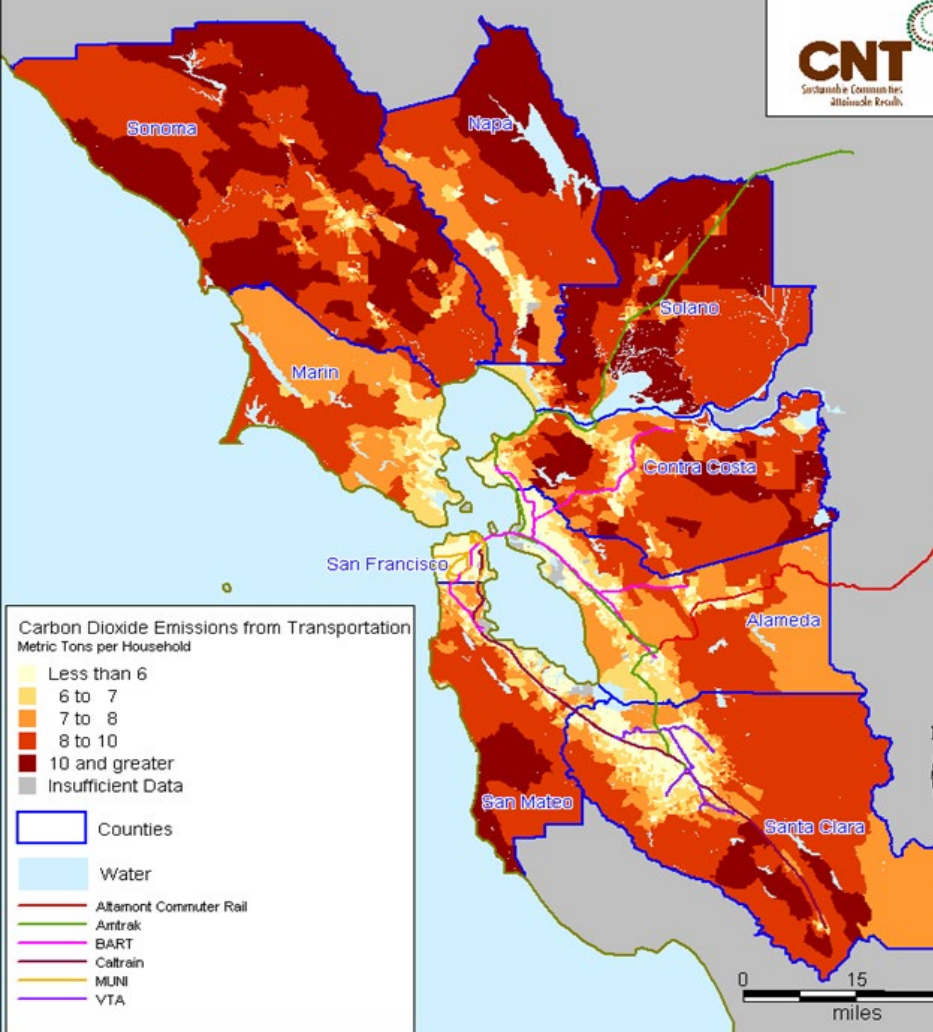
Inflow/Outflow Job Counts in 2011



- 83,988 - Employed in Selection Area, Live Outside
- 15,867 - Live in Selection Area, Employed Outside
- 7,719 - Employed and Live in Selection Area

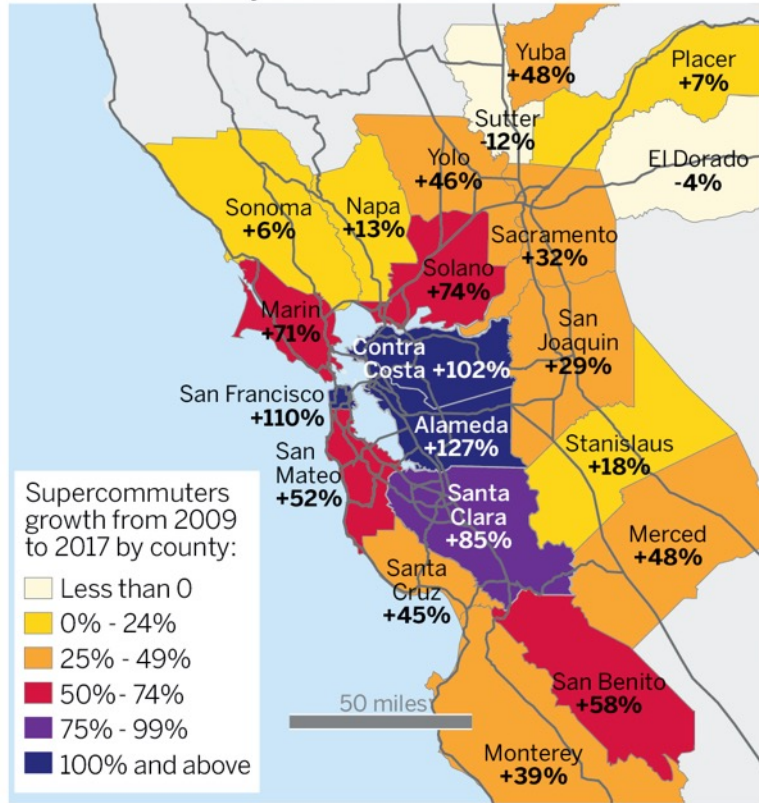
Household Vehicle-Miles Traveled (VMT) per Day





SUPERCOMMUTER BOOM

The number of people with commutes of 90 minutes or more is not just an out-of-town phenomenon; the increase of traffic congestion has made supercommuters of those who live in the heart of the Bay Area.



Source: Apartment List

BAY AREA NEWS GROUP

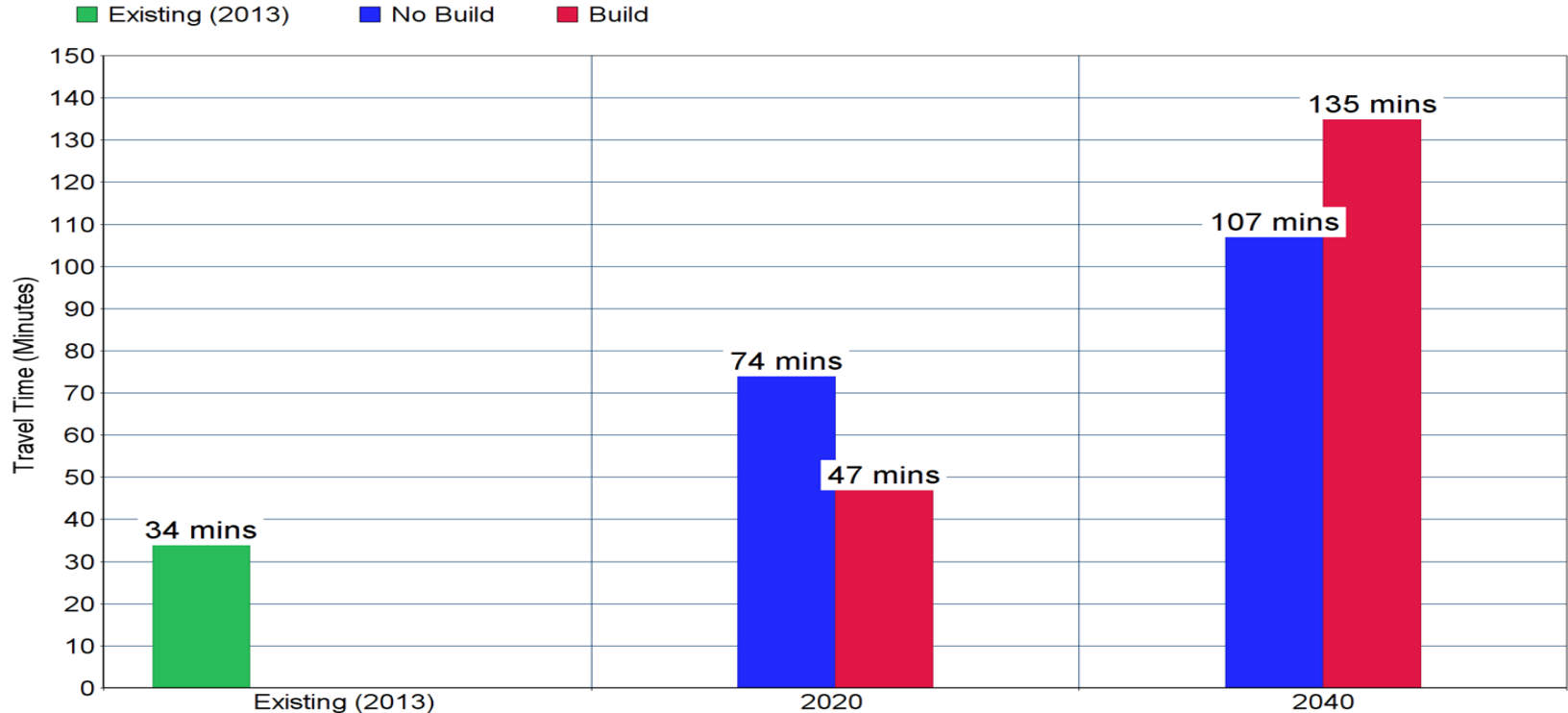
“It’s just cheaper to live out here... But it sucks that it’s a further commute... I don’t have time to exercise or cook meals as often as I would like. So it’s a lot of eating out, which also costs more.”

