CalSTA Transit Transformation Task Force (TTTF) Meeting #2

February 29, 2024

Agenda for today

X Upcoming section

Topic	Objectives	Time
Virtual welcome from the Secretary of Transportation – *Toks Omishakin*		5 minutes
Welcome from Sacramento Area Council Governments (SACOG) – *Kristina Svensk*		5 minutes
Public comment		10 minutes
Review the Transit Transformation Task Force (TTTF) Goals and Objectives	Align on Goals and Objectives	10 minutes
Review California's goals and what they imply for transit ridership	Review California's sustainability goals Translate goals into what they could mean for increased transit ridership Illustrate how goals could vary across illustrative CA corridors	45 minutes
Review case studies that might provide examples of how California can transform transit ridership	Share case studies of similar geographies that have achieved transformative increases in transit ridership	35 minutes
Preview next steps, including the cadence of task force meetings and preparation required for the next meeting	Present full journey for completion of the TTTF report Preview agenda and homework to be completed for next TTTF meeting on April 9th	10 minutes
		Total: 2 hours

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

Welcome to Sacramento

Sacramento Area Council Governments (SACOG)

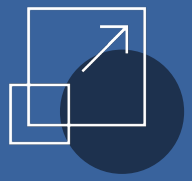
Source: Visit Sacramento

Public comment

Our discussions in these task force meetings aim to be…

Aspirational

Think big: all ideas are on the table for discussion



Unconstrained

Assume no resourcing or capacity constraints today

Costs and funding will be the focus of upcoming TTTF meetings

Positive

Consider the merit of all ideas; do not judge ideas prematurely

Equitable

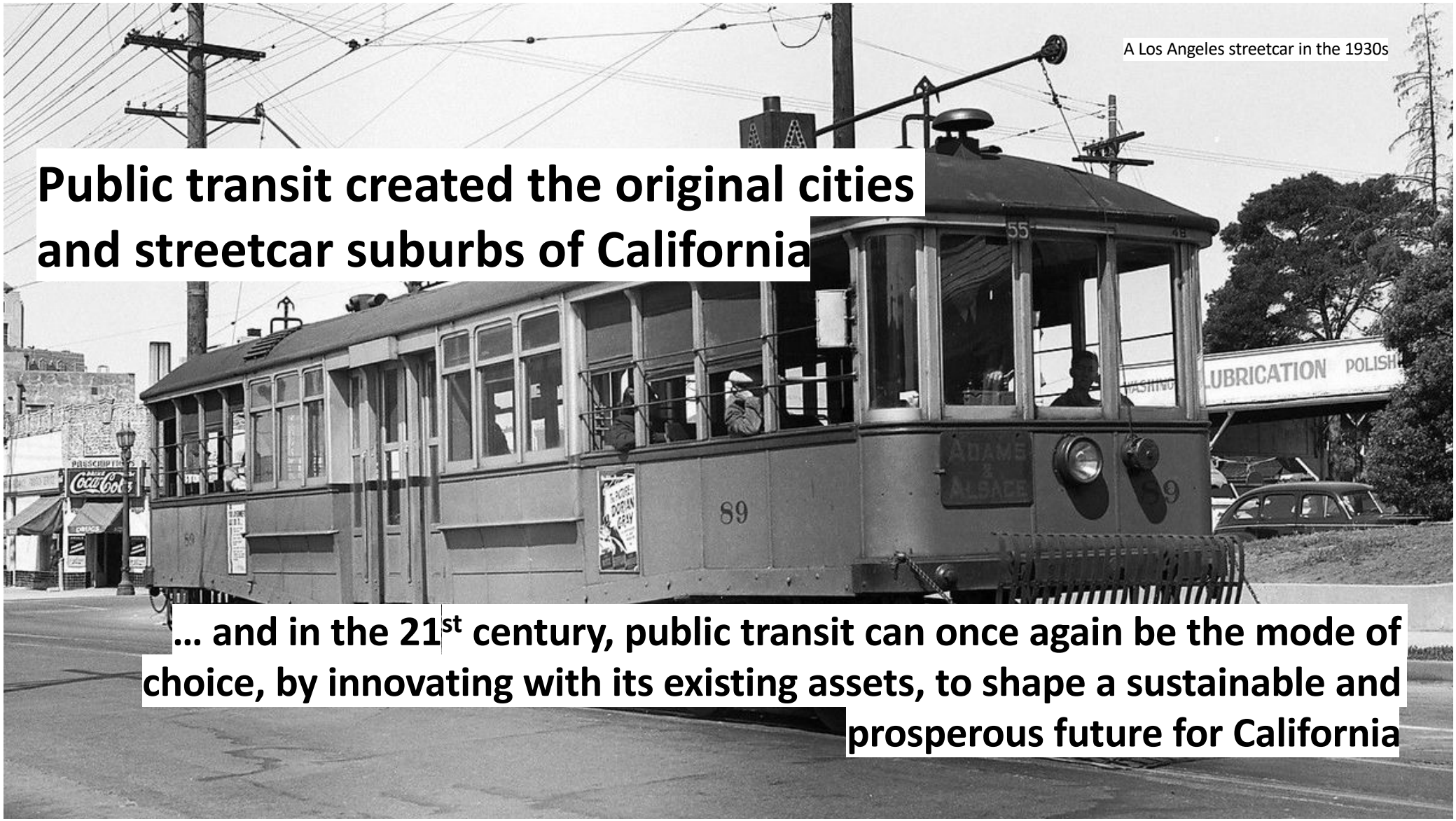
Treat every idea or opinion as equally valuable to the discussion

Focused

Attend to the intended discussion topic; be focused on the outcomes for today's session

