



## Local Policy Maker Group (LPMG) Meeting

Meetings of the LPMG are conducted via teleconference only (no physical location).

Directors, staff and the public may participate remotely via Zoom at

<https://us06web.zoom.us/j/85925215034?pwd=L3pxeEVITTFrVjVIYWw3OW5wekw2dz09>

for audio/visual capability or by calling 1-669-219-2599, Webinar ID: # 859 2521 5034 Passcode: 973354 for audio only.

**Public Comments:** The Board Chair shall have the discretion to manage the Public Comment process in a manner that achieves the purpose of public communication and assures the orderly conduct of the meeting.

**Members of the public are encouraged to provide** public comments in the following ways:

- **Email:** Comments may be submitted by emailing [video@caltrain.com](mailto:video@caltrain.com) before each agenda item is presented. Please indicate in your email the agenda item to which your comment applies.
- **Auditory:** Oral comments will also be accepted during the meeting. Web users may use the 'Raise Hand' feature to request to speak. Callers may dial \*9 to request to speak. Each commenter will be notified when they are unmuted to speak.

**Thursday, January 26, 2023**

**5:30 p.m. – 7:30 p.m.**

### Agenda

1. Call to Order
2. Roll Call
3. Caltrain Staff Report (Oral Update and Memos)
4. Vice Chair Selection
5. Caltrain Electrification and Service Update (Presentation)
6. Caltrain Corridor Crossing Strategy (Presentation)
7. High-Speed Rail Staff Report (Oral Update and Memo)
8. Public Comments on items not on the agenda
9. LPMG Member Comments/Requests
10. Next Meeting
  - a. Thursday, February 23, 2023 at 5:30pm
11. Adjourn

*All items on this agenda are subject to action*

**CalMod Local Policy Maker Group (LPMG)  
Summary Meeting Notes November 17, 2022**

**Summary Notes**

The purpose of these notes is to capture key discussion items and actions identified for subsequent meetings.

**1. Call to Order**

Vice Chair Michael Salazar called the meeting to order at 5:32 p.m.

**2. Roll Call**

<b>City / County</b>	<b>Representative or Alternate</b>	<b>Present</b>
Atherton	R. Polito	
Belmont	T. McCune	
Brisbane	T. O'Connell	
Burlingame	E. Beach	x
Gilroy	R. Armendariz	x
Menlo Park	J. Wolosin	x
Millbrae	G. Papan	
Mountain View	M. Abe-Koga	
Morgan Hill	R. Constantine	
Palo Alto	P. Burt	x
Redwood City	M. Smith	
San Bruno	M. Salazar	x
San Carlos	R. Collins	
San Francisco	A. Sweet	
San Jose	S. Jimenez	
San Mateo	A. Lee	X
Santa Clara	A. Becker	
South San Francisco	E. Flores	
Sunnyvale	R. Melton	
San Francisco BOS	TBD	
San Mateo BOS	TBD	
Santa Clara BOS	TBD	
Chair	Jeff Gee	
Vice Chair	Michael Salazar	x

VACANT SEATS: Santa Clara BOS, San Francisco BOS, San Mateo BOS

CALTRAIN STAFF: Casey Fromson, Devon Ryan, Katie Scribner

HSR STAFF: Stephen Tu, Rebecca Tabor, Morgan Galli

### **3. Caltrain Staff Report**

Casey Fromson, Chief Communications Officer, stated that Michelle Bouchard has been appointed as the first woman and first permanent Executive Director for Caltrain. She spoke about Caltrain hosting the first Commuter Rail Coalition Summit in the country where commuter railroad executives from across the country came and discussed items of importance in San Jose. She gave an update on the state funding program called the Transit Intercity Rail Capital Program that includes a set aside for existing projects, such as the Caltrain Electrification Project, which could be awarded in January and could close the \$410m gap on the project. She also mentioned that in December there will be two weeks of different service changes, and there will continue to be service changes as it relates to the Electrification Project.

### **4. Caltrain Corridor Crossing Strategy**

Jill Gibson, Transportation Planner, Kimley Horn, and Sam Zimbabwe, Kimley Horn, introduced themselves and the presentation.

Jill gave a presentation which included the following:

- Agenda
- Strategy Inception and History
- What is the Corridor Crossing Strategy (CCS)?
- Why develop a crossings strategy?
- October Comments
- Concurrent Paths
- Project Delivery Approach

Sam Zimbabwe took over the presentation and presented the following:

- Program Strategy Approach
- Scenario Planning
- Scenario Planning Spectrum – Example
- Technical Exploration Topics
- Technical Exploration
- Monthly Topics and Milestones

Jill Gibson took the presentation back over:

- Engagement and Communications Approach
- External Stakeholder Groups
- Outreach Schedule
- Stakeholder Advisory Team (SAT)
- December CSCG/LPMG
- Project Update Template
- Looking Ahead

*LPMG members' and alternate members' key comments and clarifications with staff included the following:*

- A member commented on value engineering lessons learned from past projects that can save money for other projects, and that there needs to be more emphasis on value engineering for the greater good of the corridor.
- A member also commented on documenting lessons learned on past grade crossings.
- A member commented on program strategy, specifically funding, prioritization, and staging the different phases being the main focus. *Staff responded that the purpose of separating out the near-term project delivery from the larger strategy is because it is so important.*
- A member commented on certain design choices having community impacts and it needing to be a defined factor.

### **5. High-Speed Rail 2022 Sustainability Report**

Becca Tabor (CHSRA) introduced Meg Cederroth, Director of Planning and Sustainability, who presented the following:

- 2022 Sustainability Report
- Sustainability Policy
- Sustainability Report Topics
- Ambitious Goals
- Highlights - Environment
- Tier 4 Equipment Uptake
- Protecting Communities from Air Pollution
- Moving Toward Electric Construction
- Continuing Offset Activities
- Preserving Land and Creating Habitat
- Diverting Waste from Landfills
- Climate Adaptation Plan
- Highlights - Social
- Economic Development
- Benefits to California-Defined Disadvantaged Communities
- Engaging the Community to Identify Site Priorities
- 15-Minute Communities Around Stations
- Community Engagement Across the State
- Highlights – Governance
- Sustainability & System Advancement
- Informing & Evolving Our ESG Focus
- Framework for an Organized Sustainability Approach

*LPMG members' and alternate members' key comments and clarifications with staff included the following:*

- A member asked how much of the plan is driven by SB12-03 (6:37). *Staff responded that the plan is more than a decade old and focusing more on the materials that are being used in construction.*

- A member asked about a breakdown of calculations and avoidances of concrete manufacturing and that they thought it would be fundamental in the sustainability plan. *Staff responded that they require contractors to bring concrete to the table that is below potential global warming threshold and that it is very fundamental to the sustainability plan but may not be articulated in the report.*
- A member asked about what time period was being looked at for vehicular emissions. *Staff responded that they were looking at future greenhouse gas emissions.*
- A member asked about long term thoughts on infrastructure that could be built in to support underserved communities. *Staff responded that they have a Memorandum of Understanding with an organization called Semic which is focused on getting broadband access to a range of communities and that the High Speed Rail Right of Way is a great opportunity for liner infrastructure.*

#### **6. Public Comments on Items Not on the Agenda**

There were no public comments.

#### **7. LPMG Member Comments/Requests**

There were no member comments.

#### **8. Next Meeting**

Thursday, December 15, 2022 at 5:30pm

#### **9. Adjournment**

The meeting was adjourned at 6:49 p.m.



## Memorandum

**Date:** January 23, 2023

**To:** CalMod Local Policy Maker Group (LPMG)

**From:** Devon Ryan, Government and Community Affairs Officer

**Re:** Caltrain Electrification Project E-Update



### Caltrain Year in Review

Caltrain had many accomplishments in 2022, including the agency hiring Michelle Bouchard as its Executive Director, adopting a new governance model and making great strides in the electrification of the railroad, all while increasing ridership to double the previous year's levels. Caltrain is committed to continuing to improve its services in order to meet the needs of our riders. The New Year will see more milestones met for the electrification project, as well as more immediate improvements to the service.

[Learn more](#) and watch the Caltrain Electrification [Year in Review 2022 video](#).

### Caltrain Electrification Funding

In December, Congress passed the Consolidated Appropriations Act which contained \$43M for Caltrain's Electrification Project. Of the federal funding, \$10M was secured by U.S. Senator Dianne Feinstein and U.S. Senator Alex Padilla as a community project and \$33M was included as part of the Federal Transit Administration (FTA) Capital Investment Grant Program for projects with existing Full Funding Grant Agreements. We are deeply grateful to Senators Feinstein and Padilla, Speaker Emerita Pelosi, and our entire federal delegation for their support.

At the state level, Caltrain has applied to the Transit and Intercity Rail Capital Project Existing Projects

Category to fill its funding gap. We remain incredibly thankful for all of the support from our federal, state, county, and city leaders, community groups, businesses, and other organizations throughout the corridor. Award announcements are expected January 31, 2023.

[Learn more.](#)

### **Rail Vehicle Replacement Program**

On January 5, Caltrain applied to the FTA Rail Vehicle Replacement Grant Program for three new, high-performance electric trains to replace diesel locomotive trains and enhance the speed, capacity, safety and reliability of Caltrain’s system. These three electric trains would be in addition to the 19 electric trains already ordered as part of the Caltrain Electrification Project and would allow Caltrain to operate over 90% of its trips with electric, sustainable service. Replacing the remaining diesel fleet is part of our long-term vision to become a fully zero-emission rail corridor. We are very grateful for all of the support we received for this application from our federal and state leaders, community partners, and others. Award announcements are expected April, 2023.

[Learn more.](#)

### **Construction and Service Changes Plan**

Caltrain Electrification, which will provide passengers with greener, faster and more frequent service, is nearing its final phase as we anticipate electrified service to begin in 2024. In 2023, we need to do intensive work along the corridor to complete critical construction and testing activities. To minimize the impact on weekday service and to ensure the project is completed safely and on time, Caltrain will be suspending rail service in select areas on weekends throughout the year starting February 11.

We will have a full outreach plan to ensure customers are informed of any changes and will encourage passengers to use alternative transportation during these weekends. The first shutdown will be Feb 11-12 for the San Francisco to Millbrae section and we will be running a bus bridge for this section. More information will be shared in the coming days.



### **Caltrain MLK Celebration Train**

On January 16, Caltrain’s MLK Celebration Train made the trip up the Peninsula providing free train service

to the Martin Luther King Jr. Day March in San Francisco, organized in partnership with the Northern California Dr. Martin Luther King, Jr. Community Foundation.

[Learn more.](#)

## **PUBLIC MEETINGS:**

**JPB Board Meeting – February 2, 2023 at 9:00 a.m.**

For more details, and a full list of upcoming meetings, please visit [Caltrain.com/Meetings](https://caltrain.com/Meetings).

## **PROGRESS REPORT:**

The presentation on Caltrain Electrification progress presented at Caltrain's January 5, 2023 Board Meeting is [available here](#).

# Memorandum

**Date:** January 26, 2023

**To:** Local Policy Makers Group (LPMG)

**From:** Dahlia Chazan, Deputy Chief, Caltrain Planning

**Re:** Caltrain Corridor Crossings Strategy (CCS) Project E-Update



## Corridor Crossings Strategy (CCS) Description

The Corridor Crossings Strategy (CCS) has been discussed as an agency priority since 2019, when it was first identified within the Caltrain Business Plan Process. This strategy was first funded in 2019 but was delayed due to the COVID-19 pandemic. As Caltrain and other operators plan to increase rail services, Caltrain understands that a coordinated approach to grade separations or closures is needed to unlock regional mobility and safety benefits.

The Caltrain Business Plan acknowledges that grade separation projects are costly, complex, and challenging. The CCS strives to identify areas for enhancement in the current process and develop a potential strategic approach to deliver corridor-wide consensus on delivery of grade separation projects.

The CCS is divided into three phases: Initiation Phase, Phase I, and Phase II. The Initiation Phase started in July 2022 and finished in December 2022. This phase included the initial issue identification collected from Caltrain coordination, initial stakeholder engagement, and preliminary existing conditions gathering.

Phase I commenced in January 2023 and will end approximately in Winter 2023. Phase I takes the outputs from the Initiation Phase to provide an initial framework to organize the overall study, workplan, and stakeholder engagement process. The purpose of Phase I is to identify a shared vision for grade separations or closures along the corridor, including objectives and needs through extensive stakeholder engagement.

Phase II will begin after the completion of Phase I, once a shared vision is identified. Phase II will include a corridor-wide strategy and programmatic approach for the organization, project development, funding, and implementation of the vision.

## Phase I Progress

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Based on the initial stakeholder engagement as part of the Initiation Phase, the project approach will include the development of a user-friendly, website-based Crossings Delivery Guide to communicate roles and responsibilities, key design standards, and processes for grade crossing separation and closure projects. In addition to the Crossings Delivery Guide and in close partnership with the cities and stakeholders, the strategy will gather the ambitions of stakeholders to clarify and define a vision that balances the complex web of organizational, technical, and funding challenges that must be addressed for the vision to be realized.

Phase I is kicking off in January 2023 with presentations to the CSCG, LPMG, and other key stakeholder groups outlining baseline conditions and summarizing case studies of how agencies have approached grade separation projects and/or programs. These case studies were explored to establish a spectrum of program delivery scenarios/options as the baseline of the scenario planning exercise. The scenario planning exercise will consider various factors/technical topics through the different scenarios/options, weighing tradeoffs between each and identifying which outcome would best for program delivery of grade separations and closures.

## Public Meetings

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**Local Policy Makers Group Meeting – February 23 at 5:30 p.m.**

**Local Policy Makers Group Meeting – March 23 at 5:30 p.m.**

For more details, and a full list of upcoming meetings, please visit [Caltrain.com/Meetings](https://www.caltrain.com/Meetings).

## Progress Report

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The presentation on the Caltrain Corridor Crossings Strategy approach presented at Caltrain's November 17, 2022, LPMG Meeting is [available here](#). No meeting was held in December 2022.