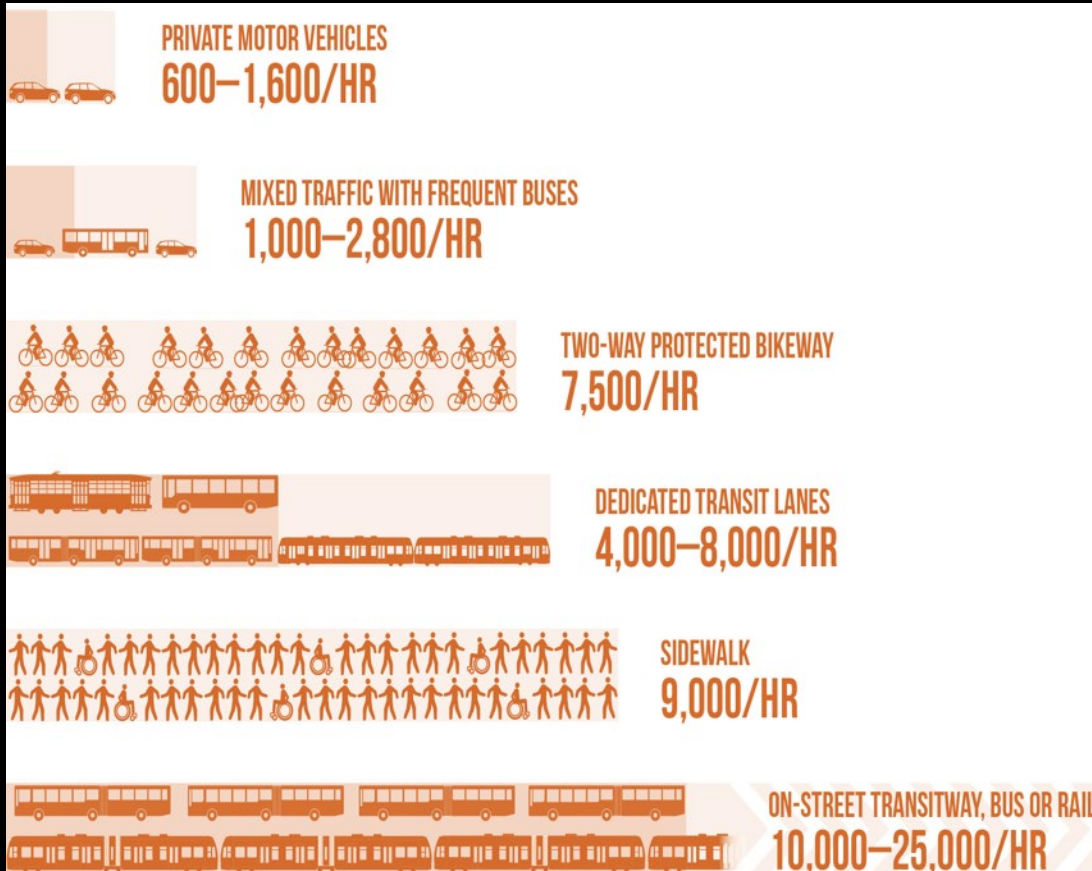
Andrea Aguirre, former Pleasant Hill resident who bought a house in Antioch three years ago and now commutes two hours in each direction to get to her job in San Francisco.

“Bay Area super-commuting growing: Here’s where it’s the worst”, Erin Baldassari, Bay Area News Group, September 11, 2019

2040 Travel Times on US 101 Increase by 2-4x Compared to Today

Figure 1 - Northbound 9:30 AM. San Antonio Rd. to I-380 -- 22.7 miles

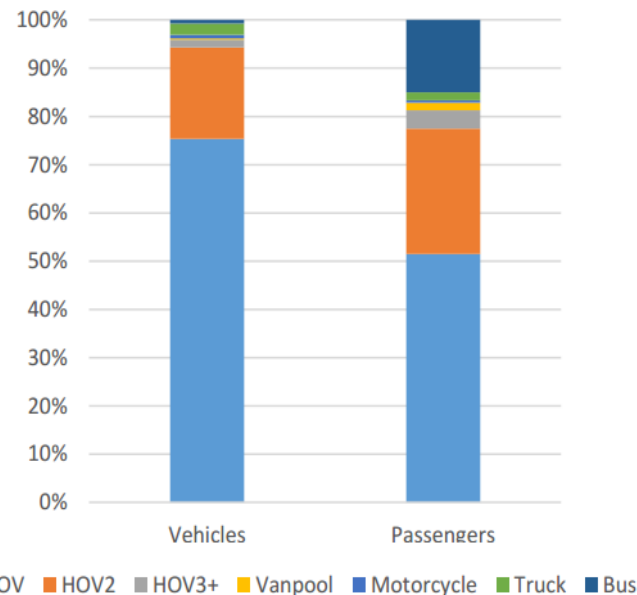




National Association of City Transportation Officials, Transit Street Design Guide

Existing US 101 PM Traffic Data (NB + SB)

Share by Classification & Occupancy

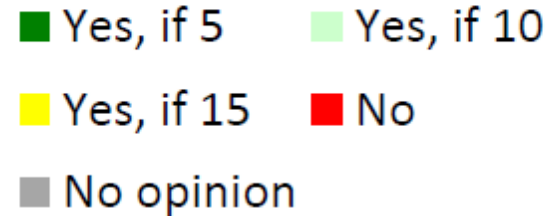
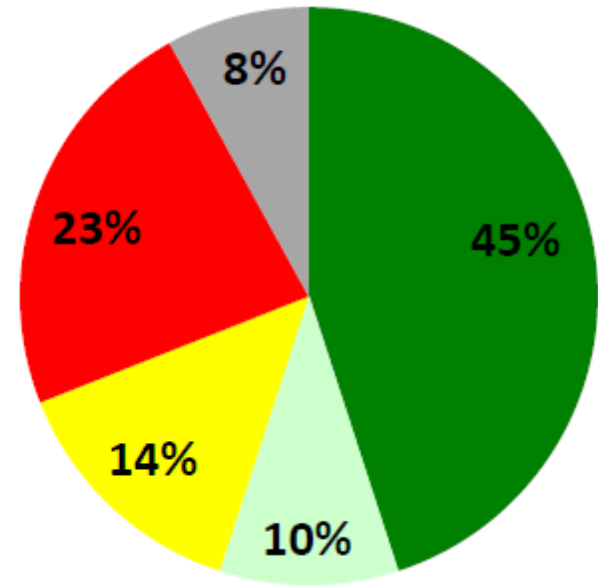