Clarify areas of further investigation for future sessions

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Jan. 2024

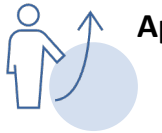


A Los Angeles streetcar in the 1930s

Public transit created the original cities and streetcar suburbs of California

… and in the 21st century, public transit can once again be the mode of choice, by innovating with its existing assets, to shape a sustainable and prosperous future for California

The Transit Transformation Task Force is an opportunity to focus on a level of change that is transformational for transit across California

	From incremental …	… to transformational
 **Aspiration**	How do I achieve **pre-COVID ridership**?	How can **transit** attract new customers and become the mode of choice?
 **Constituency**	How can transit **ridership grow in my region each year?**	What would it take to **serve the majority of trips** in urbanized areas via transit?
 **Constraints**	**What can I do in my role** to deliver for transit?	**How can we collectively collaborate** differently to best support the customer, given our current assets and future investments?
 **Approach**	How much funding will be necessary to **support** this goal?	What radical shifts in operations or availability could be made to **scale service exponentially**?

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

Our question to answer for the next 18 months together

What will it take to achieve transformative change in transit?

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

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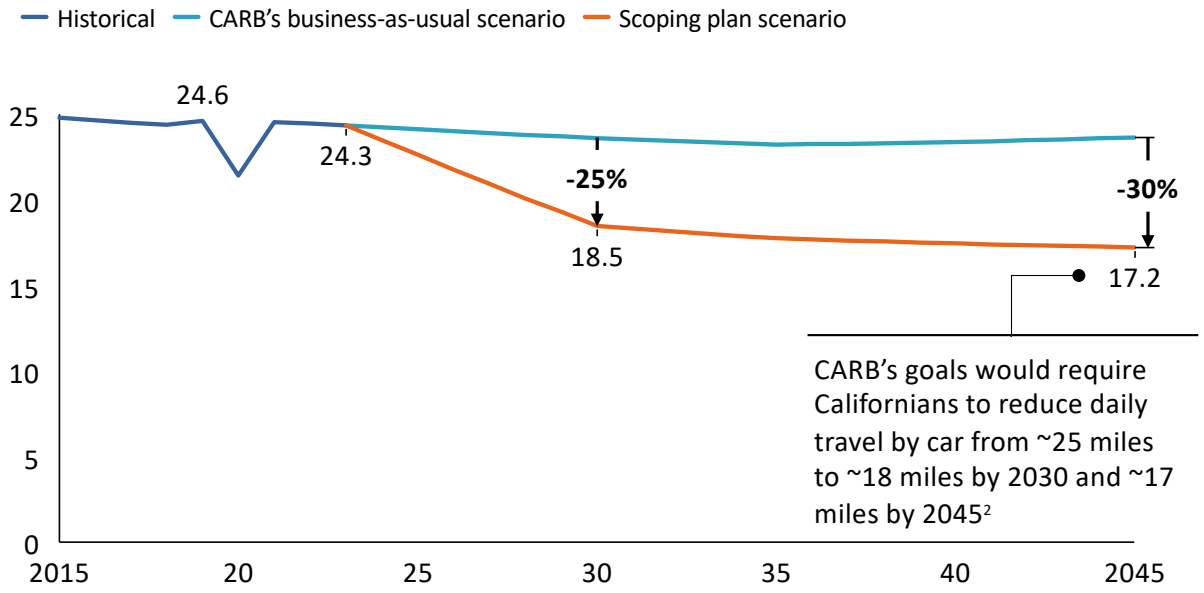
As part of California's plan to reach mandated carbon neutrality by 2045, CARB targets a reduction in VMT of ~30% of 2019 levels by 2045

CARB's 2022 Scoping Plan sets carbon neutrality by 2045 as its target

The Scoping Plan projects that a **significant reduction in vehicle miles traveled** is required to meet carbon neutrality

Passenger Vehicle VMT Per Capita (miles/day/person)[1]



1.Targets reflect CO2 emissions only from light duty passenger vehicles within California's 18 MPO1 regions, which together account for 81% of the statewide light-duty VMT
2.Considers that ~30% of light-duty vehicles on the road in 2045 will still burn fossil fuels even with all new car sales being ZEVs by 2035 through implementation of CARB's Advanced Clean Cars II regulations

Source: The California Air Resources Board, Regional Plan Targets

This thought exercise examines some paths to reduce VMT by 30% through mode shift to transit

Potential different paths to reduce VMT:

Shift trips from cars to **another mode**

Reduce the number of trips per person

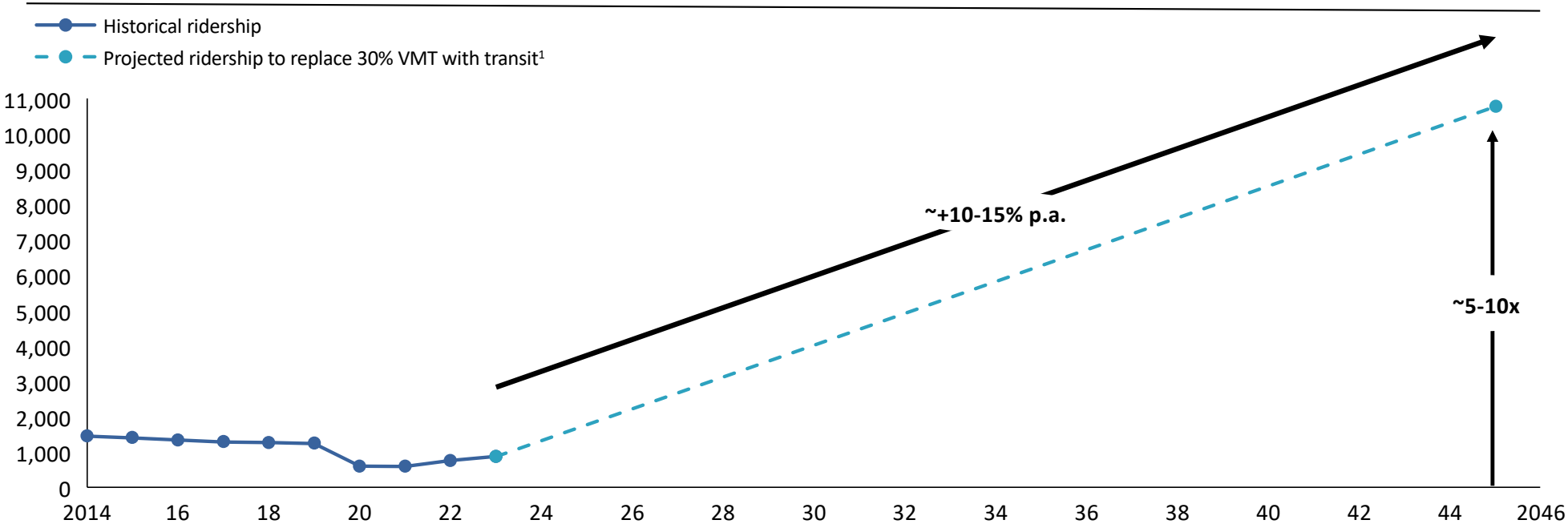
Reduce trip length

How much would transit ridership need to grow to reach CARB targets, solely from a mode shift to transit?

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

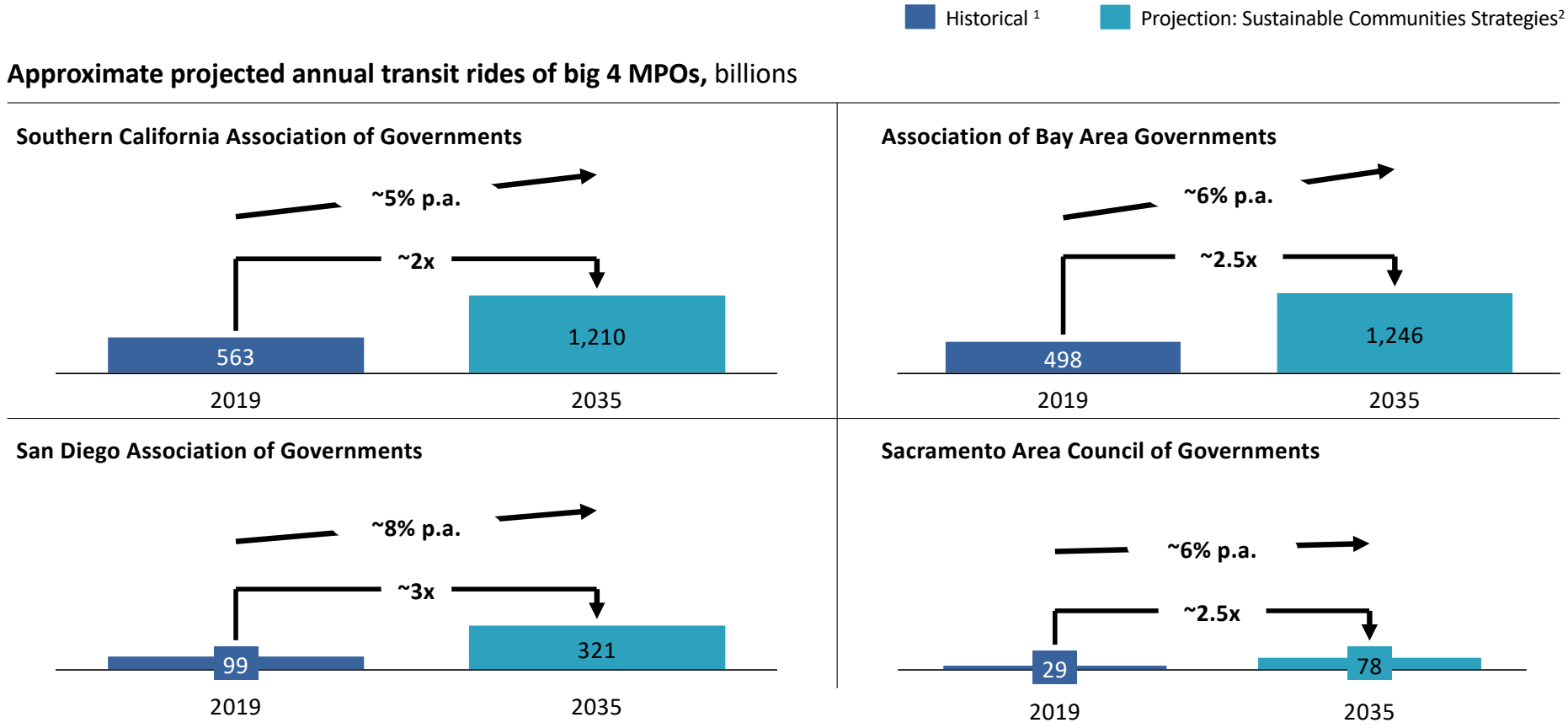
Achieving VMT targets through shifting to transit means California would need a ~5-10x ridership increase from pre-COVID levels by 2045

California transit annual ridership, millions



1. Assumes a one-for-one replacement of current automobile trips with transit trips; induced demand from reduced vehicular traffic is not considered