# Caltrain Electrification Project Update

LPMG  
January 26, 2023



# Project Overview

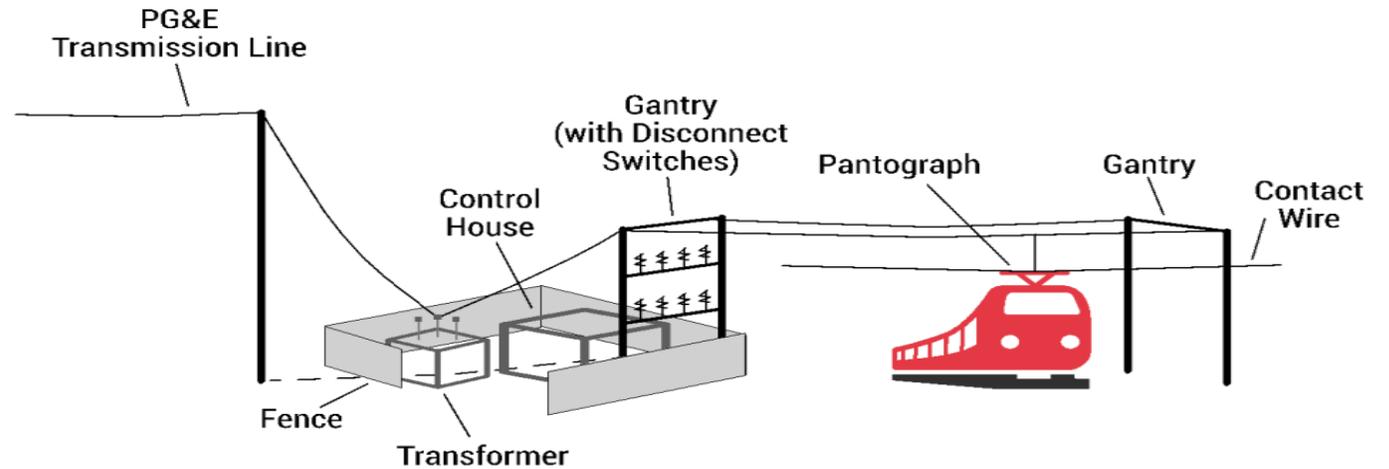
# Project Overview

- San Francisco to San Jose (Tamien Station)
- 51 miles
- Project Cost: \$2.44B
- Revenue Service: fall 2024



# Project Elements

- Electrification
  - Overhead Contact System (OCS)
  - Traction Power Facilities
  - Signal System
- Electric Trains
  - 19 7-car train sets (133 cars)
  - 75% replacement diesel fleet



*(Note: 96 cars funded by project; 37 cars funded by State TIRCP)*

# Project Benefits



Improved Train Performance,  
Increased Service and Greater Capacity

Improved Regional Air Quality and  
Reduced Greenhouse Gas Emissions



Job Creation Locally and  
Across the Country



Reduced Engine Noise  
Emanating from Trains



# Project Highlights

# Project Highlights

- Construction
  - Construction and Service Changes Plan
  - Successful completion of major signal software installation and testing in December
- Electric Trains
  - All 133 train cars now in production
  - Static testing continues on property
  - Electric train testing expected to start February in Santa Clara and San Jose

# Funding Status (Updated Need \$367M)

Federal (Recently received \$43M in Omnibus Appropriations Bill)

- \$33M from supplemental FTA Capital Investment Grants Full Funding Grant Agreement (FFGA) funding. \$10M “Community Project” funding from Senators Feinstein/Padilla.

State

- FY23 State Budget signed into law. \$900 - \$1.2B available for existing projects outside of S. California that meet certain criteria - Caltrain Electrification eligible. Announcement of awards expected January 31, 2023

# **Construction and Service Changes Plan**

# Construction and Service Changes Plan

- 2023
  - Construction completion
  - Infrastructure, signal system, and electric trains testing
  - Temporary service changes required
- 2024
  - Pre-revenue service testing
  - Simulated service runs
  - Operator training
  - Final acceptance & contract closeout
- Fall 2024 Passenger Service

# Overview

- Implement total of 31 weekend area shutdowns in 2023 to complete required testing and address top risks
  - Includes 4 weekends of full corridor shutdowns for end to end testing
- Benefits
  - Ensure Fall 2024 delivery of electrified service
  - Enhance safety by physically separating construction work and passenger service trains
  - Mitigate risk of overhead contact system construction delays due to low contractor productivity (top project risk)
  - Reduce Roadway Worker in Charge (RWIC) field resource need (top project risk)
  - Minimize impact to weekday passenger service by reducing weekday construction needs

# Customer Experience

# Customer Experience Overview

- Customer travel will be impacted
- Key considerations for service changes
  - Customer experience
  - Cost
  - Staff resources
  - Alternative travel options
- Bus bridge service to be implemented for San Francisco to Millbrae weekend shutdowns (Phase 1)
  - Staff to monitor bus bridge effectiveness for future phases

# February to July 2023 – Weekend Shutdowns

Area (Phase)	Work Activity	Weekends	Number of Weekends
San Francisco to Millbrae (Phase 1)	OCS Construction	February 11-12 February 25-26 March 4-5 March 11-12	4
Millbrae to Hillsdale (Phase 2)	OCS Construction	March 25-26 April 1-2	2
Belmont to Menlo Park (Phase 3)	OCS Construction	April 8-9 April 15-16	2
Menlo Park to Santa Clara (Phase 4)	Signal Installation OCS Testing System Integration Testing	April 22-23 April 29-30 May 5-6 May 13-14 May 20-21	5

- No service changes planned for weekends of February 18-19 or March 18-19 for signal install and equipment staging
- Temporary weekday service changes April 17-28 for signal installation and testing
- 2 contingency weekends in June and July

# Phase 1: San Francisco to Millbrae

- Between San Jose/Tamien and Millbrae stations, trains make all weekend local stops
- Customers traveling to/from San Francisco should use alternative transportation, including timed BART transfers at Millbrae
- Lifeline bus bridge available
  - Bike space very limited on buses
  - Buses are not ADA accessible - Passengers needing assistance will be accommodated by on-call paratransit service at affected bus bridge stations
- Service ends earlier to align with BART schedule:
  - The last northbound train will depart San Jose Diridon Station at 10:28p
  - The last southbound bus will depart San Francisco Station at 11:16p
  - The last southbound train will depart Millbrae Station at 12:15a

# August to December 2023

- Up to 16 weekend area shutdowns needed August to December 2023
  - Signal installation and testing
  - Electric train testing
  - Full corridor electric train runs
- Includes 4 weekends of full corridor shutdown in November for end-to-end testing
- Staff is working to refine plan and will provide update in Spring 2023

# Customer Outreach

- Full campaign
- Website Landing page
- Organic social  
(Twitter, FB, IG, Nextdoor, TikTok)
- Paid digital and print ads
- Email blasts
- Mobile app alerts
- Visual messaging signage at stations
- Onboard and station announcements
- Press release
- Amplify message via elected officials, cities, counties
- Updates to key stakeholders, business groups
- Outreach to event venues
- Station ambassadors

FOR MORE INFORMATION

[WWW.CALTRAIN.COM](http://WWW.CALTRAIN.COM)





# *Corridor Crossings*

STRATEGY





# AGENDA

- **Program** Refresher
- **Baseline Conditions** Refresher
- **Case Study** Summary
- **Look Ahead**

# Meeting Goals and Outcomes



**Feedback and input on  
program aspirations**



**Feedback on  
case study content**



This icon represents additional information provided in the Appendix for your reference.



This icon represents feedback is requested on content. However, questions and feedback are encouraged throughout presentation.

# Program *Refresher*

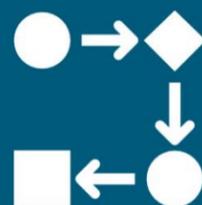


**Corridor Crossings**  
STRATEGY



# What is the Corridor Crossing Strategy (CCS)?

- A stakeholder engaged process that seeks consensus on a shared vision and a corridor-wide, programmatic approach for the following:
  - ✓ Organization
  - ✓ Delivery
  - ✓ Funding
  - ✓ Implementation of grade separations and closures
- Identifies how grade separations and closures fit into the future of the Caltrain and UPRR corridor
- ***Note: Active grade separation projects will continue in parallel***



# Outcomes



## Project Delivery Opportunities

Communicate roles, responsibilities, processes, and standards for individual projects.

*Outcome: Crossings Delivery Guide*



## Program Strategy Development

Develop a shared, corridor vision with an incremental and implementable approach for regional benefits resulting in broader funding opportunities.

*Balance vision with implementable action plan*

*Outcome: Program Vision and Strategy*

# Timeline



# Phase I Engagement Schedule

	2023											
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>Local Policy Maker Group</b>	●	●	●	●	●	●	●	●	●	●	●	●
<b>City/County Staff Coordinating Group</b>	●	●	●	●	●	●	●	●	●	●	●	●
<b>Project Partner Group</b>	●	●	●	●	●	●	●	●	●	●	●	●
<b>JPB Advocacy and Major Projects*</b>			●				●		●		●	
<b>Joint Powers Board</b>				●				●		●		●
<b>General Manager Group</b>			●			●			●			●
<b>Stakeholder Advisory Team</b>			●			●			●		●	
<b>Citizens Advisory Committee</b>			●			●			●		●	
<b>Bicycle and Active Transportation Advisory Committee</b>			●			●			●		●	

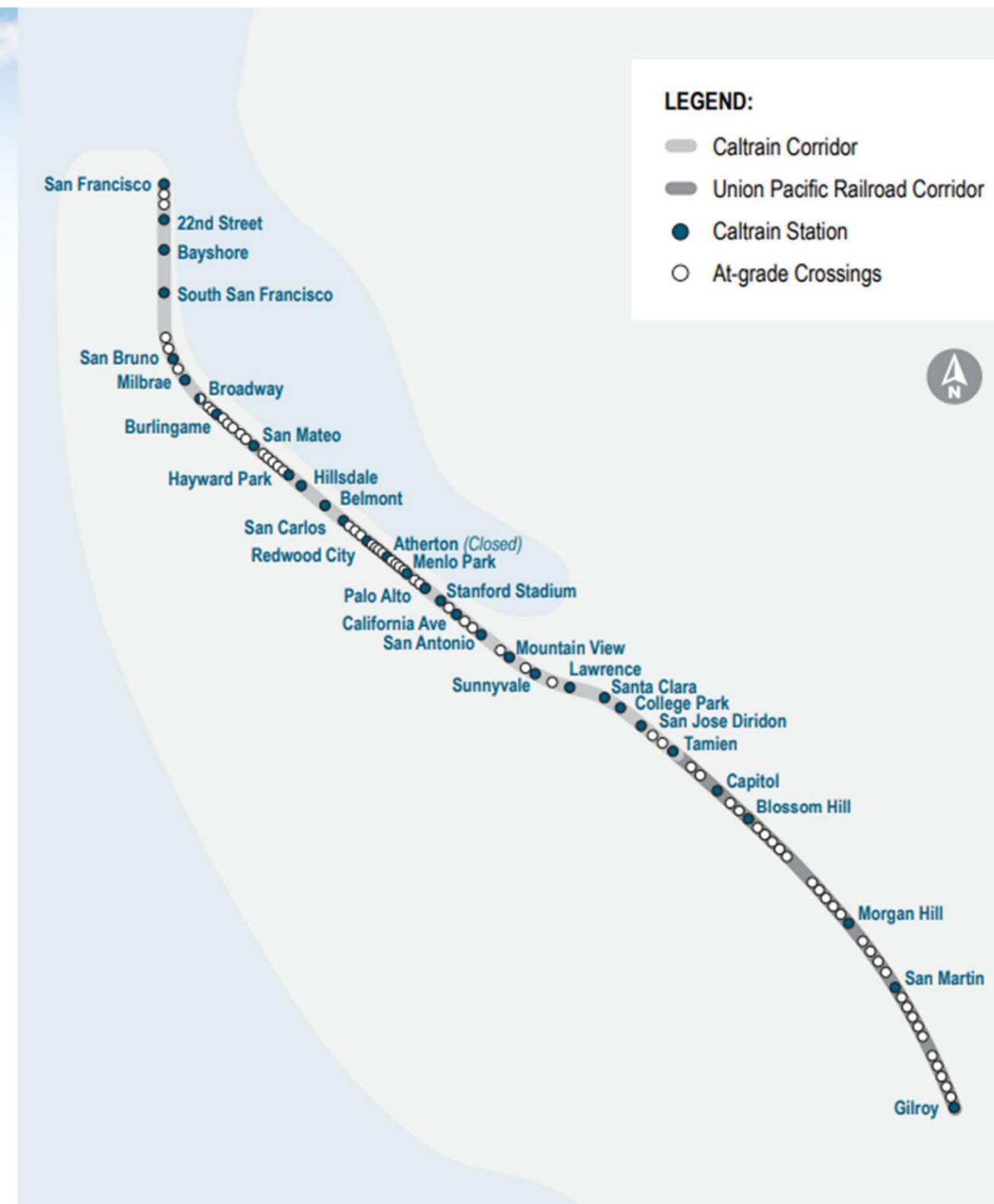
\*JPB Subcommittee

# Baseline Conditions *Refresher*



# Baseline Conditions

- **Current (2022) At-Grade Crossings**
  - ✓ 43 crossings on Caltrain corridor
    - 41 vehicular
    - 2 pedestrian
  - ✓ 28 crossings on Union Pacific Railroad (UPRR) corridor
- **In peak traffic, 4 Caltrain trains currently run per hour in each direction (2022)**
- **Currently implemented on project-by-project basis and funding is largely first come, first serve**
- **Cities are responsible for project identification, inception, and funding**



# Active Projects

- **14 active grade separation, closure, and undercrossing projects (displayed in table)**

\*Castro Street: Crossing Closure and Construction of New Bike/Ped Undercrossing

\*\*Middle Avenue: New Bike/Ped Only Undercrossing

\*\*Bernardo Avenue: New Bike/Ped Only Undercrossing

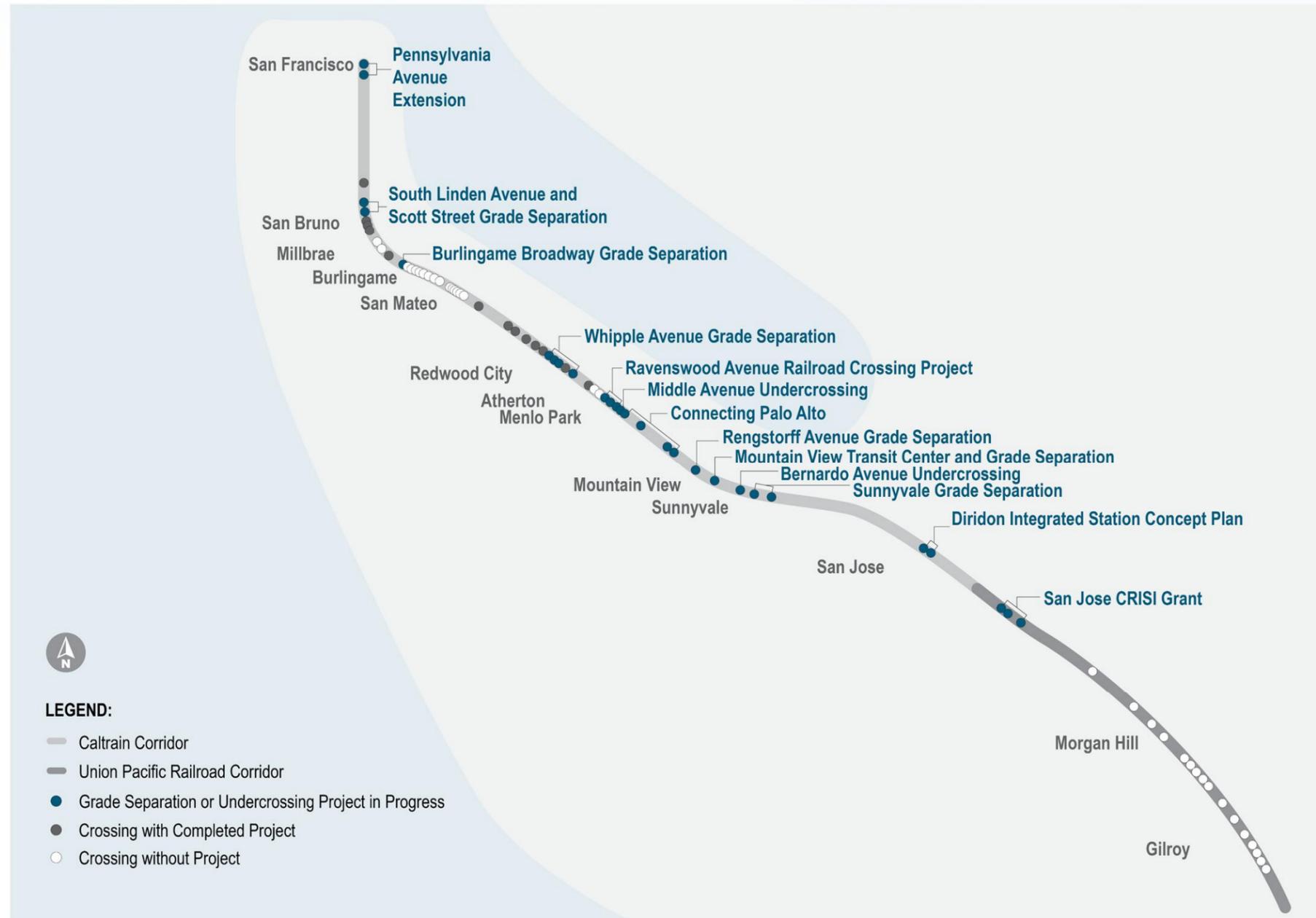
- **3 active at-grade crossing projects**