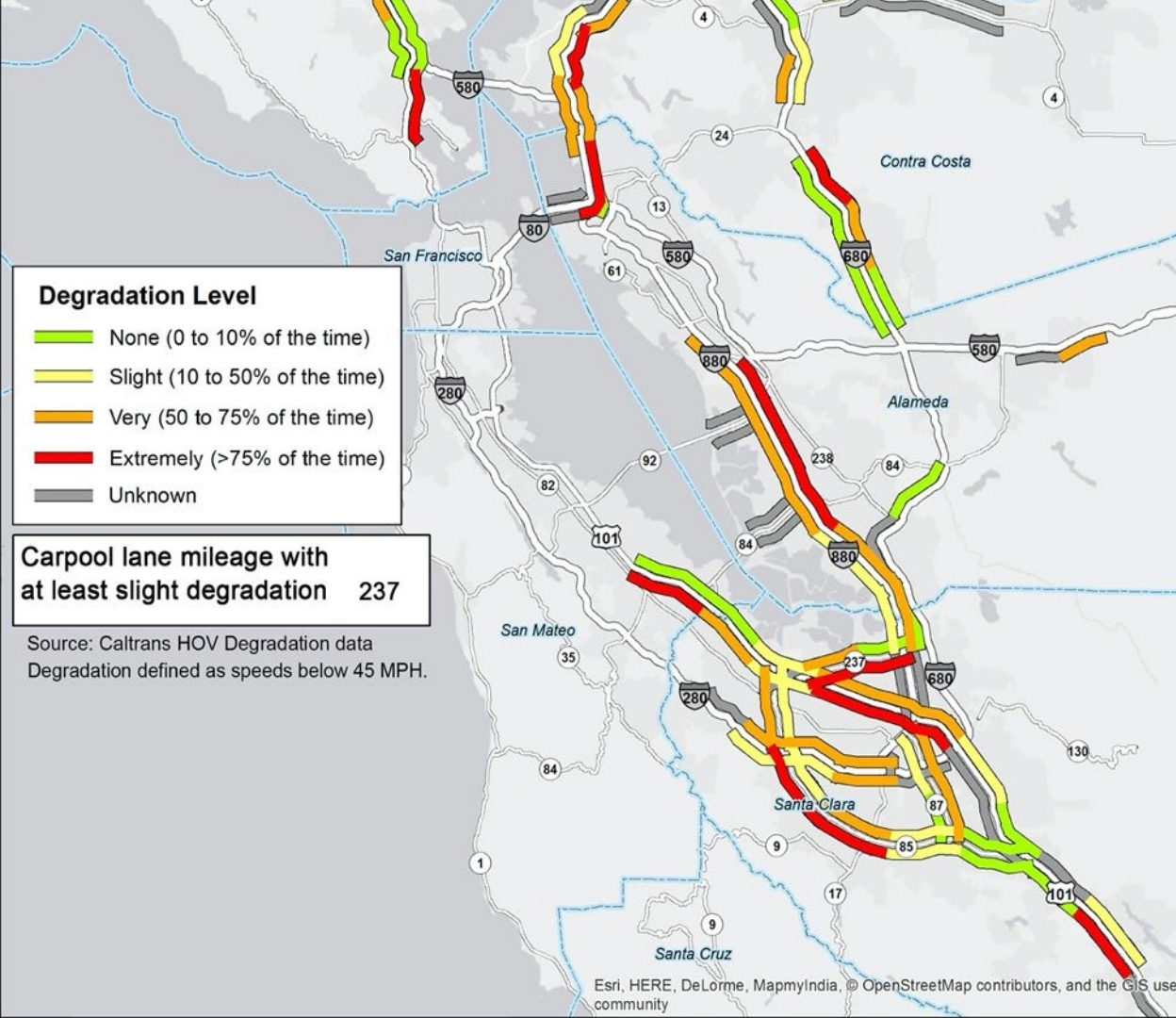
Assumed ridership: bus = 30 passengers, vanpool = 8 passengers

Source: MTC

MTC Managed Lanes Survey

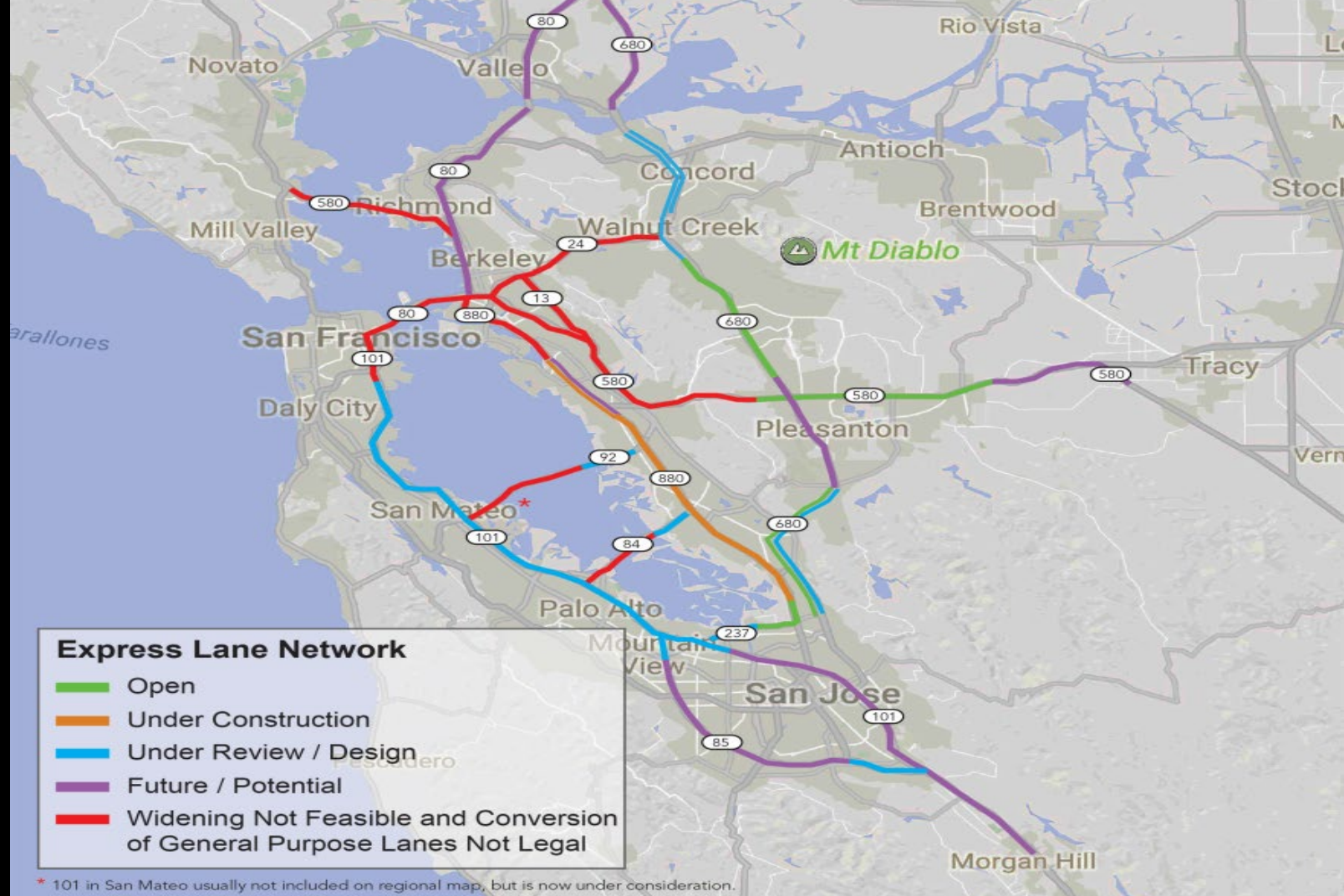
- 71% of respondents currently drive alone.
- **Over half of respondents would use an express bus if it was reliably 10 minutes faster than driving.**





Little priority for higher occupancy modes or incentives to take transit/carpool on our highways