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

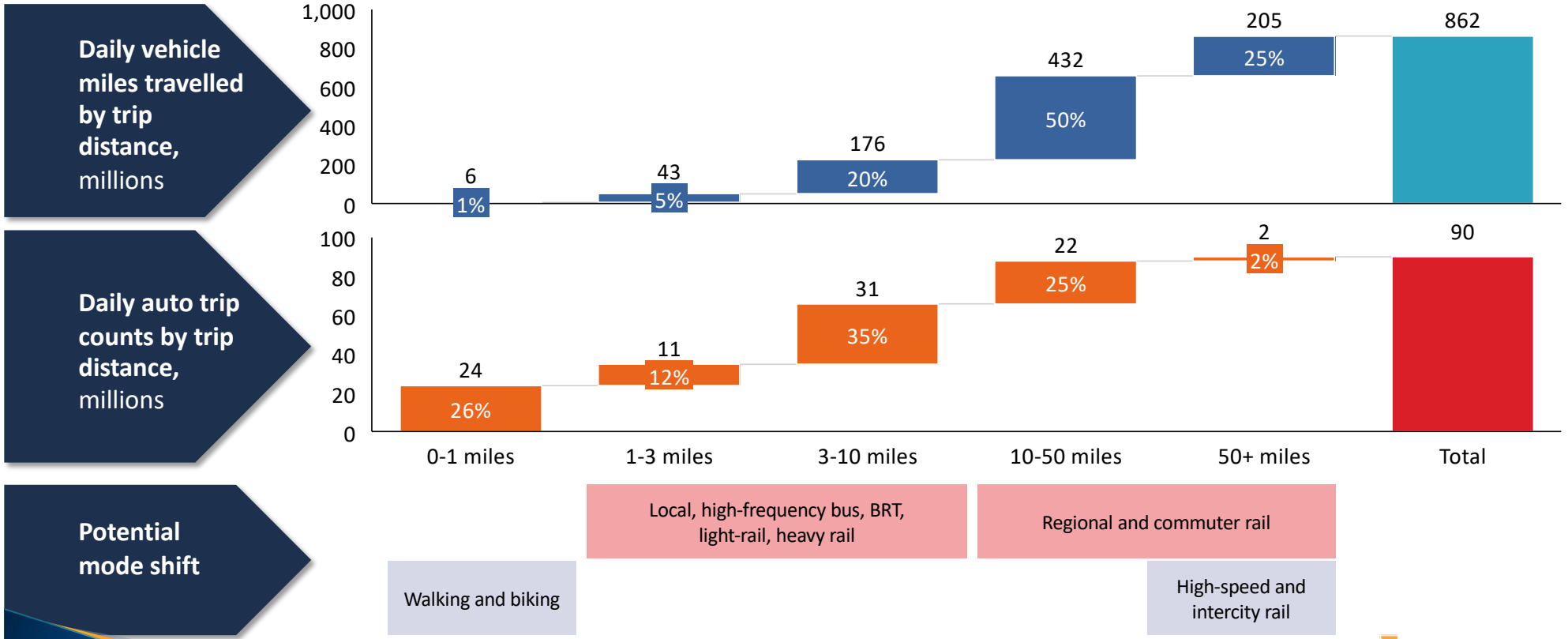


1. Estimation from transit rides per person per year reported by CARB in 2019 and 2022 population estimates from census tract data | 2. Calculated from targets set for 2035 relative to 2016 levels in regional SB 375 compliance plan

Source: SB 375 Regional Plan Climate Targets landing page, SB 375 Appendix A: MPO and CARB staff recommendations , Evaluation of ABAG SB 375 strategy, Evaluation of SANDAG SB 375 strategy, Evaluation of SCAG SB 375 strategy, CARB Sustainable communities SB150 Dashboard, discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

Not all VMT would need to shift to urban transit; potential target may be closer to 4-6x pre-COVID levels

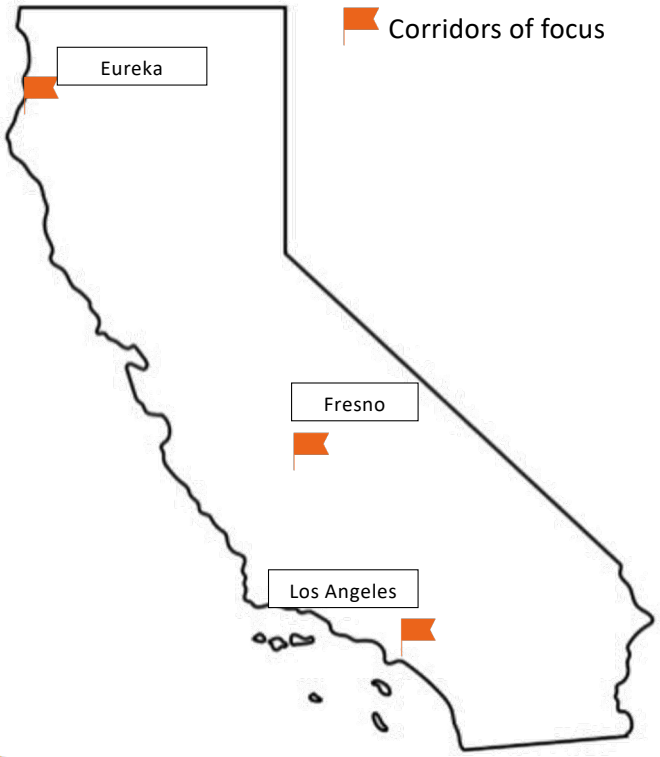
California light vehicle travel patterns in 2023



Source: The California Air Resources Board ; California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

Three example corridors illustrate what a 30% reduction in VMT, and 4-6x increase in transit usage, looks like