- **8 completed grade separation projects**

COUNTY	PROJECT NAME	CROSSING STREET	PROJECT STAGE		
			PLANNING	ENVIRO.	DESIGN
San Francisco	Pennsylvania Avenue Extension	<ul style="list-style-type: none"> <li>• Mission Bay Dr</li> <li>• 16th St At 7th</li> </ul>	✓		
San Mateo	South Linden Avenue and Scott Street Grade Separation	<ul style="list-style-type: none"> <li>• S Linden Ave</li> <li>• Scott St</li> </ul>			✓
	Burlingame Broadway Grade Separation	<ul style="list-style-type: none"> <li>• Broadway</li> </ul>			✓
	Whipple Avenue Grade Separation	<ul style="list-style-type: none"> <li>• Whipple Ave</li> <li>• Brewster Ave</li> <li>• Broadway</li> <li>• Maple St</li> <li>• Main St</li> <li>• Chestnut St</li> </ul>	✓		
	North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study	<ul style="list-style-type: none"> <li>• 5th Avenue</li> </ul>	✓		
	Ravenswood Avenue Railroad Crossing Project	<ul style="list-style-type: none"> <li>• Encinal Ave</li> <li>• Glenwood Ave</li> <li>• Oak Grove Ave</li> <li>• Ravenswood Ave</li> </ul>	✓		
	Middle Avenue Undercrossing**	<ul style="list-style-type: none"> <li>• Middle Ave</li> </ul>	✓		
Santa Clara	Connecting Palo Alto	<ul style="list-style-type: none"> <li>• Palo Alto Ave</li> <li>• Churchill Ave</li> <li>• Meadow Dr</li> <li>• Charleston Rd</li> </ul>	✓		
	Rengstorff Grade Separation	<ul style="list-style-type: none"> <li>• Rengstorff Ave</li> </ul>			✓
	Mountain View Transit Center and Grade Separation*	<ul style="list-style-type: none"> <li>• Castro St</li> </ul>			✓
	Mary Avenue Grade Separation	<ul style="list-style-type: none"> <li>• N Mary Ave</li> </ul>	✓		
	Sunnyvale Avenue Grade Separation	<ul style="list-style-type: none"> <li>• N Sunnyvale Ave</li> </ul>	✓		
	Bernardo Avenue Undercrossing**	<ul style="list-style-type: none"> <li>• Bernardo Ave</li> </ul>	✓		
	Diridon Integrated Station Concept Plan	<ul style="list-style-type: none"> <li>• Auzerais Ave</li> <li>• West Virginia St</li> </ul>	✓		
	Southern San José Grade Separations Project	<ul style="list-style-type: none"> <li>• Skyway Dr</li> <li>• Branham Ln</li> <li>• Chynoweth Ave</li> </ul>	✓		

\*Crossing Closure and Construct Bike/Ped Only Crossings \*\*Bike/Ped Only Crossings

# Active Grade Separation/Closure Projects



# Active Grade Separation Projects - *San Francisco County*

City	Project Name	Crossing Street	Description	Stage	Estimated Completion*
San Francisco	Pennsylvania Avenue Extension	Mission Bay Dr	Study of potential tunnel alignments to remove existing rail crossings at Mission Bay Drive & 16th Street.	Planning	Initiation Study – July 2022 Design & Construction – 12-15 Years
		16th St At 7th			

*\*Note: The estimated completion is subject to procurement of funds.*

# Active Grade Separation Projects - San Mateo County

City	Project Name	Crossing Street	Description	Stage	Estimated Completion*
South San Francisco and San Bruno	South Linden Avenue and Scott Street Grade Separation	S Linden Ave Scott St	Studying the creation of grade separations at the railroad crossings at South Linden Avenue in South San Francisco and Scott Street in San Bruno.	Design	Design – April 2027 Construction – June 2031 Closeout – Jan. 2032
Burlingame	Burlingame Broadway Grade Separation	Broadway	Caltrain in cooperation with the City of Burlingame, is separating the train tracks from the road at Broadway. A new Broadway Station with updated amenities will also be constructed.	Design	Design – Jan. 2024 Construction – April 2028 Closeout – Dec. 2028
Redwood City	Whipple Avenue Grade Separation	Whipple Ave	Studying the feasibility of separating all existing at-grade crossings in Redwood City.	Planning	Final Conceptual Study – Sept. 2022 Construction – 8-10 years
		Brewster Ave			
		Broadway			
		Maple St			
		Main St			
San Mateo	North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study	5th Avenue	Exploring alternatives for a new grade separated pedestrian and bicycle crossing between 5th Avenue, and potential bicycle and pedestrian improvements on local streets.	Planning	Planning – March 2024
Menlo Park	Ravenswood Avenue Railroad Crossing Project	Encinal Ave	Evaluating the engineering feasibility of replacing the existing at-grade crossings of the railway by building grade separations.	Planning	Design – Dec. 2026 Construction – Nov. 2029 Closeout – Aug. 2030
		Glenwood Ave			
		Oak Grove Ave			
		Ravenswood Ave			
	Middle Avenue Undercrossing	Middle Ave	Construction of a grade separated pedestrian and bicycle rail crossing under the railway.	Planning	Design – June 2023 Construction – Sept. 2027

\*Note: The estimated completion is subject to procurement of funds.

# Active Grade Separation Projects - Santa Clara County

City	Project Name	Crossing Street	Description	Stage	Estimated Completion*
Palo Alto	Connecting Palo Alto	Palo Alto Ave	Evaluating alternatives for a preferred rail grade separation.	Planning	On Hold
		Churchill Ave		Planning	Final Conceptual Study – Summer 2023
		Meadow Dr			
		Charleston Rd			
Mountain View	Rengstorff Grade Separation	Rengstorff Ave	Proposal to depress the intersection of Rengstorff Avenue and Central Expressway to separate the train from vehicle, pedestrian and bicycle traffic on Rengstorff Avenue.	Design	Design – June. 2025 Construction – Feb. 2028
	Mountain View Transit Center and Grade Separation	Castro St	Project includes a new ramp to redistribute traffic to Shoreline Blvd, closure of rail crossing, construct pedestrian undercrossings, and expand Caltrain Platforms	Design	Design – July 2024 Construction – Dec. 2026
Sunnyvale	Mary Avenue Grade Separation	N Mary Ave	Project to lower the roadway and create an undercrossing at Mary Avenue to go beneath the Caltrain tracks.	Planning	Environmental – 2024 Design – 2026 Construction – 2028 Closeout – 2029
	Sunnyvale Avenue Grade Separation	N Sunnyvale Ave	Project to lower the roadway and create an undercrossing at Sunnyvale Avenue to go beneath the Caltrain tracks.	Planning	TBD
	Bernardo Avenue Undercrossing	Bernardo Ave	Project to provide a separated pedestrian and bicycle pathway beneath the Caltrain railroad tracks and Central Expressway.	Planning	Environmental – 2023 Design – 2025 Construction – 2028
San José	Diridon Integrated Station Concept Plan	Auzerais Ave	Effort to plan for the expansion and redesign of San José Diridon Station, and its integration with the surrounding community.	Planning	TBD
		West Virginia St			
	Southern San José Grade Separations Project	Skyway Dr	Preliminary engineering, design, and environmental review for grade separations between the rail line and road.	Planning	Planning – Dec. 2023 Design – Nov. 2024 Construction - TBD
		Branham Ln			
Chynoweth Ave					

\*Note: The estimated completion is subject to procurement of funds.

# Active Grade Separation Projects



Feedback and input on  
active projects

# Case Study *Summary*



# Case Studies

## GOAL

Understand how other agencies have approached grade separation projects/programs and to identify the possibilities

### Peer Agencies include:



METRO  
LINK



### Elements of exploration for each case study include:

- Delivery approach
- Organizational model
- Prioritization and responsibility
- Funding types

# Metrolink



- Public transportation system operated by Southern California Regional Rail Authority (SCRRA)
  - > 5 member-county transportation authorities
- SCRRA is a joint powers authority created in 1991 to plan, design, construct, maintain, and administer the operation of Metrolink regional commuter rail service.



**457**  
Crossings



**407**  
Miles of Tracks

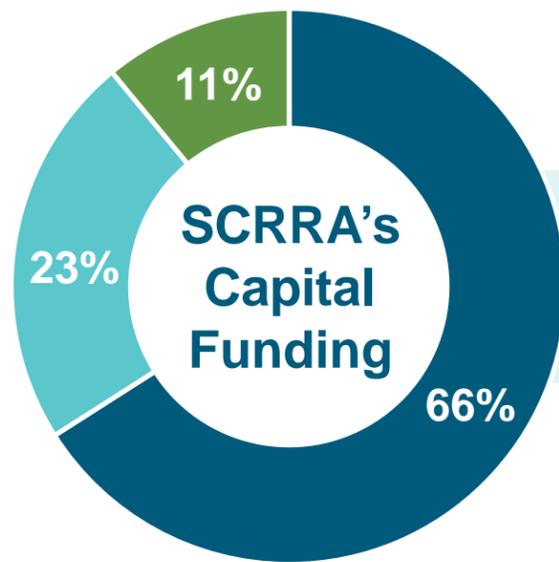


**250,000**  
Weekday Riders



Metrolink System Map

# Metrolink



Majority of state funds come from Section 190 Program, funding highway agencies to separate and/or public highway-rail grade crossings.

State Federal Local

- Individual projects addressed on case-by-case basis as initiated by the local jurisdictions
- County's transportation authority owns ROW and implements projects to completion
- No established prioritization framework for addressing grade separation projects



Sand Canyon Avenue Grade Separation – Irvine, CA

# Alameda Corridor East Project



- Established by San Gabriel Valley Council of Governments (SGVCOG) in 1998 as a single-purpose construction authority to implement a construction program intended to **mitigate vehicle delays and collisions at rail-highway crossings**.

- This rail corridor facilitates UPRR freight cargo to and from the ports of **Los Angeles and Long Beach**, carrying **16% of all oceangoing containers in the US**.

- Train traffic is expected to increase by 150% by 2050

**35+**  
Miles of Tracks



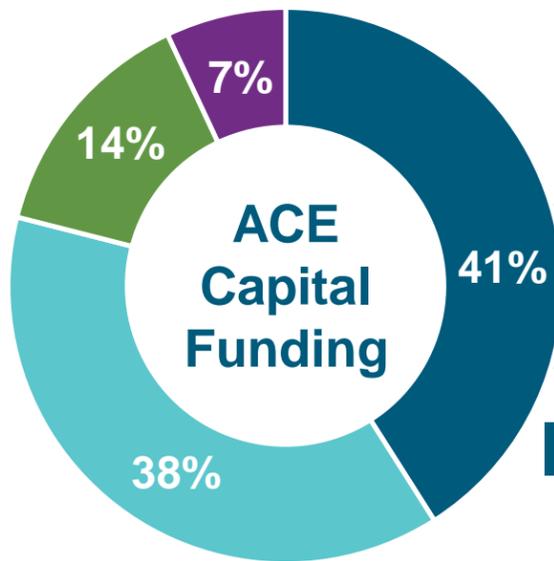
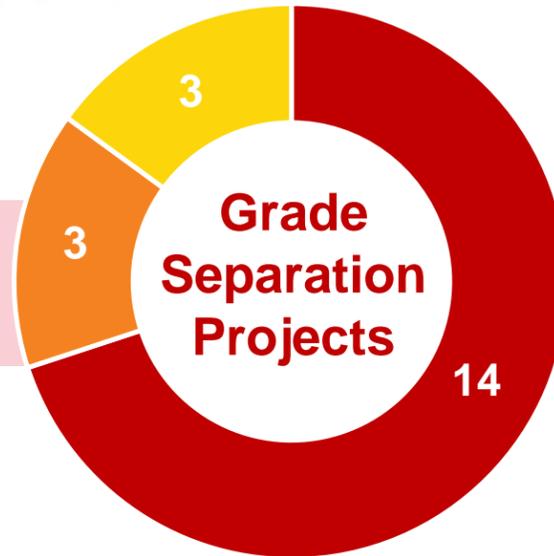
ACE Project Corridor

# Alameda Corridor East Project



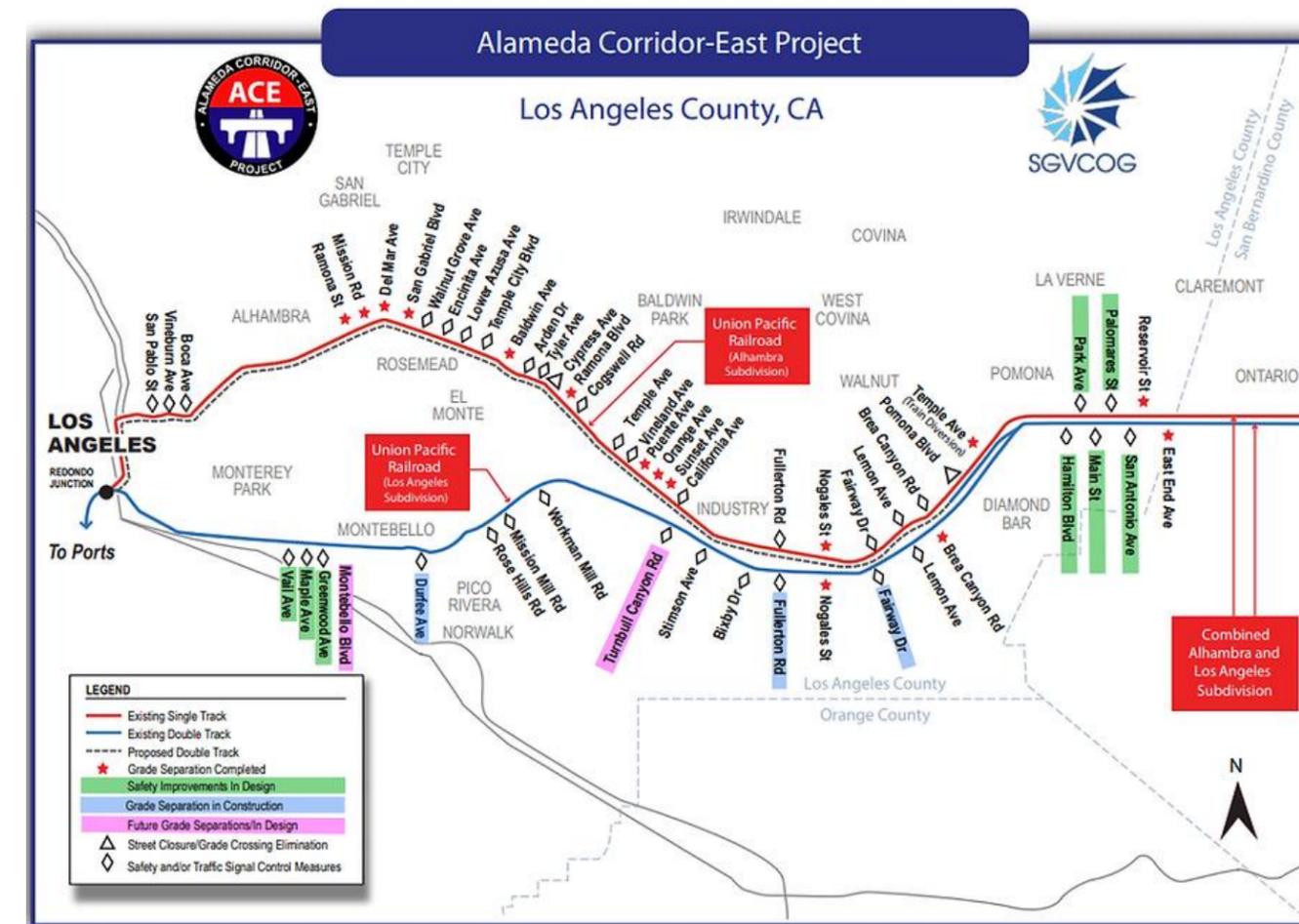
**Complete** **Construction** **Design**

1997 Feasibility Study identified the need to eliminate over 20 at-grade crossings.



Funding was pursued for the entirety of the program, and projects were initiated as funds became available.