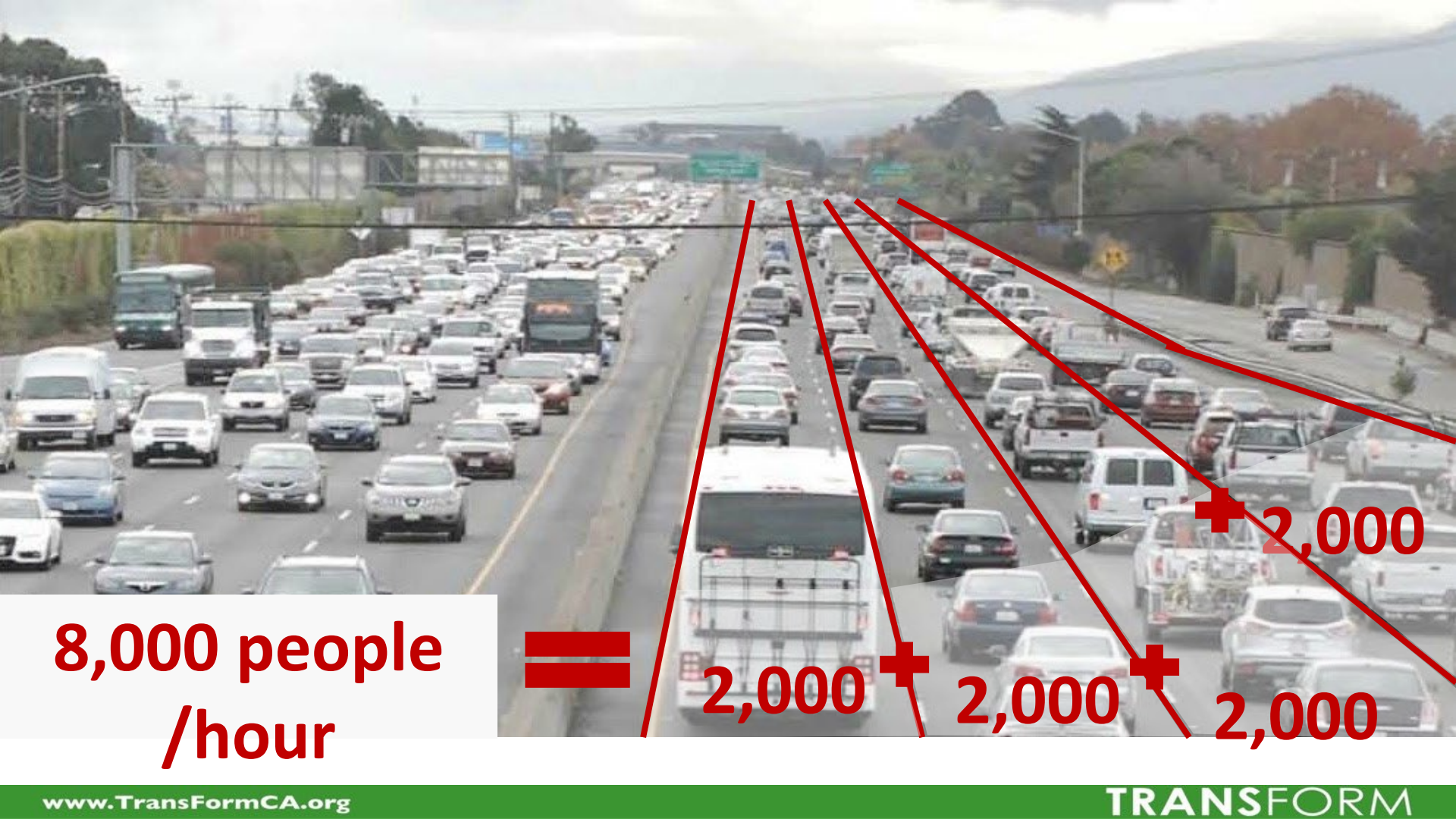
Buses stuck in traffic, even in areas where carpool lanes that do exist



TransForm's Horizon Proposal

- Create a seamless express lane network
- Invest in public transportation and carpool/vanpool/TDM programs to make the most of the lanes
- Incorporate equity strategies