3 corridors across California were analyzed to show what it may take to reduce VMT by 30%



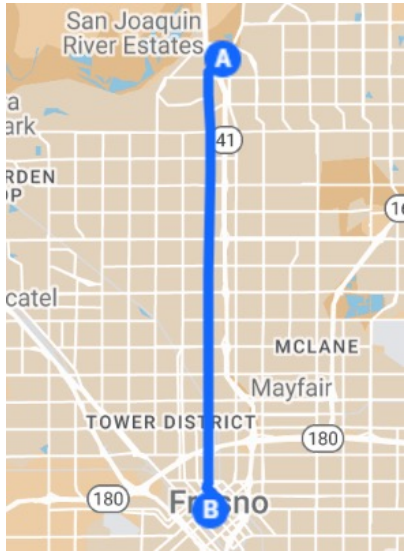
Corridors were selected to reflect a diversity of travel patterns across California, e.g.:

1. **Geographic region**: Three regions were analyzed, including Southern California, Central Valley, and the North Coast
2. **Length of trip:** Range from 1-3 miles, 3-10 miles, and 10-50 miles
3. **Types of city:** Large, medium, and small cities
4. **Existing modes:** Bus and rail
5. **Capital investment underway:** Corridors with and without current or planned capital investment in infrastructure were evaluated

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

Illustrative example: N. Blackstone Ave in Fresno between Woodward Station and downtown would require 4-6x new transit trips by 2045 to meet CARB goals

Corridor of focus[1]



A B Represent start and end points of corridor

Corridor description

~10- mile corridor on N. Blackstone Ave. in Fresno serviced by a Route 1 bus rapid transit route (BRT)[2]

Fresno Area Express Route 1 bus[3]

Current state

200 – 300K Average daily automobile trips within corridor (2023)[4,5,6]

5 – 10K Estimated average daily transit ridership (2018-2019)[2]

Potential future state

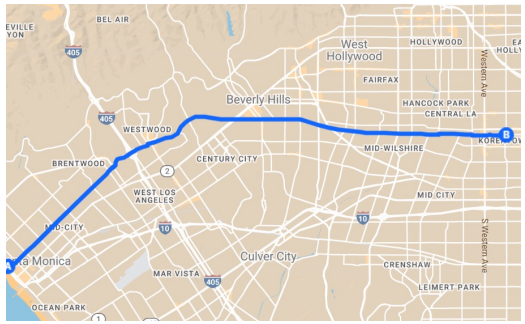
+30 – 40K Increase in daily transit customers from today on this corridor needed to meet CARB goals[4,6]

35 – 50K 2045 total daily transit ridership on this corridor needed to meet CARB goals[4,6]

Source: 1) Google Maps; 2) City of Fresno; 3) GVWire; 4) Discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024; 5) Assumes trips are equivalent to average daily vehicle miles traveled (VMT) divided by median trip length of 1.5 miles; 6) Replica; 7) US Census Bureau; 8) USA World Media Group; 9) Fresno Council of Governments; 10) National Center for Sustainable Transportation

Illustrative example: Wilshire Boulevard between Santa Monica and Koreatown would need ~3x more transit trips by 2045 to meet CARB goals

Corridor of focus[1]



Represent start and end points of corridor

Corridor description

Purple (D-Line) proposed extension[2]

~12.5-mile corridor, serviced by traditional bus routes (Routes 720 and 20), runs between Santa Monica and Koreatown[2]

Current state

600 – 700K Average daily automobile trips within corridor (2023)[3,4,5]

25 – 30K Estimated average daily transit ridership (2022)[3]

Potential future state

+75 – 80K Increase in daily transit customers from today on this corridor needed to meet CARB goals[3,4]

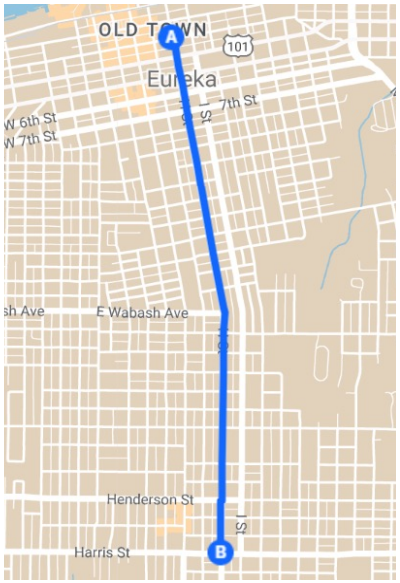
100 – 110K 2045 daily transit ridership on this corridor needed to meet CARB goals[3,4]

The **Purple (D Line) Extension** expects **an additional 50k daily boardings on D-Line attributable to extension project**[13]

Source: 1) Google Maps; 2) LA Metro Westside Projects; 3) Discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024 ; 4) Assumes trips are equivalent to average daily vehicle miles traveled (VMT) divided by median trip length ; 5) Based on July 2022 monthly ridership by line; 6) US Census Bureau ; 7) California Demographics; 8) USA World Media Group; 9) City of Beverly Hills; 10) National Center for Sustainable Transportation ;11) Based on July 2022 monthly ridership by line; 12) Purple Line Extension Final Supplemental Environmental Impact Statement

Illustrative example: H Street Corridor, running South from Old Town Eureka, would require ~10-20x new transit trips by 2045 to meet ~30% reduction in VMT

Corridor of focus[1]



A B Represent start and end points of corridor

Corridor description

~2-mile corridor connecting Old Town and residential neighborhoods, serviced in part by **Eureka Transit Service purple bus line route[2]**