**Regional** **State** **Federal** **Other**



ACE Project Status Map

Projects were organized by priority (high or low), cost (high or low), timeline (near- or long-term), and geography (proximity to one another).

# Long Island Rail Road



- Long Island Rail Road (LIRR) operates under the umbrella of the Metropolitan Transportation Authority (MTA) in the New York City metro area.
- **LIRR is the busiest commuter railroad in North America**



**700+**  
Miles of Tracks

**300,000**  
Weekday Riders

**735**  
Daily Trains

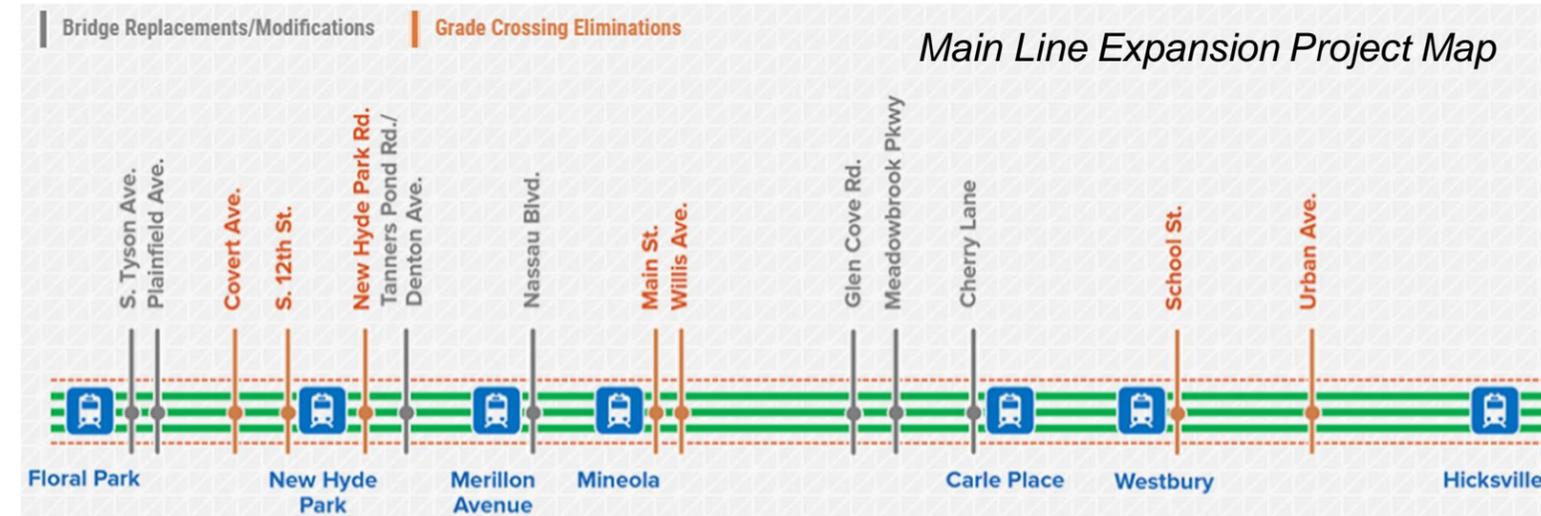
**11**  
Different Branches

# Long Island Rail Road



Main Line Expansion project began in 2018 and will be completed by 2023, consisting of:

- ✓ 9.8 miles of new third track
- ✓ Elimination of eight at-grade crossings
- ✓ Modifications to seven rail bridges
- ✓ Installation of sound and retaining walls
- ✓ ADA improvements and enhanced stations
- ✓ New substations, parking facilities, landscaping, and more



Project Cost: **\$2.6 billion**  
Largely funded through MTA's capital program budget and long-term MTA debt

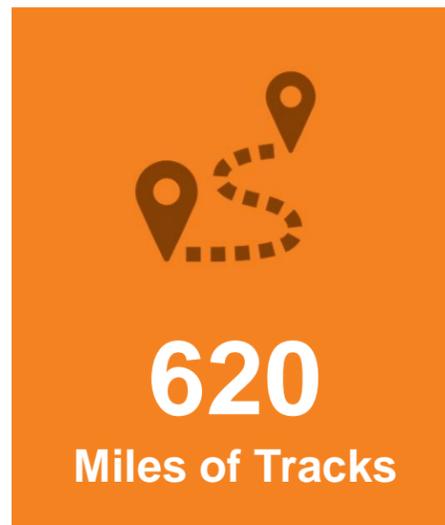
# Melbourne Level Crossing Removal Project



- Metro Trains is a state-run train network that operates throughout the greater Melbourne metro area.



Melbourne Train Network



- Level Crossing Removal Project (LXRP) was established in 2015 to **eliminate 50 at-grade crossings across Melbourne by 2022**
  - Also included new train stations, track duplication, and train stabling yards

# Melbourne Level Crossing Removal Project



- Program expanded to include a total of **110 level crossing removals by 2030.**
  - 67 level crossings have been removed so far
- Funding from state sources via funding packages.
  - Projects are grouped by priority, assessing need based on **movement, place, safety, and delivery efficiency.**
- Unique procurement approaches (alliance contracting) and government backing proved to accelerate the program's execution of removal projects.

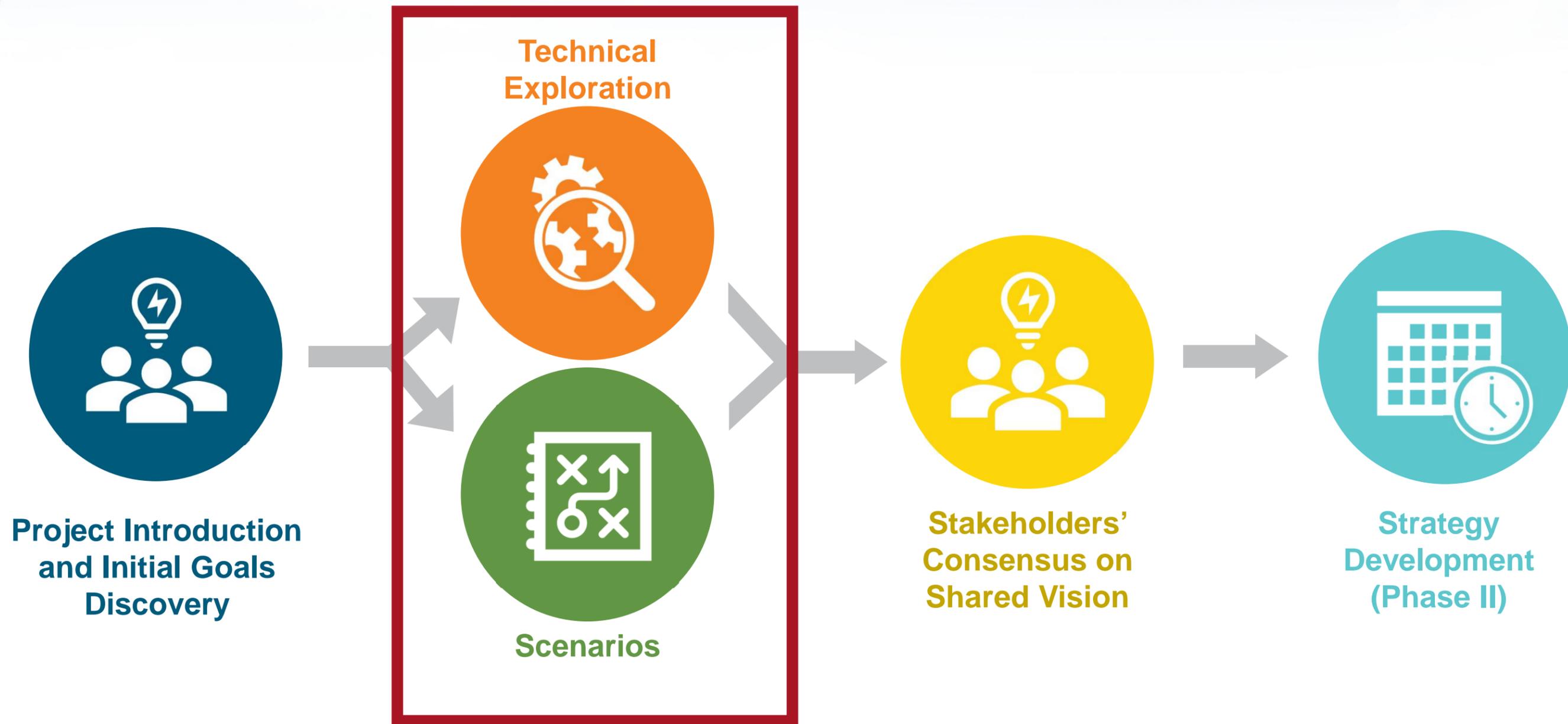


*Redeveloped Station Area in Melbourne*

# Case Study Comparison

Case Study	At-Grade Crossings Addressed	Primary Funding Sources	Implementation Lead	Timeframe
MetroLink/SCRRA	Project-by-Project	State + Federal (Local secondary)	County Transportation Authority	Not set (as funding available)
Alameda Corridor East (ACE)	20	Regional + State (Federal + Other secondary)	Single-Purpose Construction Authority	Started in 1998, final projects in design
Long Island Rail Road (LIRR)	8	MTA Capital Funds	LIRR	Construction began 2018, complete 2023
Melbourne, Australia	110 (Initially 50)	Federal + Regional	Level Crossing Removal Authority	Began 2015, anticipated complete in 2030

# How Case Studies Relate to Draft Vision



# Scenario Spectrum

## Scenario A: Independent Projects



- Project-by-project approach/management
- Local funding plan
- Aspirational goal, but no timeline
- Current approach for Caltrain

## Scenario B: Coordinated Projects



- Regionally coordinated approach to corridor funding
- Interjurisdictional communication about resources and schedule
- Coordinated corridor project delivery
- Aspirational goal with timeline

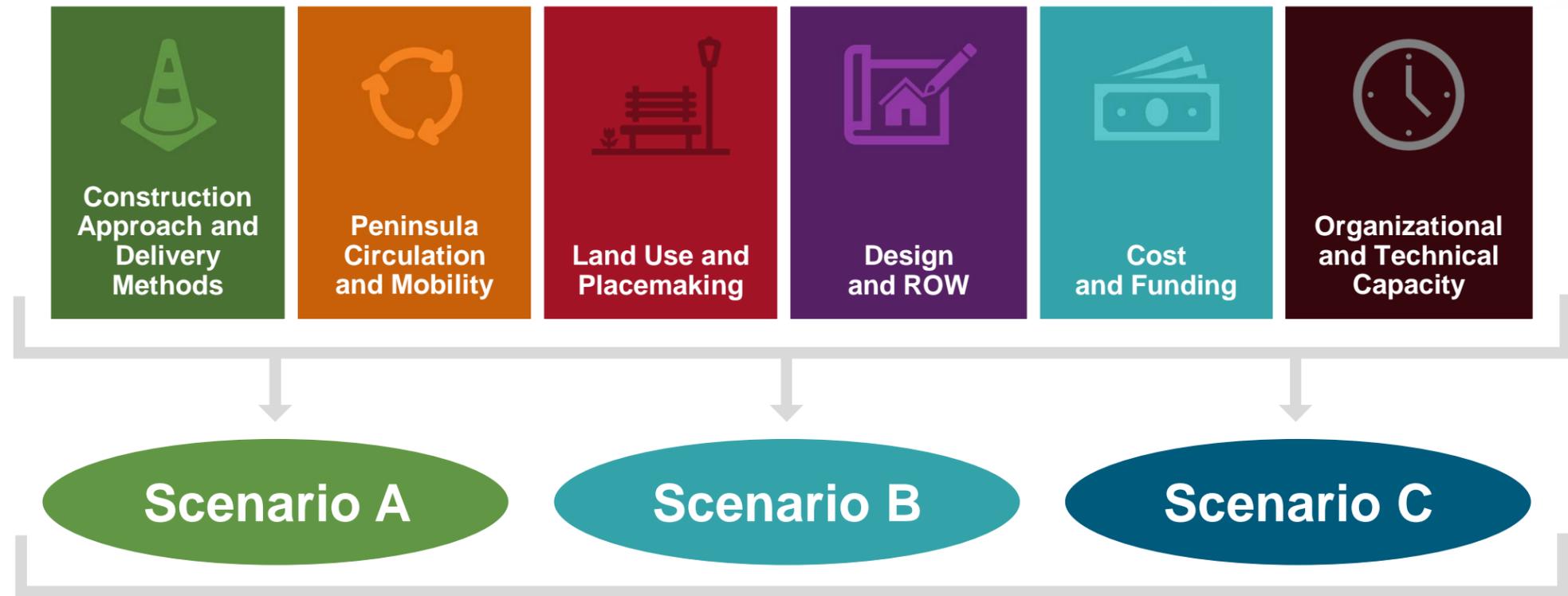
## Scenario C: System-wide



- Transparent and consistent methodology
- Robust and centralized project delivery
- Corridor-wide and regional funding
- Consistent project champion
- Aggressive goal with timeline