8,000 people
/hour

=

2,000

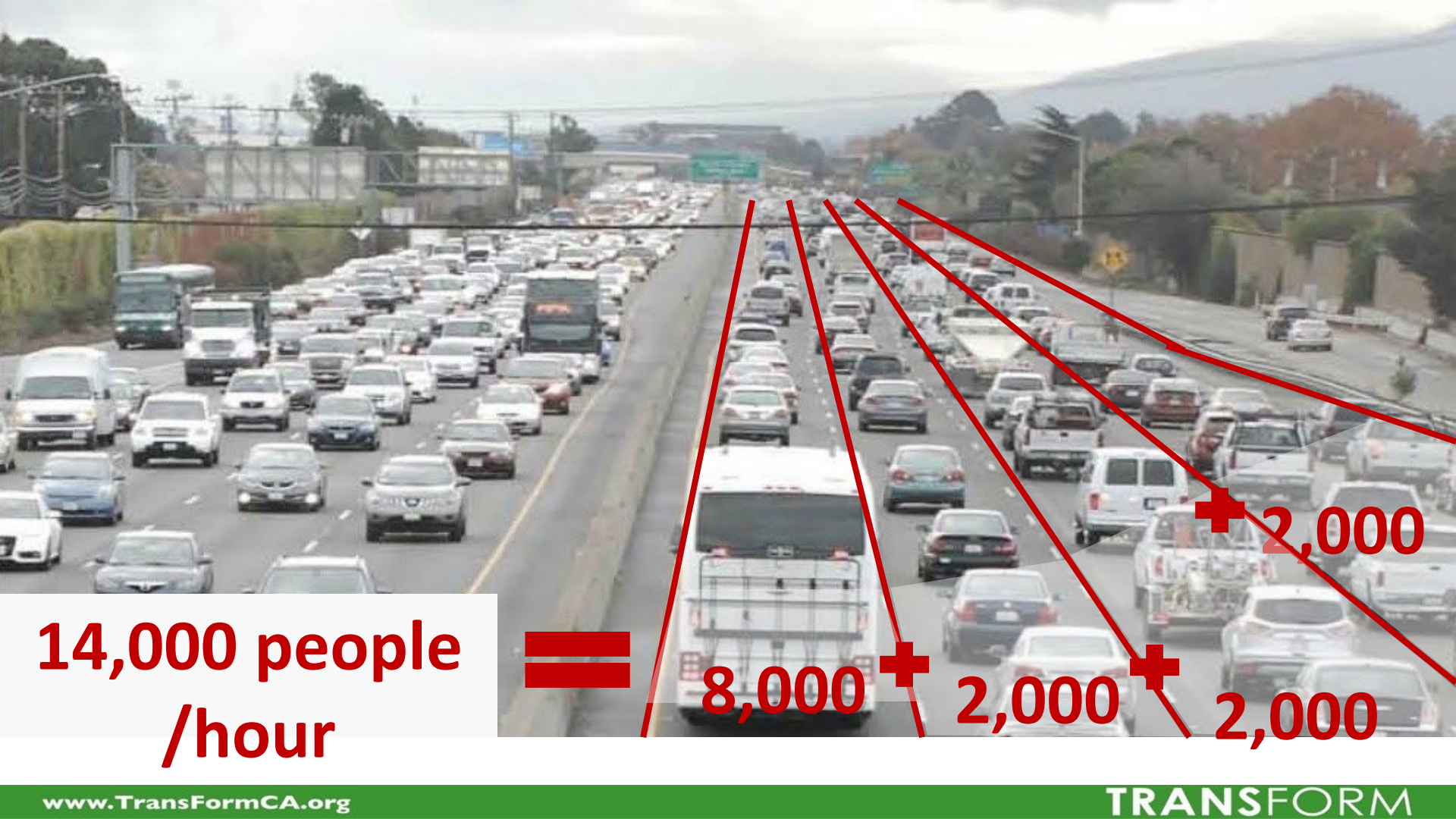
+

2,000

+

2,000

+ 2,000



14,000 people
/hour

=

8,000

+

2,000

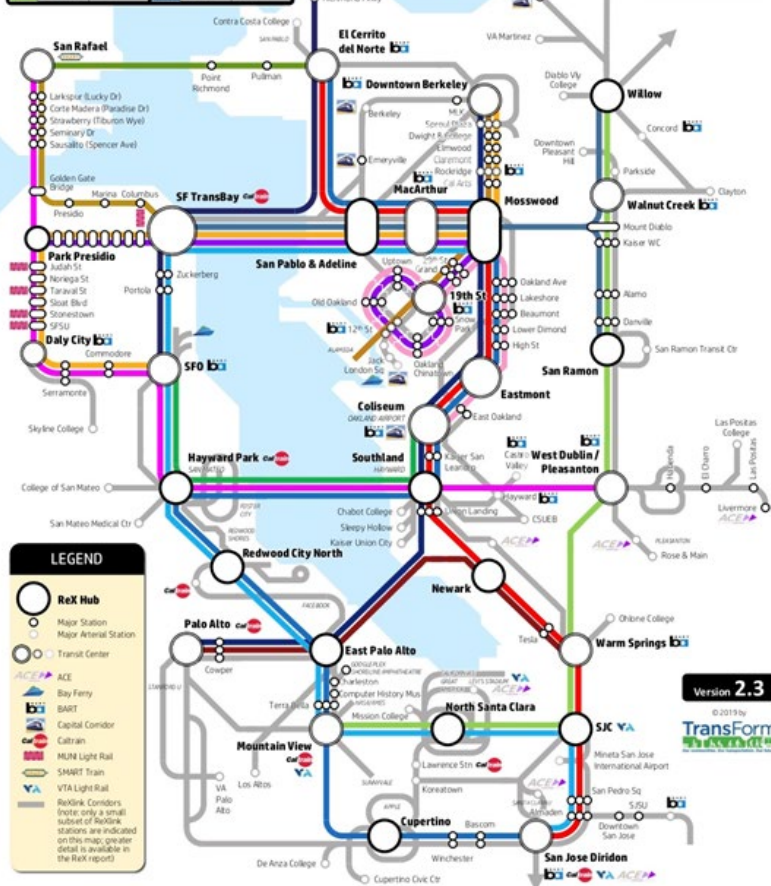
+

2,000

+ 2,000

ReX Express Routes:

Line	Color	From	To
1000	Red	San Jose Diridon	El Cerrito del Norte
1001	Red	San Jose Diridon	El Cerrito del Norte
1002	Red	San Jose Diridon	El Cerrito del Norte
1003	Red	San Jose Diridon	El Cerrito del Norte
1004	Red	San Jose Diridon	El Cerrito del Norte
1005	Red	San Jose Diridon	El Cerrito del Norte
1006	Red	San Jose Diridon	El Cerrito del Norte
1007	Red	San Jose Diridon	El Cerrito del Norte
1008	Red	San Jose Diridon	El Cerrito del Norte
1009	Red	San Jose Diridon	El Cerrito del Norte
1010	Red	San Jose Diridon	El Cerrito del Norte
1011	Red	San Jose Diridon	El Cerrito del Norte
1012	Red	San Jose Diridon	El Cerrito del Norte
1013	Red	San Jose Diridon	El Cerrito del Norte
1014	Red	San Jose Diridon	El Cerrito del Norte
1015	Red	San Jose Diridon	El Cerrito del Norte
1016	Red	San Jose Diridon	El Cerrito del Norte
1017	Red	San Jose Diridon	El Cerrito del Norte
1018	Red	San Jose Diridon	El Cerrito del Norte
1019	Red	San Jose Diridon	El Cerrito del Norte
1020	Red	San Jose Diridon	El Cerrito del Norte