Eureka Transit Service purple line, currently serving H Street corridor[2]

Current state

65 – 70K Average daily automobile trips within corridor (2023)[3,4,5]

~1 – 1.5K Estimated average daily transit ridership (2022)[5]

Potential future state

+15 – 20K Increase in daily transit customers from today on this corridor needed to meet 30% VMT reduction[3,4]

16 – 21.5K 2045 total daily transit ridership on this corridor needed to meet 30% VMT reduction[3,4]

Source: 1) Google Maps; 2) 1.4 of 2 miles of H Street Corridor are served by Purple Route - Eureka Transit Service; 3) Discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024; 4) Replica; 5) Assumes trips are equivalent to average daily vehicle miles traveled (VMT) divided by median trip length of 1.5 miles; 6) Includes ridership on Eureka Transit Service, Redwood Transit Southern Humboldt Intercity, all which provide service through Census tracts – Humboldt Transit Authority; 7) Eureka Transit Service; 8) US Census Bureau; 9) USA World Media Group; 10) Humboldt County; 11) National Center for Sustainable Transportation

Discussion questions

What are the challenges and constraints that we will need to investigate and address in order to achieve this level of ridership by 2045?

If you would like to share any reports, data, studies, and/or surveys which might be relevant to this work, please send them to SB125Transit@calsta.ca.gov

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Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

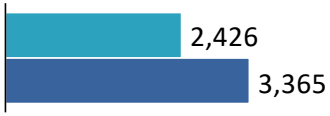
California's peer cities achieve higher transit ridership per capita and have similar densities and development patterns

Vancouver | Bay Area

2x ridership per capita

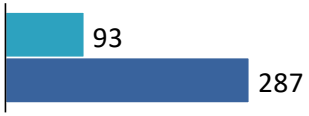
Vancouver has similar urban area density to San Francisco and achieves nearly 2x higher ridership with ~3x fewer miles of rail

Urban Area (UA) population (M)[1,2]



UA density (pop/sq mi)[1,2]

Miles of rail (mi)[3,4]



Ridership per capita (UA / PC)[5,6]

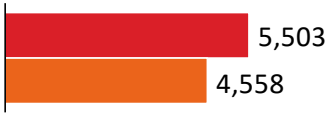
Winnipeg | Fresno

6x ridership per capita

Winnipeg has similar population and density to Fresno and achieves 6x higher transit (pre-COVID) with a bus-only network

Urban Area (UA) population (M)[1,2]

UA density (pop/sq mi)[1,2]



Miles of rail (mi)[7]

Ridership per capita (UA / PC)[5,8]

Vancouver and Winnipeg are able to achieve higher ridership per capita than their peer cities through:

- Frequency
- Bus network coverage
- Network integration
- Transit-oriented development

Source: 1) US Census 2020 1-year estimates, for Urbanized Areas; 2) Statistics Canada Census Profile, 2021 Census for Population Centers; 3) Vancouver miles of rail includes SkyTrain (49.72 total track miles) and West Coast Express (42.88 total track miles) – Daily Hive, Daily Hive; 4) Bay Area miles of rail includes Bay Area Rapid Transit (131.4 total track miles, including 33.5 miles of aerial track, 65.1 miles of track at grade, 32.8 miles of subway track), CalTrain (78.5 total track miles, including 71.5 miles of standard-gauge track, 7 miles of light rails), and SFMTA (77 total track miles, including 51 miles owned by JPB, 26 miles owned by Union Pacific) – National Transit Database; 5) 2022 Ridership, unlinked passenger trips – BART, SFMTA, Caltrain; 6) 2022 Ridership, unlinked passenger trips APTA; 7) Winnipeg and Fresno are bus-only networks - Winnipeg Transit Open Data Web Service Transit; 8) 2022 Ridership, unlinked passenger trips - CTV News

Vancouver and San Francisco are both geographically constrained by water and mountains with similar densities of 6 – 7K / square mile

Vancouver

Vancouver (Getty Images)

San Francisco

San Francisco (Getty Images)

Source: Translink ridership (Translink), SF Buses include Muni, AC Transit, SamTrans, VTA, and Golden Gate Transit; SF Rail includes Muni, BART, CalTrain, and VTA (SF Chronicle)

Vancouver's high-frequency, integrated network serves riders in both the core and suburbs, helping achieve 2x the per capita ridership of San Francisco

Frequency

Skytrain's automated large-scale network means all day high frequencies (2-3 minutes during peak, 5 min off peak)

An extensive high-frequency bus network exists, including 99B - the busiest bus route in North America – which peaks at 3–5-minute headways

Seabus ferry system operates every 15 min or less all day

Network integration

Ferry, bus, and rail networks are integrated to encourage ridership inside and outside the core