# Scenario Planning

Technical Exploration



Scenarios

Stakeholders' Consensus on Shared Vision



# Discussion

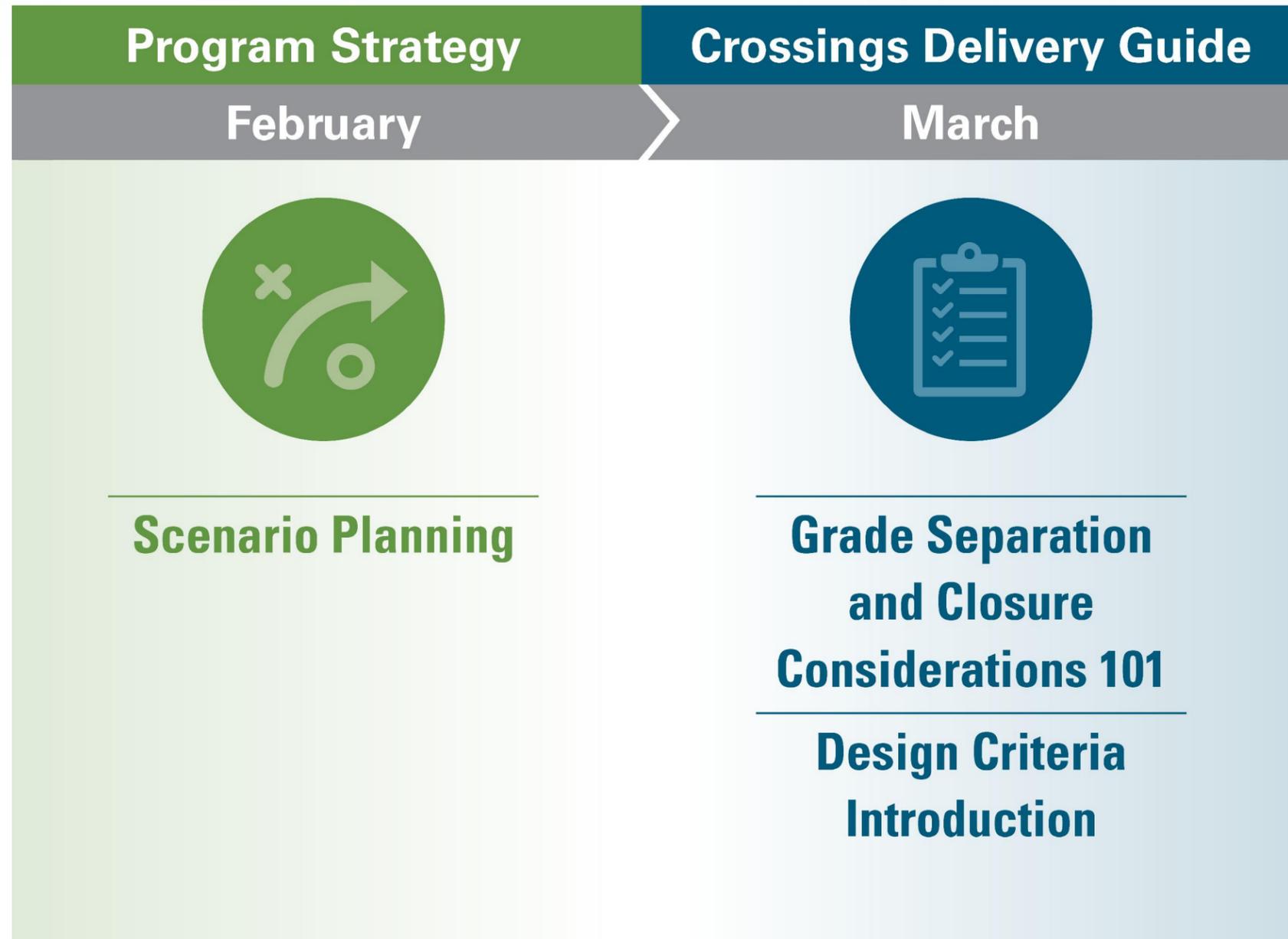




# Questions

- What aspects of program scenarios do you think are most important for cities?
- Which case study do you think is most relevant to the CCS?
- What element of the case studies do you think is most relevant (funding, implementation, timeframe)?
  - Should any additional elements be considered?
- As we work toward a consensus vision, how would you define success?
- Any other feedback or questions about the presentation content?

# 2-Month Look Ahead





# *Corridor Crossings*

STRATEGY



**APPENDIX**



# DRAFT\*

## *Baseline Conditions*

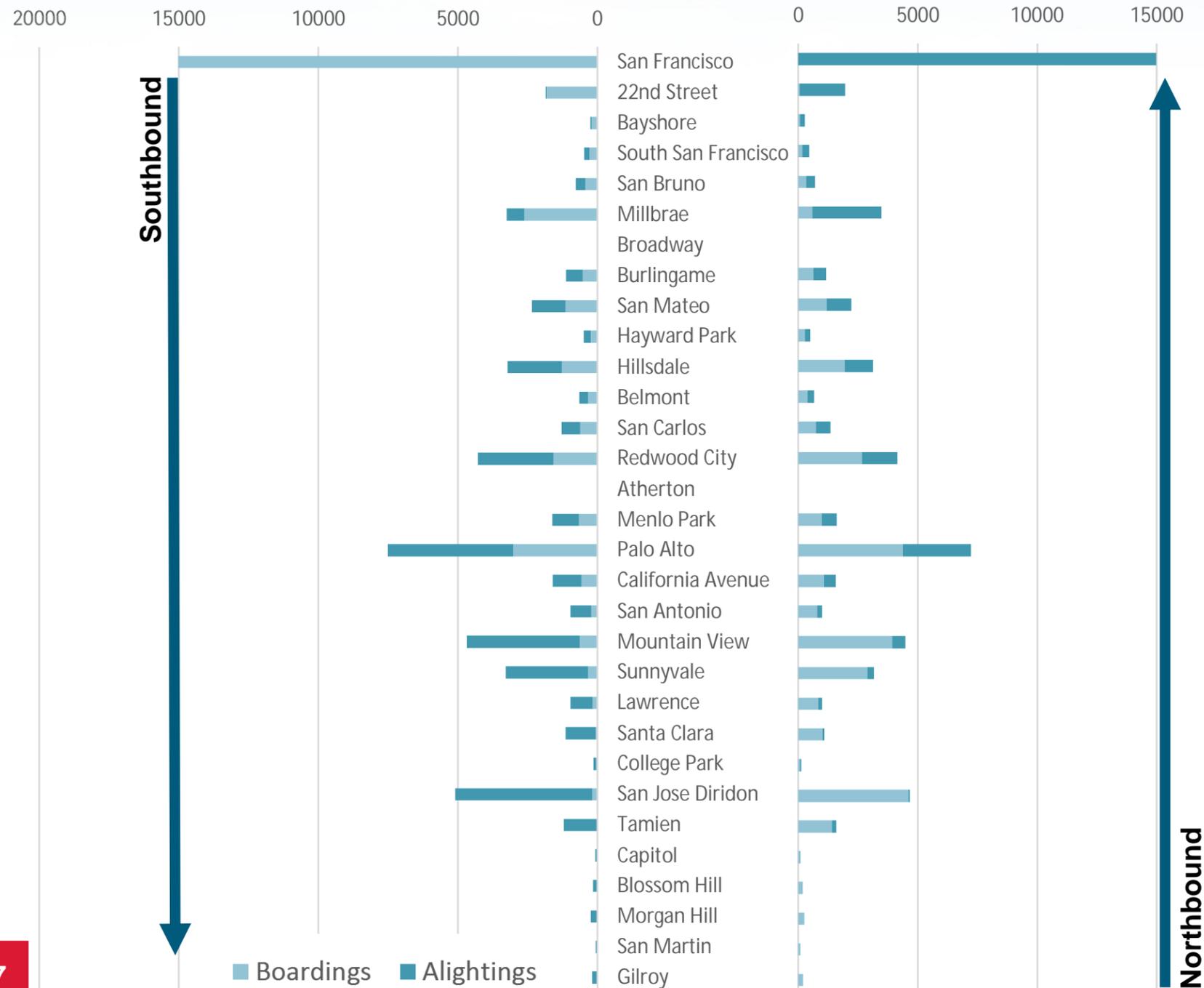
*\*In process of obtaining additional baseline data to include more current information for some data sets as well as additional data categories.*



# Baseline Conditions Discovery

- **High level overview of circulation, mobility, land use, and placemaking baseline data discovery**
  - Caltrain ridership by station
  - Daily traffic volume on roads intersecting at-grade crossings
  - Collision data
    - Transportation Injury Mapping System (TIMS)
    - Federal Rail Administration (FRA)
  - Population demographics within 1 mile of Caltrain corridor
    - Population and employment
    - Equity priority communities
    - Vulnerable populations
- **Baseline conditions discovery sets the foundation for future technical topics**

# Ridership at Caltrain Stations



## Average Passenger Counts by Train, Weekdays during Peak Period (2019)

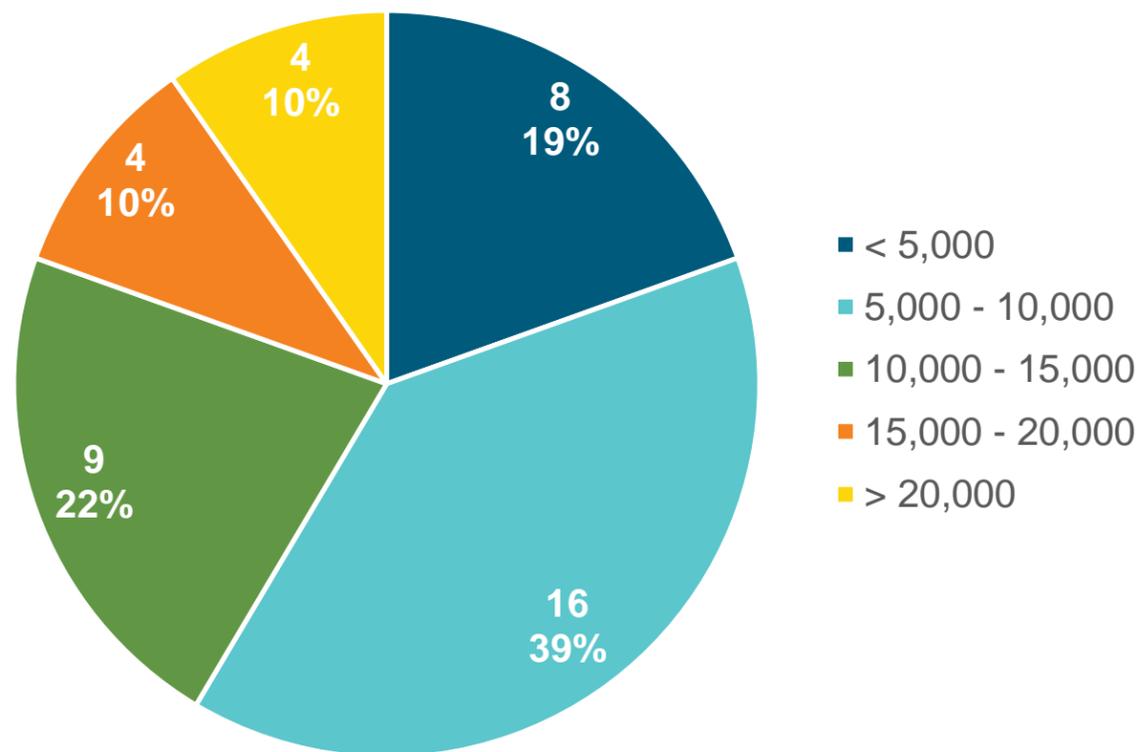
Source: Caltrain

### Stations with Highest Ridership

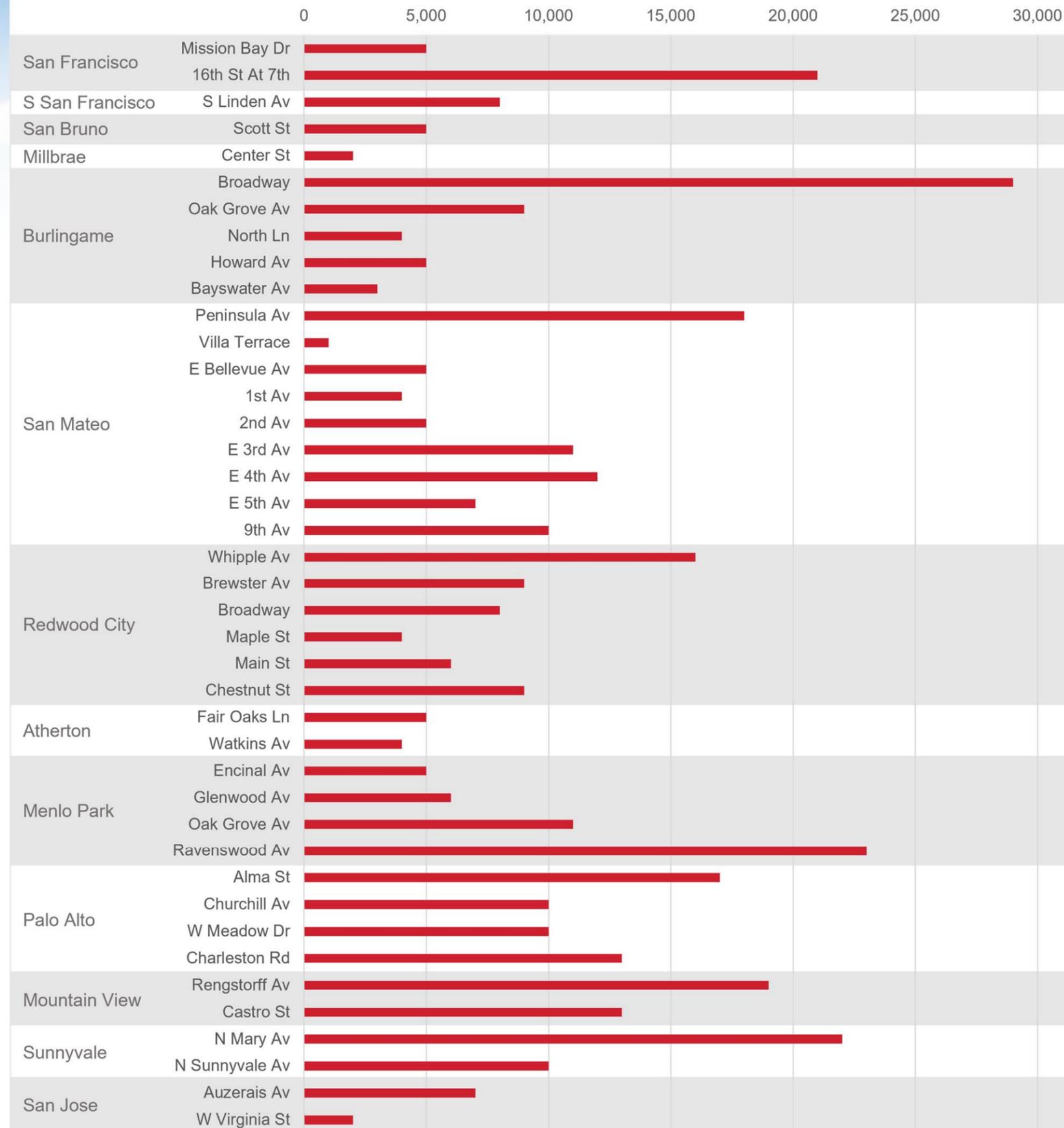
Location	Boardings	Alightings
San Francisco	15,027	14,984
Palo Alto	7,384	7,351
San Jose Diridon	4,795	4,965
Mountain View	4,560	4,606
Redwood City	4,220	4,214