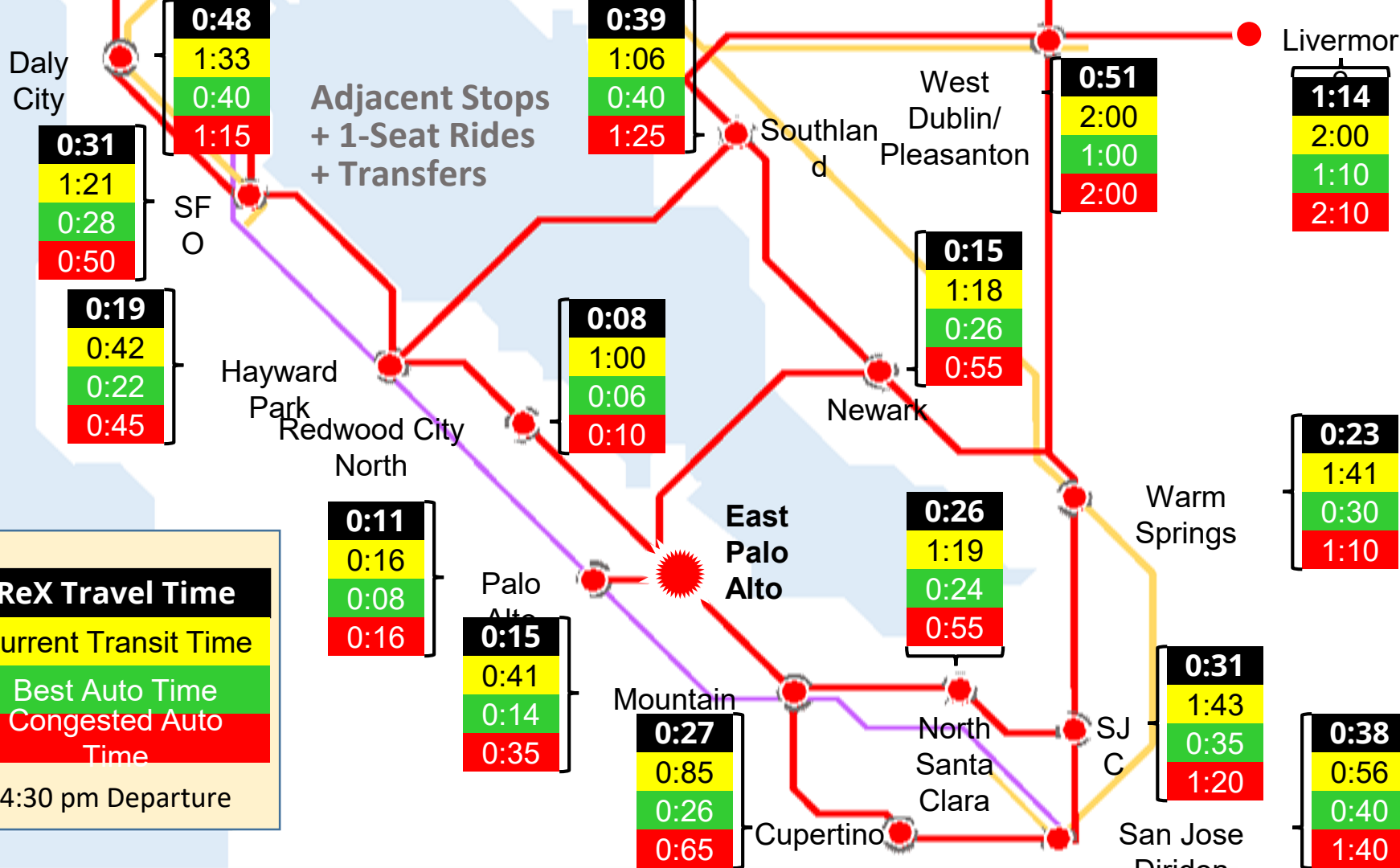


ReX

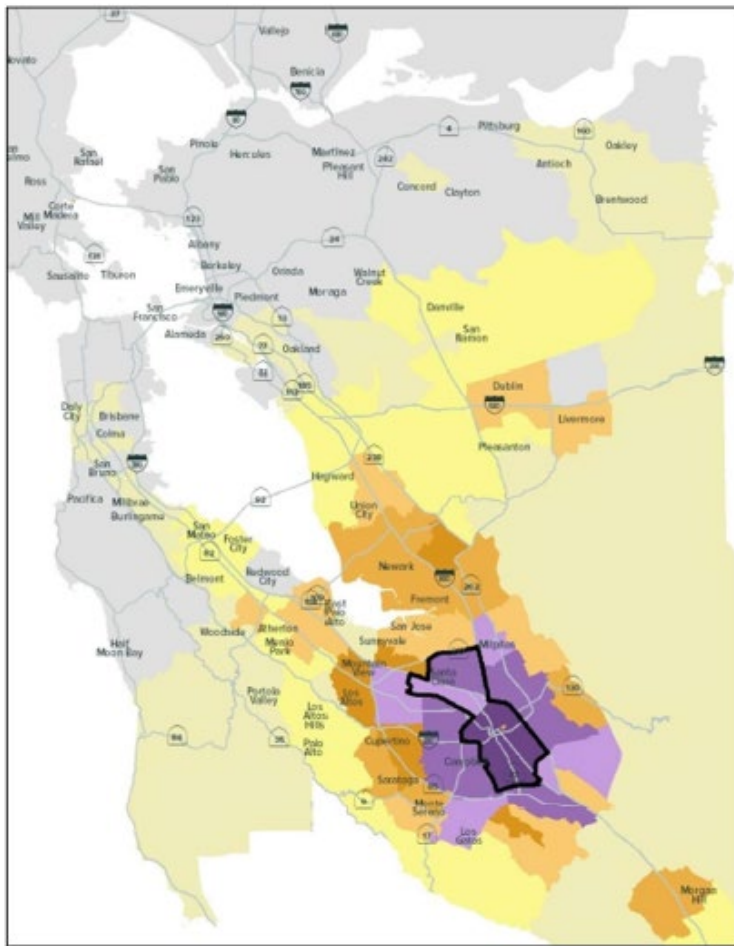
BAY AREA REGIONAL EXPRESS TRANSIT NETWORK

Connecting the Bay Area with a Regional Express (ReX) Transit Network

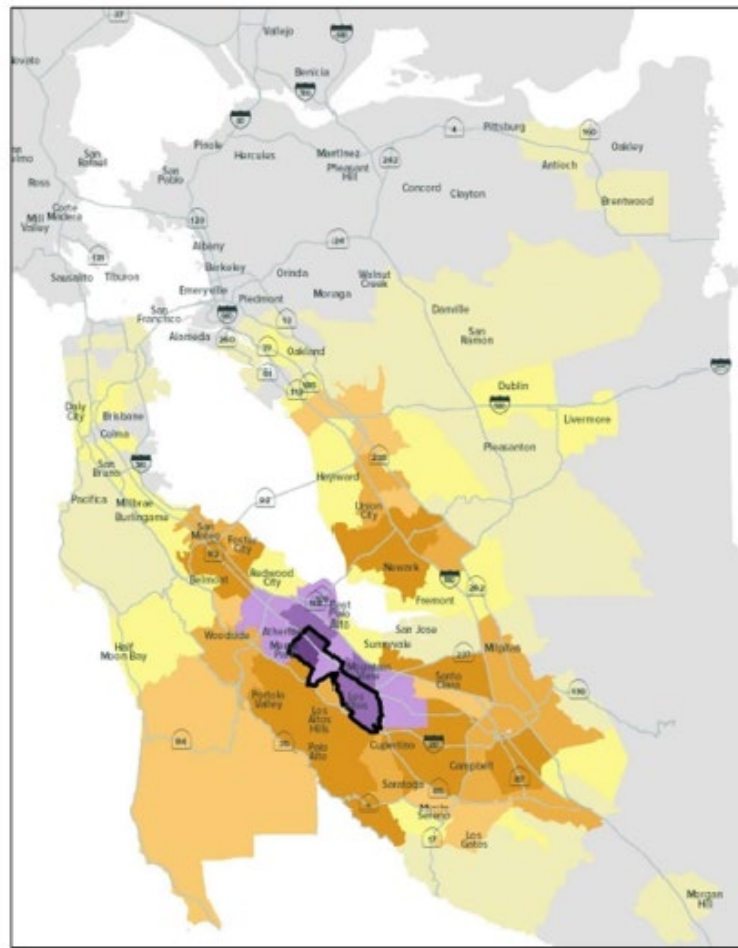




Employment Zone #1: San José Central



Employment Zone #2: Palo Alto / Stanford / Los Altos



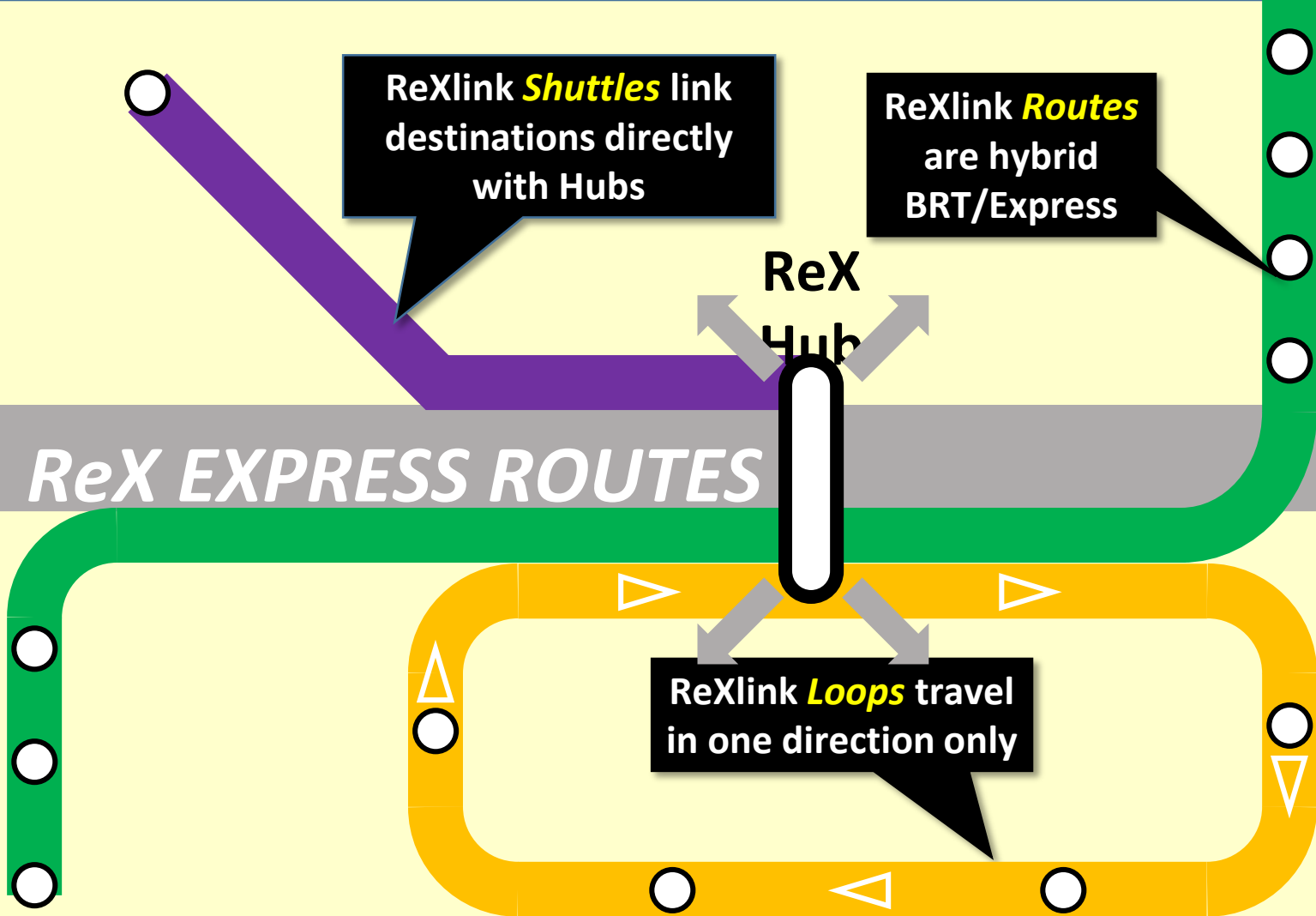
ReXlink **Shuttles** link destinations directly with Hubs