19% of suburban residents commute on transit, compared to 4% in the Bay Area

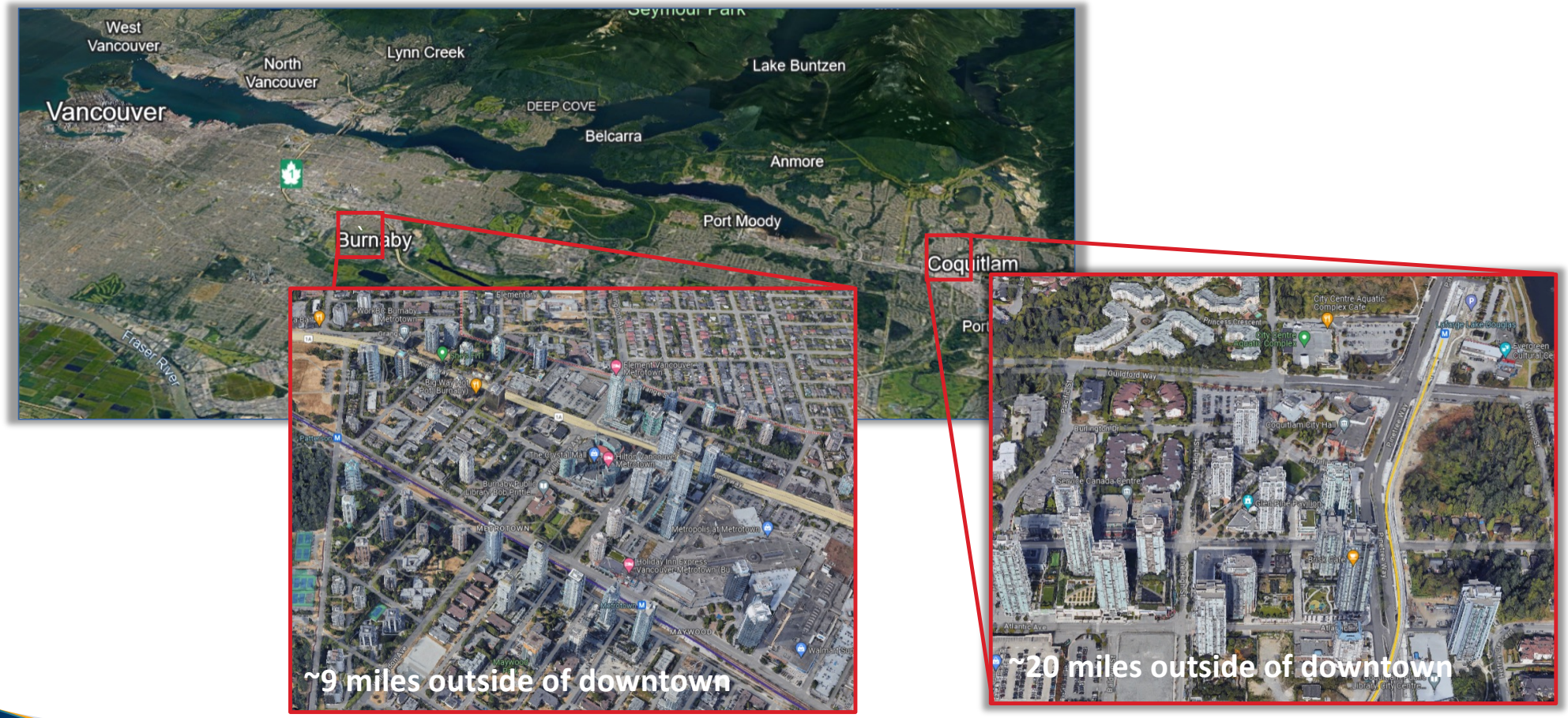
Transit-oriented development

Stations outside the core are built up with housing to ensure transit accessibility

Since 2017, Vancouver has delivered 77,000 units of TOD housing and plans to complete an additional 100,000 new units near 52 stations by 2030

Source: Translink ridership (Translink), SF Buses include Muni, AC Transit, SamTrans, VTA, and Golden Gate Transit; SF Rail includes Muni, BART, CalTrain, and VTA (SF Chronicle), BC Gov News 'Legislation introduced to deliver more homes near transit hubs'

Example: Vancouver builds transit-oriented development along transit lines in the suburbs



Source: Google Earth

Winnipeg and Fresno are both mid-sized inland cities with a population density of ~5K/square mile, with a small urban core surrounded by lower-density sprawl

Fresno

Fresno (Google Earth)

Winnipeg

Winnipeg (Google Earth)

Source: Winnipeg Transit Master Plan; Fresno County Rural Transit Agency Transit Productivity Evaluation Fiscal Year 2022; US Census Bureau American Community Survey 2023 1-year estimates, Google Earth

Winnipeg focused on improving bus transit in key corridors and integrating its entire network, which helps it achieve 6x the transit ridership per capita of Fresno

Source: Winnipeg Transit Master Plan; Fresno County Rural Transit Agency Transit Productivity Evaluation Fiscal Year 2022; US Census Bureau American Community Survey 2023 1-year estimates

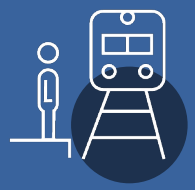
Frequency

Winnipeg currently has 30M vehicle revenue miles—6x that of Fresno—and is transitioning to 15-minute headways or better throughout the day on all routes

Coverage

Creation of a new core busway connects downtown to the university

Redesigned routes accommodate 80% of trips between areas outside of Downtown



Network integration

Introduction of a secondary feeder network (connector routes, community routes, on-demand service) enhanced system integration and increased trip efficiency by 25%

In California, many local transit agencies are already beginning to achieve the step changes necessary to meet the CARB goals

Example	Actions taken	Impact
Santa Cruz	Currently reimagining bus routes and frequencies to better meet community needs, including[1]: • More direct service to nearby towns, including direct service to UCSC from Live Oak and Capitola Mall • Express service from Watsonville direct to Santa Cruz during the weekday peak commute • Higher frequency at UCSC (e.g., every 15 min on Routes 18 and 19) • Service later into the evening on key routes	**37% increase** As of December 2023, year-over-year UCSC ridership up 37%[6] **>7M annual ridership** Planned increase in total ridership to >7M rides per year[1]
San Diego	• Bus on shoulder pilot project allows South Bay Rapid 225 bus to enter select shoulders to bypass vehicle congestion during peak travel times[2] • Buses equipped with enhanced safety technology features (e.g., blind spot warning)[2]	**2.5M passengers** Expected increase to Rapid 225 ridership (I-805 and State Route 94 between Downtown and Otay Mesa) during 3-year pilot program[3]
San Francisco	• Established San Francisco's first Bus Rapid Transit (BRT) system on Van Ness Avenue, including[4]: – Dedicated transit lanes – Enhanced traffic signals for buses	**60% in <1 year** Increase in ridership on 49 bus (from January – September 2022)[5]

Source: 1) Santa Cruz Metro ; 2) San Diego MTS; 3) Assumes 100 passengers per peak period, 2 peak periods per day, 3 years of service - SANDAG; 4) SFMTA; 5) San Francisco Chronicle; 6) UCSC

Discussion questions

Given the diversity of California, what one or two elements of the transit experience would need to change to achieve 2-3X more ridership in 5-10 years?