# Volumes on Roads Intersecting At-Grade Crossings (North | Caltrain ROW)

Daily Traffic Volumes Summary

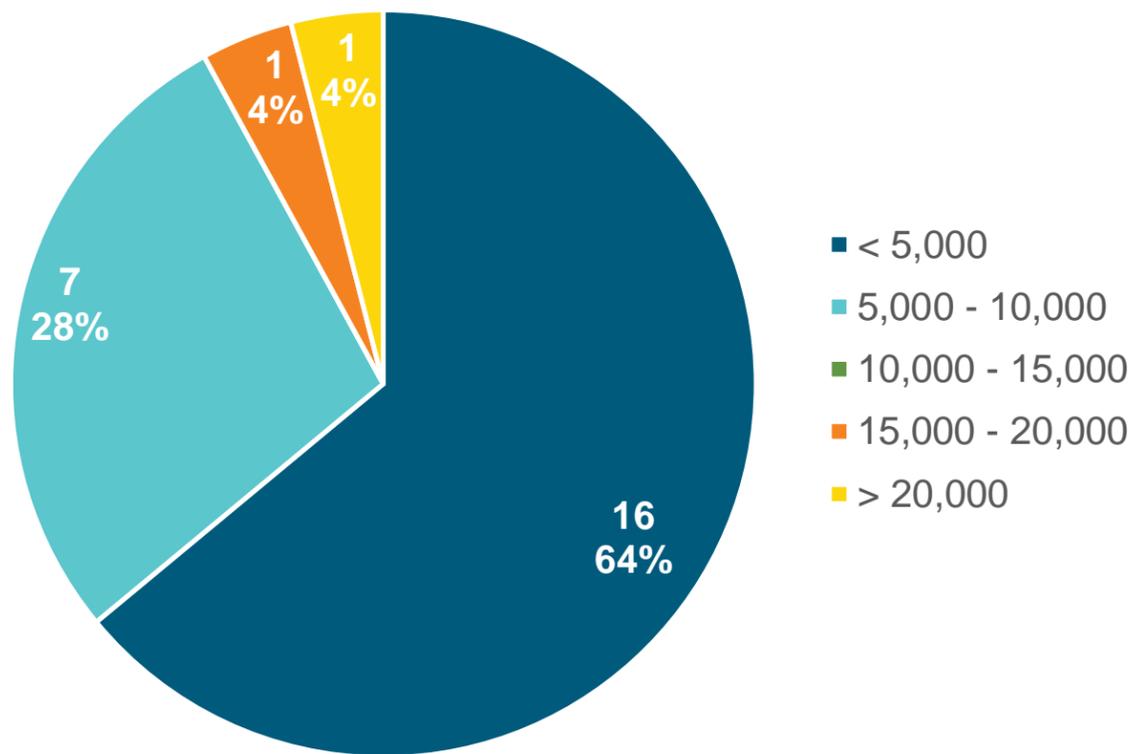


Source: Caltrain Business Plan (2018)

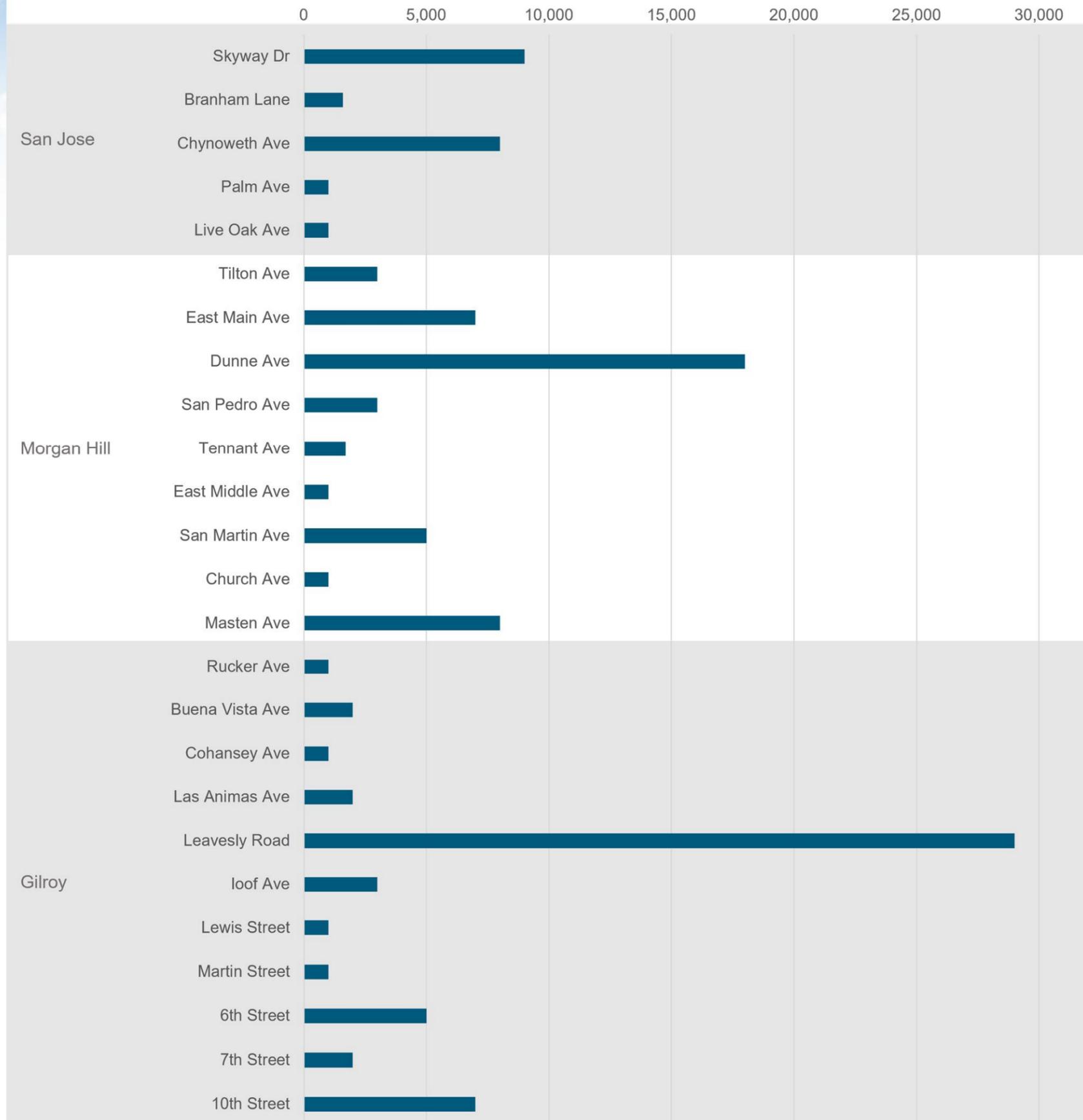


# Volumes on Roads Intersecting At-Grade Crossings (South | UPRR ROW)

Daily Traffic Volumes Summary

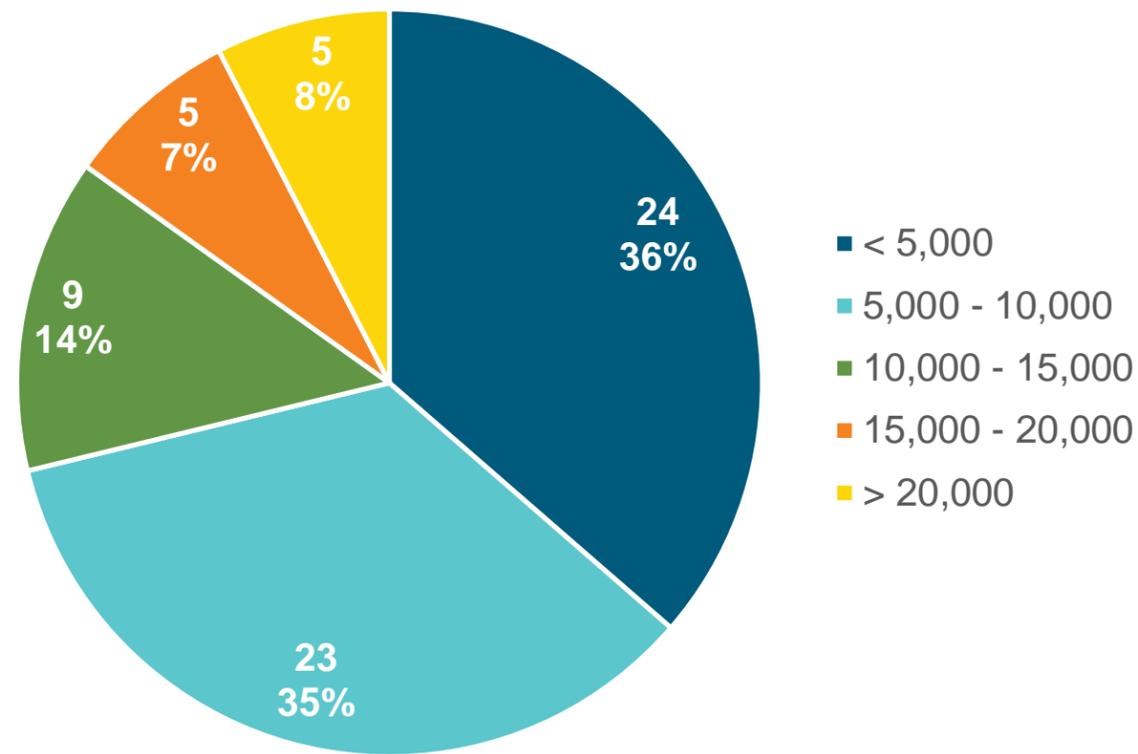


Source: Replica model volume (2019)



# Volumes on Roads Intersecting At-Grade Crossings (Full Corridor)

Daily Traffic Volumes Summary



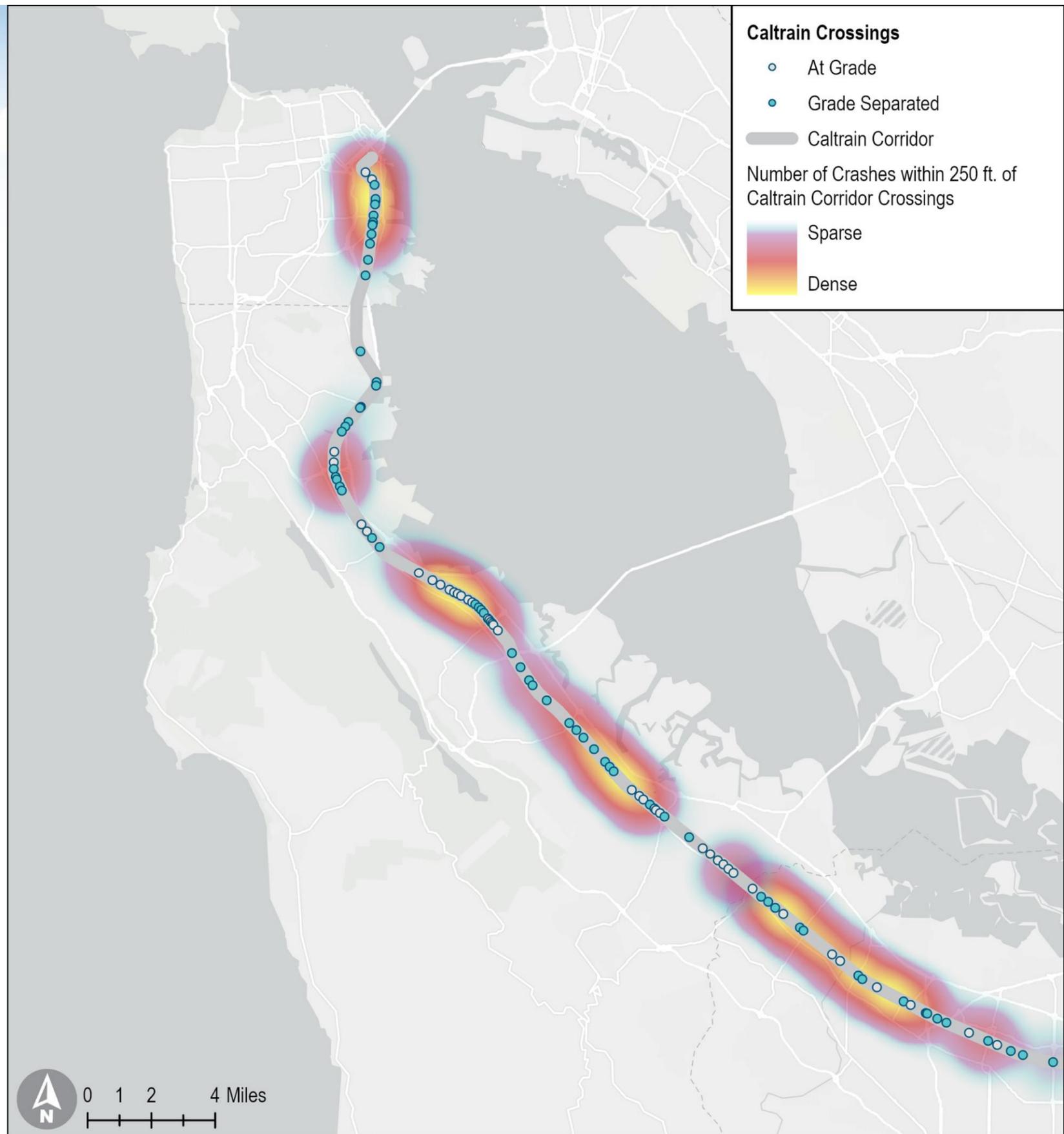
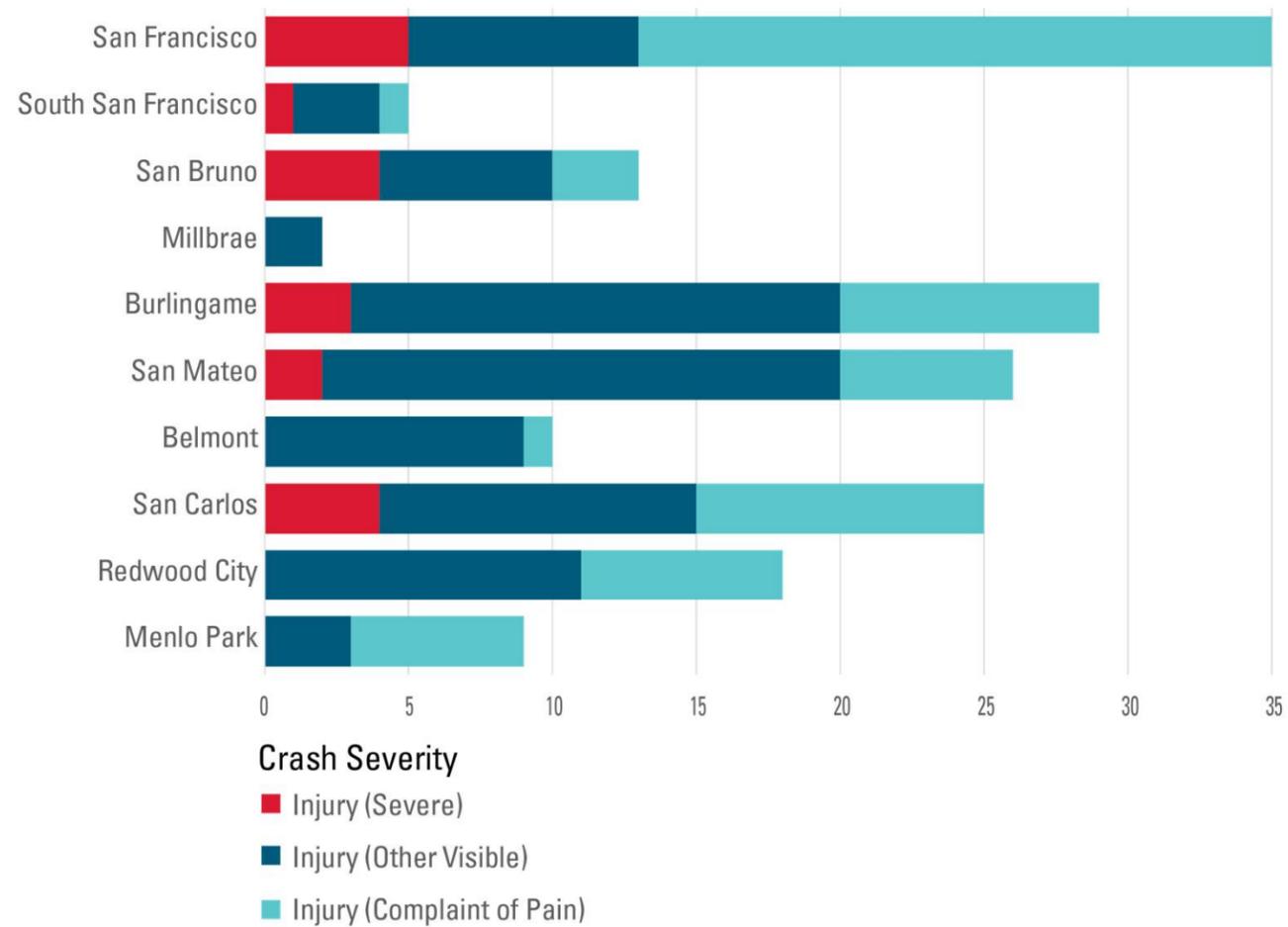
Source:  
 Caltrain ROW = Caltrain Business Plan (2018)  
 UPRR ROW = Replica Model Volumes (2019)