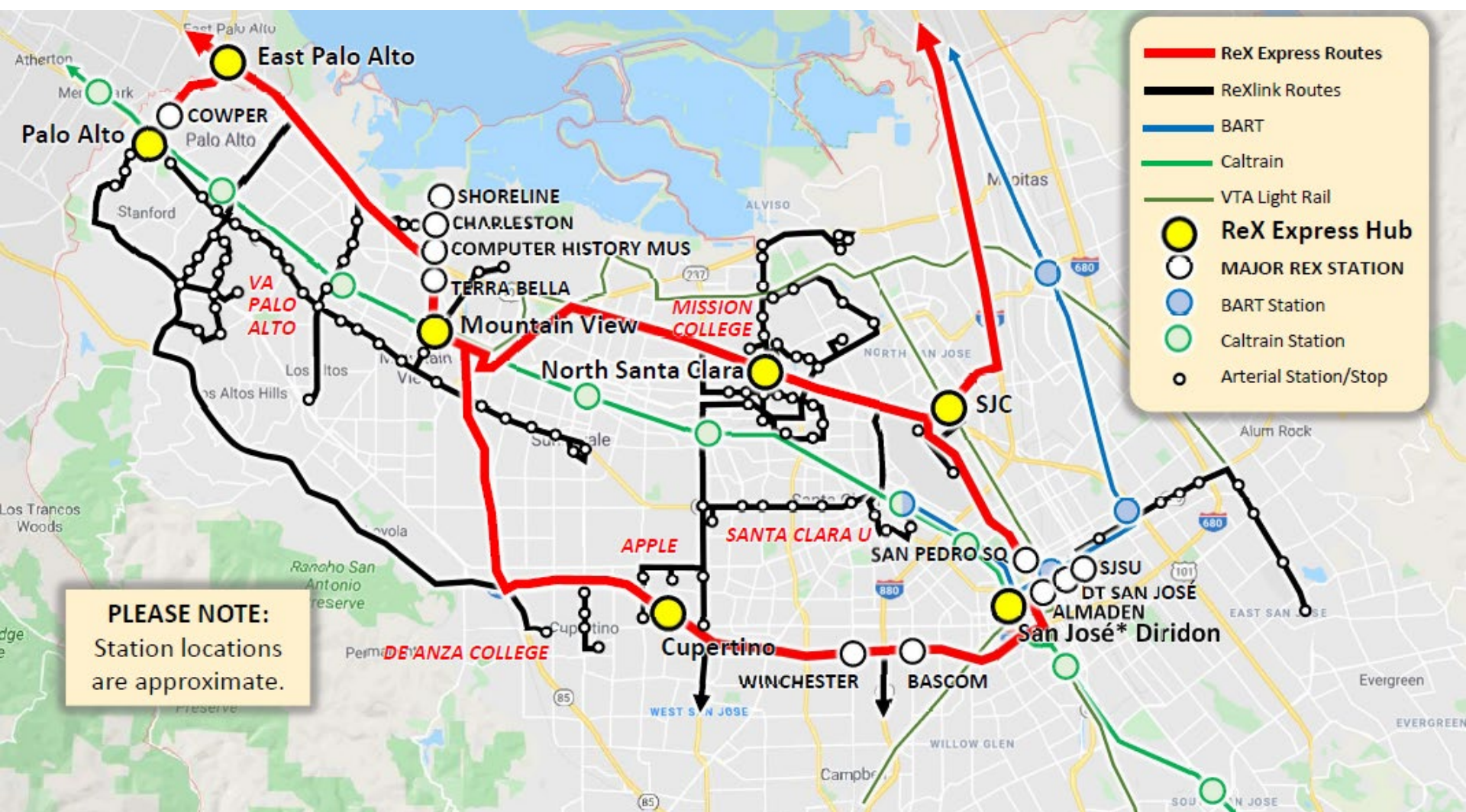
ReXlink **Routes** are hybrid BRT/Express