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Feb. 2024

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Draft topics for Transit Transformation Task Force meetings over the next year

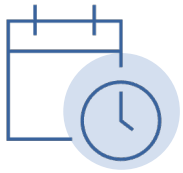
Diagnostic phase
Design phase

	Meeting theme	Potential dates	Potential locations	Duration
1	**Introduction**	Dec 19, 2023	Virtual	2 hours
2	**What outcomes does transit need to achieve** by 2030 to achieve State mandates?	Feb 29, 2024	Sacramento, CA	2 hours
3	**What would need to change** for transit to meet those goals?	Apr 9, 2024	San Diego, CA	4 hours
4	What **level/types of service** do these outcomes require?	June 17, 2024	San Francisco, CA	4 hours
5	What does this level of service imply for **OpEx spend, workforce and employee engagement?**	Aug 29, 2024	Los Angeles, CA	4 hours
6	What does this level of service imply for **CapEx spend?**	Mid-Oct 2024	Salinas / Monterey, CA	4 hours
7	How can this level of OpEx and CapEx be **funded?**	Dec 10, 2024	Clovis (Fresno), CA	4 hours
8	What **prioritized topics** and draft decisions should be included in the report?	Early Feb 2025	Riverside, CA	4 hours
9	**Draft report review**[1]	April 2025	Sacramento, CA	4 hours
10	**Final report briefing before submission**[1]	Sept 2025	San Francisco, CA (TBD)	4 hours

1. Final report due to legislature October 31, 2025

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Jan. 2024

Operating model: How the Transit Transformation Task Force (TTTF) and Technical Working Group (TWG) will work together

	Transit Transformation Task Force (TTTF)	Technical Working Group (TWG)
Responsibilities 	• Direct the overall effort • Clarify areas of future investigation for TWG • Make recommendations based on analysis from TWG across key topics that will form the legislative report • Review and sign onto final report	• Support data analysis and provide technical expertise for content ahead of TTTF meetings • Provide feedback on draft of final report • Iterate report based on public comments
Engagement model 	• Attend and actively participate in nine TTTF working sessions • Provide additional direction via written communication	• Meet monthly to prepare for TTTF sessions • Develop content and conduct analyses to create the basis of the TTTF sessions • Attend additional ad-hoc meetings as necessary, on specific topics

Goal: Reimagine the future of transit in the State of California and outline how key stakeholders including the state, regional planning organizations, and local agencies can accomplish that future

Next steps

We would appreciate your input on the following 3 topics:

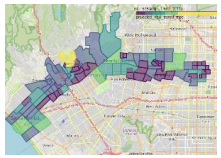
1. Specific challenges (other than funding) you think are preventing increased ridership (e.g., land use)
2. Other goals you view as critical outcomes for the work of the Transit Transformation Task Force (TTTF) (e.g., equity, sustainability)
3. Additional feedback you have on today's three discussion questions

We will follow up separately to gather your responses by March 18th, which will inform the work of the Technical Working Group (TWG) and content for the next TTTF meetings

If you would like to share any reports, data, studies, and/or surveys which might be relevant to this work, please send them to SB125Transit@calsta.ca.gov

Technical appendix

Methodology: Corridor analysis

	1	2	3	4	5	6	7
Analysis steps	**Select illustrative corridor**	**Determine daily average ridership**	**Determine census tracts that corridor passes through**	**Determine current vehicle miles traveled (VMT) for trips within corridor**	**Determine VMT reduction recommended**	**Determine implied ridership needed to meet CARB goals**	**Determine implied additional ridership**
Description	Select corridor with potentially high VMT, selected using publicly available traffic data	Average weekday daily ridership on routes that currently serve corridor	Using US Census data, determine which census tracts the corridor passes through	Determine average daily VMT and convert to auto trips for trips that originate and end within the census tracts that corridor passes through[1]	Apply ~30% reduction in average daily VMT to determine 2045 goal based on CARB recommendations[2]	Using average length of trip for car and transit travel for census tract, determine total riders needed to offset VMT	Subtract current ridership levels from 2045 ridership needed to determine difference
Source	California Transit Speed Maps, California State Geoportal	Publicly available reports from transit agencies or local governments	US Census Bureau	Replica, Caltrans	The California Air Resources Board	Replica, Caltrans	N/A
Sample output: Los Angeles	Willshire Boulevard between Santa Monica and Koreatown	25 – 30K average daily riders (2018)	Visualization of census tracts included in analysis 	850 – 950K	200 – 300K	75 – 80K	45 – 55K

1. Assume there is a uniform percentage reduction across state, but auto trip length varies based on Census tract
2. Assume that census tracts with no transit would not be able to add transit. Therefore, ~30% reduction in VMT to meet CARB goals not applied to all Census tracks.

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2023 – Jan. 2024; California Transit Speed Maps, California State Geoportal; US Census Bureau; The California Air Resources Board