Roads with Highest Daily Volume

City	Road	Average Daily Volume
Burlingame	Broadway	25,000 – 30,000
Gilroy	Leavesly Road	25,000 – 30,000
Menlo Park	Ravenswood Avenue	20,000 – 25,000
Sunnyvale	N Mary Avenue	20,000 – 25,000
San Francisco	16 <sup>th</sup> Street	20,000 – 25,000
Mountain View	Rengstorff Avenue	15,000 – 20,000
Morgan Hill	Dunne Avenue	15,000 – 20,000
San Mateo	Peninsula Avenue	15,000 – 20,000
Palo Alto	Alma Street	15,000 – 20,000
Redwood City	Whipple Avenue	15,000 – 20,000

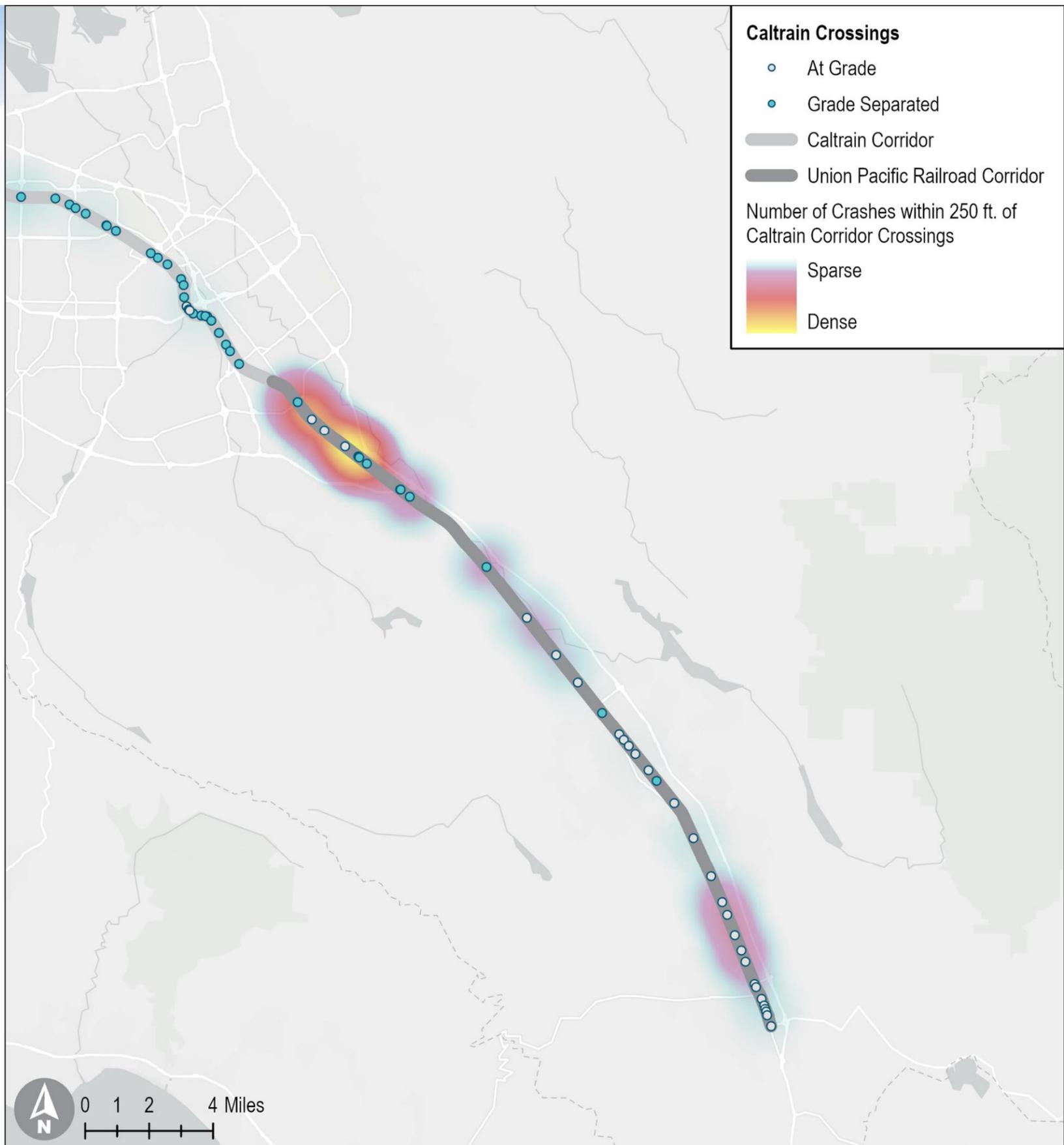
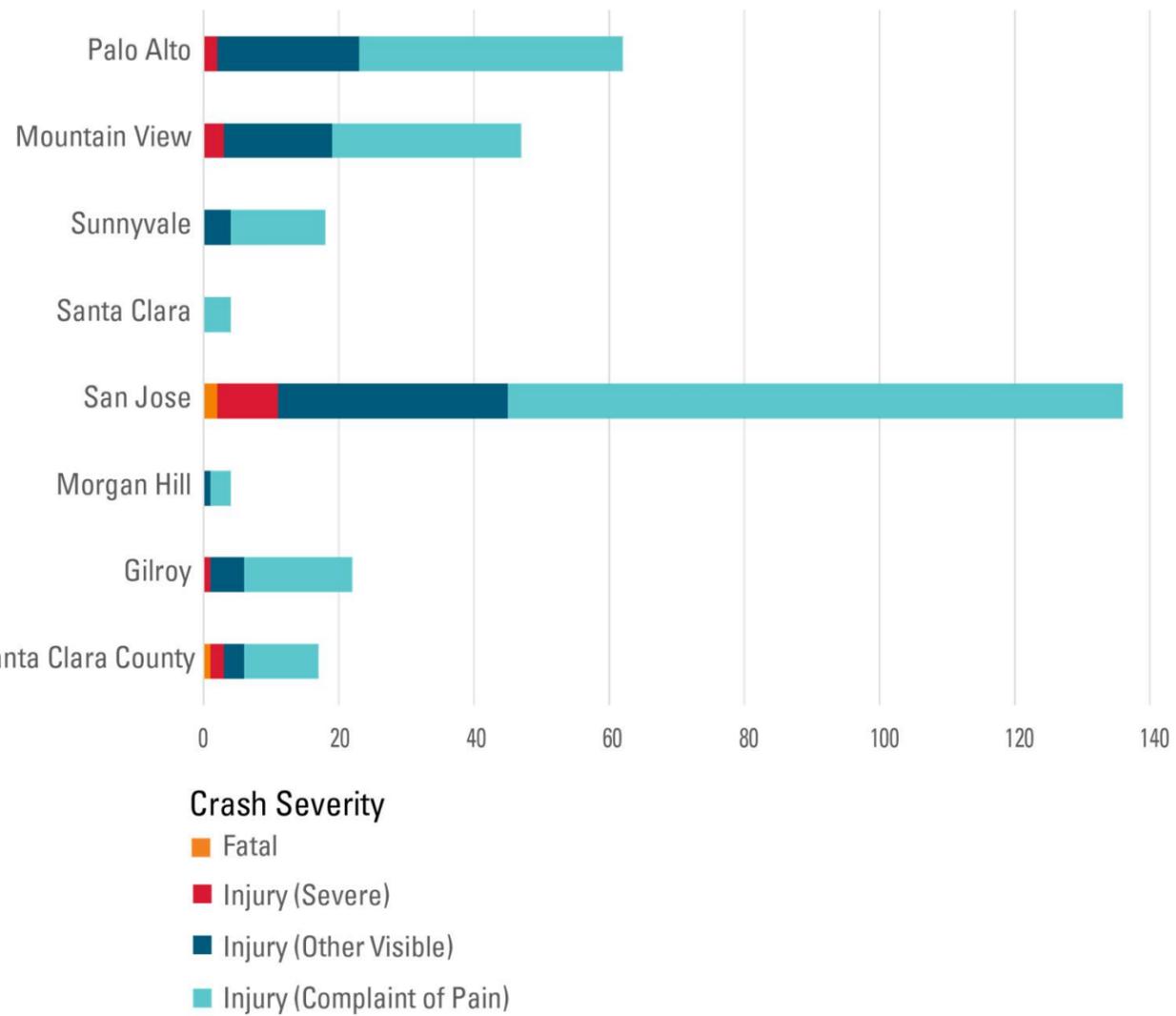
# Baseline Collision Data: TIMS 2017-2021 (North)

Number of Crashes Within 250 feet of Caltrain Corridor Crossings

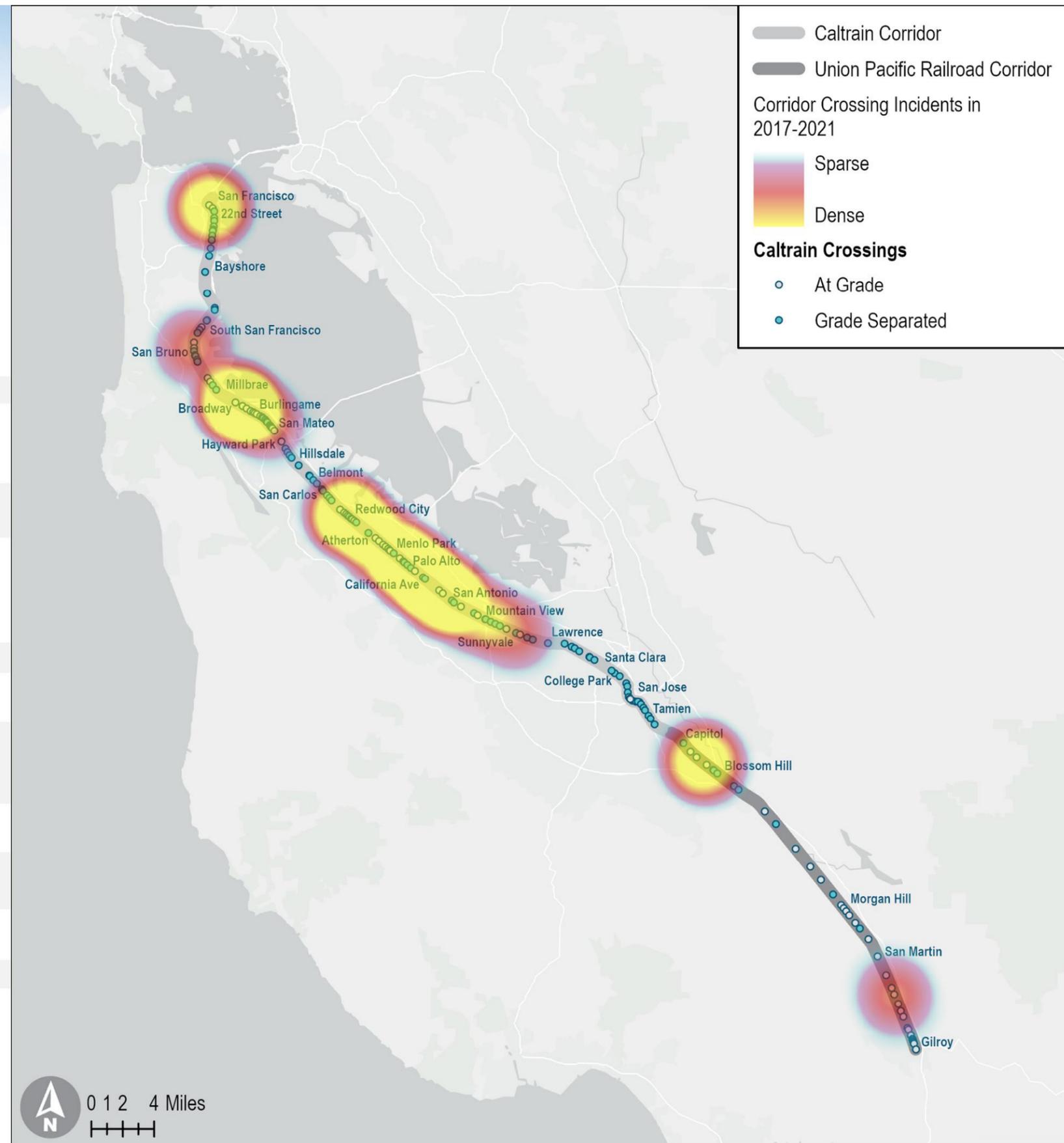
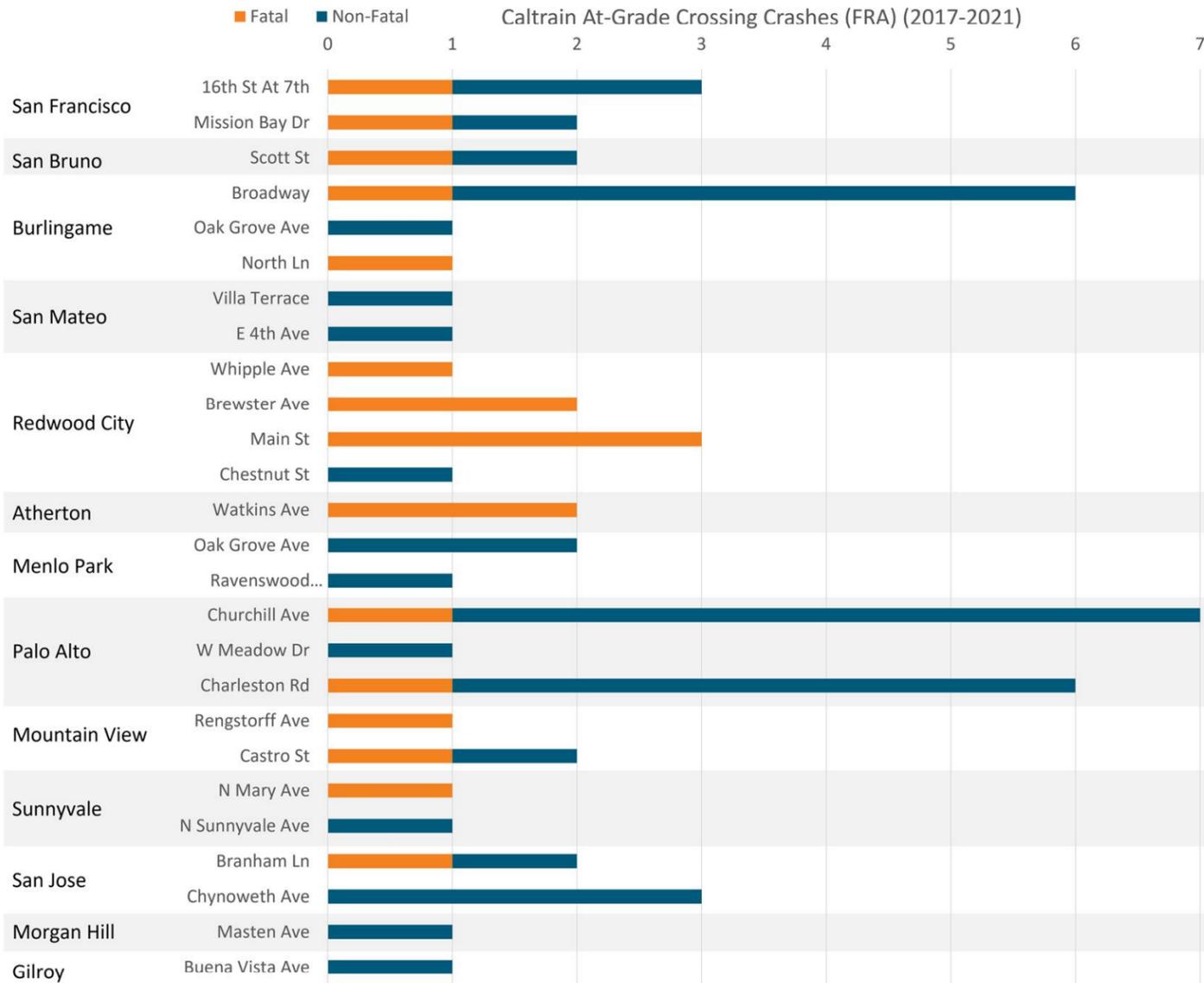