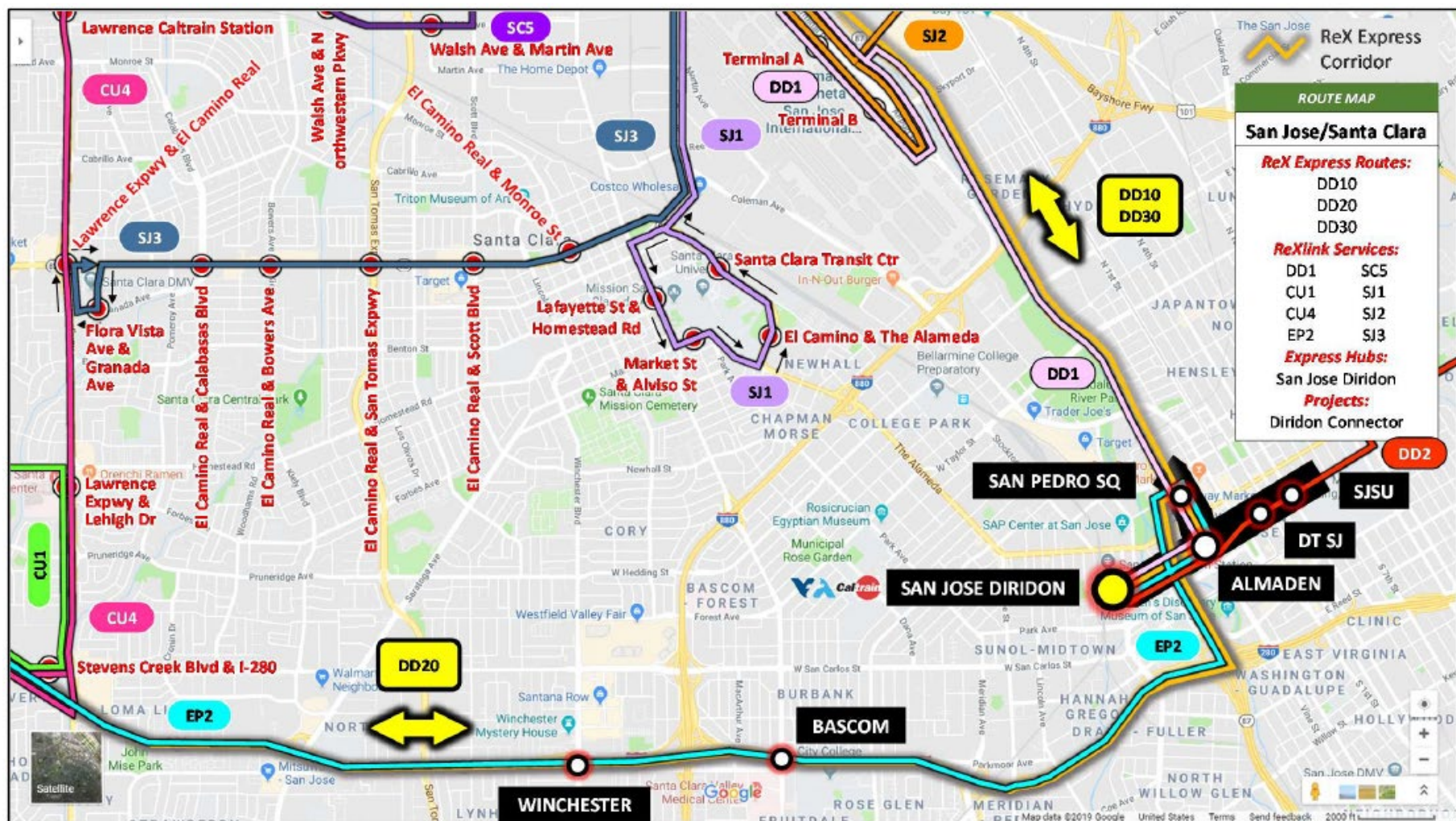
ReX
Hub

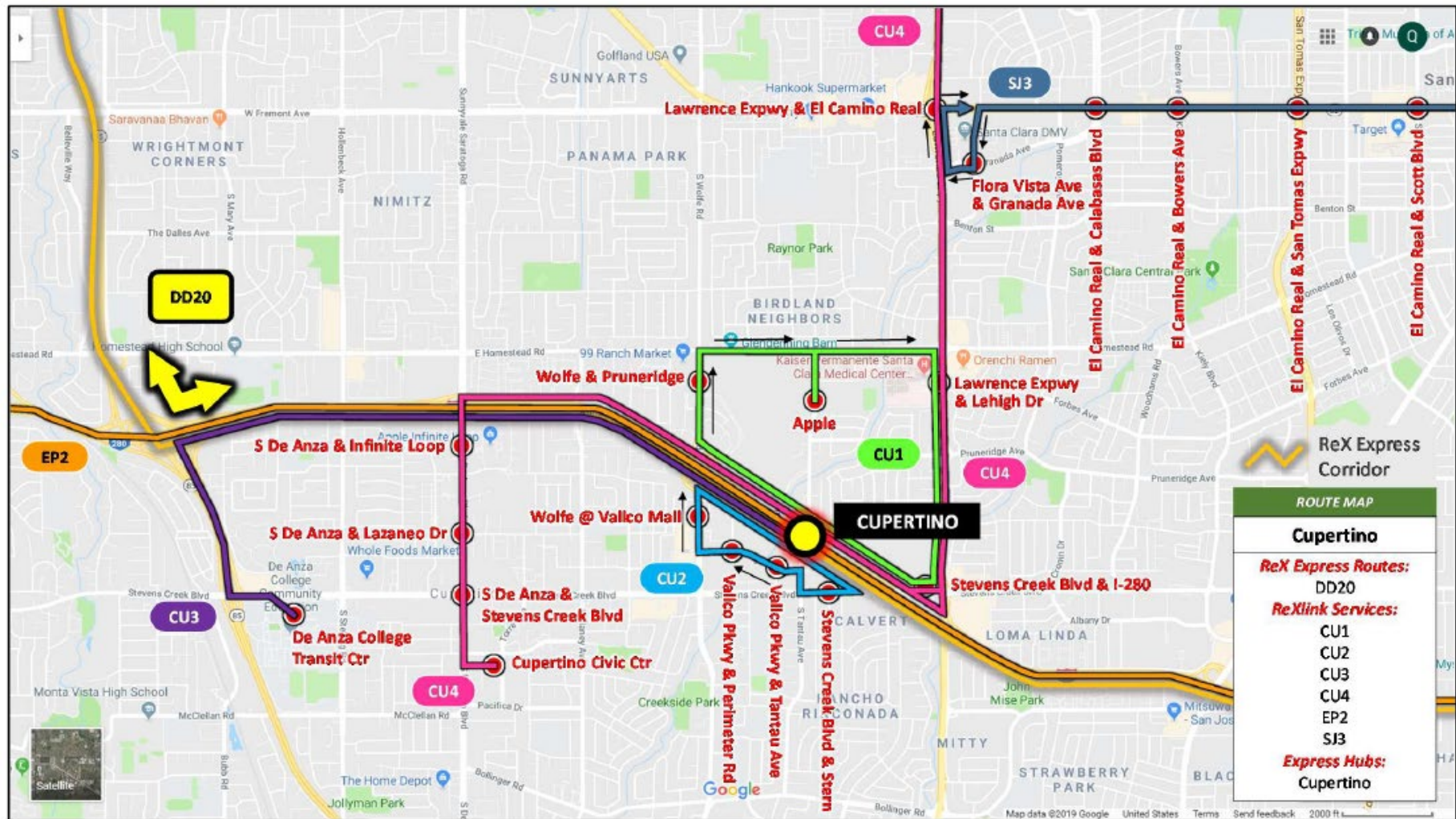
ReX EXPRESS ROUTES

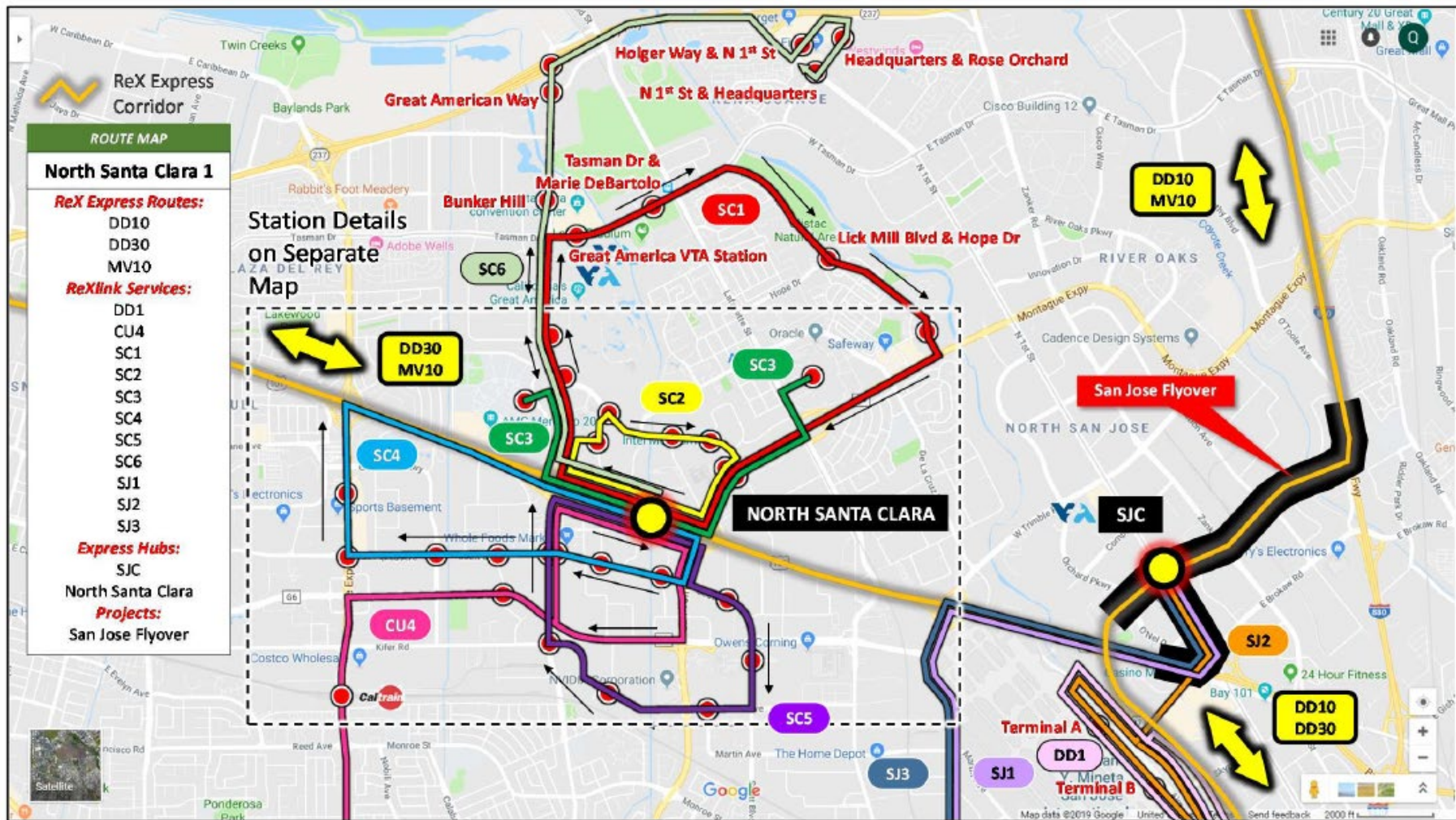
ReXlink **Loops** travel in one direction only











Rapid Transit TODAY



Rapid Transit TODAY



Rapid Transit ReX & ReXlink



Google

Projected Costs (\$ Millions)					
Type of Guideway	Miles	\$/mi.	Base		High
Bored Tunnel	1.0	\$ 373	\$	382	\$ 611
Cut-and-Cover Tunnel	17.3	\$ 299	\$	5,158	\$ 8,253
Surface - New	10.0	\$ 27	\$	268	\$ 429
Surface - Repurposed	6.4	\$ 4	\$	29	\$ 46
Elevated	19.1	\$ 119	\$	2,280	\$ 3,648
Subtotal	53.8	\$		8,117	\$ 12,986
Type of Station	Number				
Hubs	30	\$	1,020	\$	1,020
Non-Hubs	622	\$	1,067	\$	1,067
Subtotal	652	\$	2,087	\$	2,087
Additional	Number				
Vehicles	994	\$	994	\$	994
Garages & Offices	5 + 1	\$	1,400	\$	1,400
Subtotal		\$	2,394	\$	2,394
TOTAL		\$	12,598	\$	17,467



Figure 6.10
Projected ReX Capital Costs, Guideways + Stations



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