# Baseline Collision Data: TIMS 2017-2021 (South)

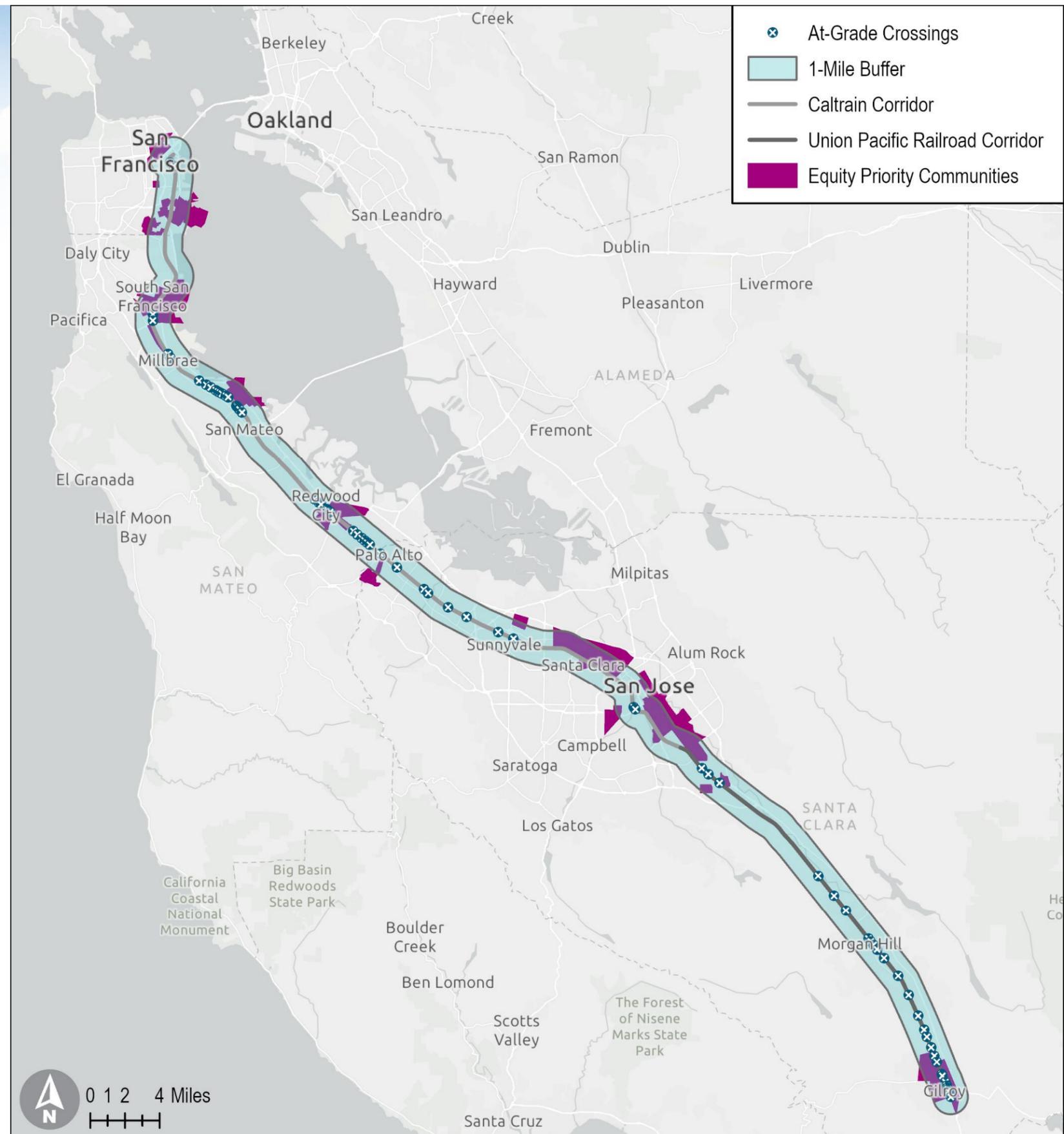
Number of Crashes Within 250 feet of Caltrain Corridor Crossings



# Baseline Collision Data: FRA 2017-2021



# Baseline Population Demographics (Within 1 mile of Caltrain Corridor)



# Baseline Population Demographics by City (Within 1 mile of Caltrain Corridor | North)

City	Total Jobs	Total Population	Number of Equity Priority Communities (Tracts)	Total Population of Persons 75 Years and Older	Total People of Color Population	Total Low-Income Population	Total Zero-Vehicle Household Population
San Francisco	366,781	215,448	26	12,322	157,051	65,331	32,234
Daly City	865	4,173	0	279	3,909	911	106
Brisbane	6,677	5,182	0	296	3,008	669	78
South San Francisco	60,021	37,700	3	2,634	29,987	9,611	1,032
San Bruno	14,702	24,409	1	1,261	16,909	4,853	432
Unincorporated San Mateo	12,704	34,396	2	2,002	20,235	7,657	309
Millbrae	5,465	22,703	0	2,297	14,930	2,601	459
Burlingame	33,404	31,291	0	2,105	14,058	3,894	802
Hillsborough	681	11,439	0	1,085	4,709	570	70
San Mateo	41,858	96,385	4	7,027	56,021	19,552	1,765
Foster City	87	6,614	0	402	4,102	384	42
Belmont	4,729	20,412	0	1,621	9,107	1,925	349
San Carlos	17,399	28,874	0	2,113	9,040	2,431	398

Source: Equity Priority Communities - Plan Bay Area 2050 (MTC Open Data Published 6/18/2020)

# Baseline Population Demographics by City (Within 1 mile of Caltrain Corridor | South)

City	Total Jobs	Total Population	Number of Equity Priority Communities (Tracts)	Total Population of Persons 75 Years and Older	Total People of Color Population	Total Low-Income Population	Total Zero-Vehicle Household Population
Redwood City	55,802	62,204	5	2,619	40,211	18,951	1,582
Atherton	2,255	7,185	0	698	2,156	431	29
Menlo Park	11,188	21,914	0	1,546	6,496	2,421	400
Palo Alto	66,155	63,150	0	5,748	29,479	6,774	1,726
Unincorporated Santa Clara	15,458	100,615	2	4,945	56,360	16,252	1,813
Los Altos	3,951	18,300	0	1,507	7,336	1,319	261
Mountain View	48,705	70,228	0	3,597	39,440	12,048	1,862
Sunnyvale	42,750	95,375	1	4,550	67,121	14,557	2,506
Santa Clara	60,597	78,182	1	3,633	50,619	16,151	1,324
San Jose	137,681	301,288	20	12,773	210,164	76,570	7,384
Morgan Hill	16,295	18,868	0	895	10,756	4,057	230
Gilroy	15,245	40,592	5	1,824	30,904	13,427	716

Source: Equity Priority Communities - Plan Bay Area 2050 (MTC Open Data Published 6/18/2020)

# Active *Crossing Projects*



# City of Mountain View



- **Project Name:** Rengstorff Avenue Grade Separation
- **Project Phase:** Design & ROW
- **Timeline:**
  - **Design Completed By:** June 2025
  - **Construction Completed By:** February 2028



# City of Mountain View



- **Project Name:** Transit Center Grade Separation and Access Project
- **Project Phase:** Design
- **Timeline:**
  - **Design Completed By:** July 2024
  - **Construction Completed By:** December 2026



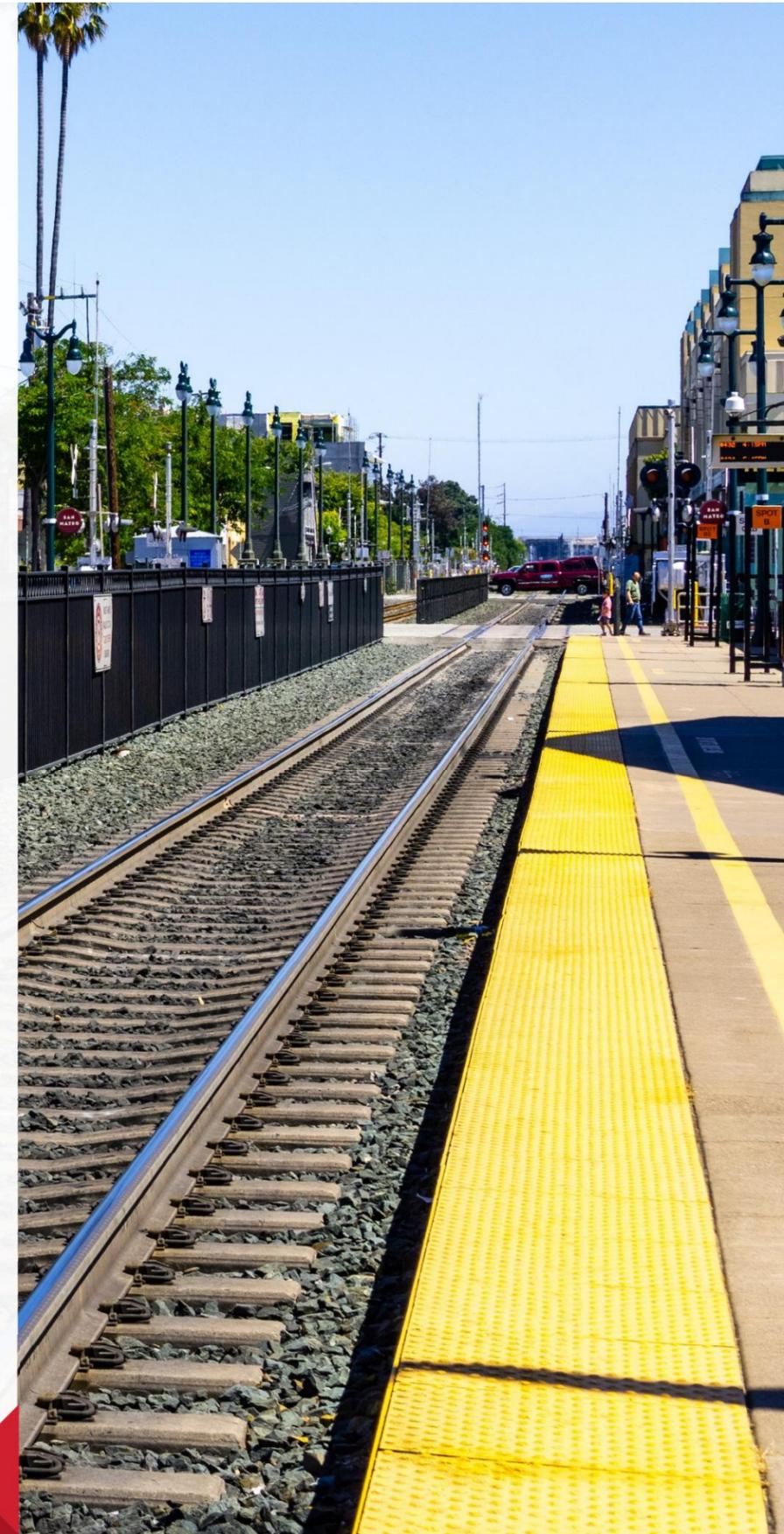
# Active At-Grade Crossing Projects

## San Mateo County

- **Quad Gates & Pavement Markings**
  - 4<sup>th</sup> and 5<sup>th</sup> Avenues (San Mateo)
    - April 2024 completion
  - Watkins Avenue (Atherton)
    - May 2024 completion

## Santa Clara County

- **Pedestrian Facility Improvements**
  - Churchill Avenue (Palo Alto)
    - June 2023 completion



# Completed Grade Separation Projects

Local transit authorities have directly paid for the majority of grade separation costs the recent grade separation projects along the corridor. This funding has been instrumental in leveraging state and local funding sources to make up the balance of project needs.

Crossings (City)	Date Completed	Local TA	Other	Total
Oyster Point (South San Francisco)	1994	45%	55%	\$24.2
Millbrae Ave. (Millbrae)	1996	55%	45%	\$24.0
Ralston/Harbor/Holly (Belmont and San Carlos)	2000	61%	39%	\$99.6
Brittan/ Howard (San Carlos)	1995	49%	51%	\$23.0
Jefferson Ave. (Redwood City)	1999	57%	43%	\$14.2
Fifth Ave. (North Fair Oaks)	1995	59%	41%	\$17.0
San Bruno/ San Mateo / Angus (San Bruno)	2014	62%	38%	\$165.1
25th Ave (San Mateo)	2022	48%	52%	\$201.9



# CALIFORNIA High-Speed Rail Authority

## Memorandum

**Date:** January 26, 2023  
**To:** Local Policy Maker Group (LPMG)  
**From:** Boris Lipkin, Northern California Regional Director  
**Re:** California High-Speed Rail Program Update

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### STATEWIDE UPDATE

#### **Fresno Chinatown Mural Brings Arts and Transportation Together**

In December 2022, the California High-Speed Rail Authority, in partnership with the Fresno Arts Council and muralist Mauro Carrera, debuted a new mural along China Alley in Fresno's Chinatown. The mural pays homage to the rich and historic past of Fresno's Chinatown while looking toward the future of building the nation's first high-speed rail system.

[Click here](#) to watch the full video.

[Click here](#) for the photo release and to learn more about the artist.



### UPCOMING OUTREACH ACTIVITIES

- [Outer Sunset Farmers Market & Mercantile](#) – January 29<sup>th</sup>, 9am to 2pm