

SAN FRANCISCO TO SAN JOSE PROJECT SECTION FINAL EIR/EIS

Boris Lipkin Northern California Regional Director

Gary Kennerley Northern California Director of Projects

Serge Stanich Director of Environmental Services

August 17, 2022





Agenda

1. Key Points for Today's Presentation

- 2. Project Section Overview
- 3. Development of Alternatives
- 4. Background on San Francisco to San Jose Project Section
- 5. Key Topics of Stakeholder Interest

San Francisco to San Jose

Key Points for Proposed Project:

- Final EIR/EIS studies necessary infrastructure for blended high-speed rail service beyond what is being built by the Caltrain Electrification Project.
- Blended service takes advantage of the existing rail right-of-way; reduces impacts to surrounding communities; provides safety improvements including modifications at at-grade crossings; upgrades corridor from 79 mph diesel operations to 110 mph electrified service.
- Connects major employment centers of the San Francisco Bay Area to the Central Valley and Southern California, decreasing travel time, improving mobility, and supporting housing/job balance.
- Final EIR/EIS is a thorough evaluation of the project's environmental effects and is based on extensive outreach with communities along the rail corridor.



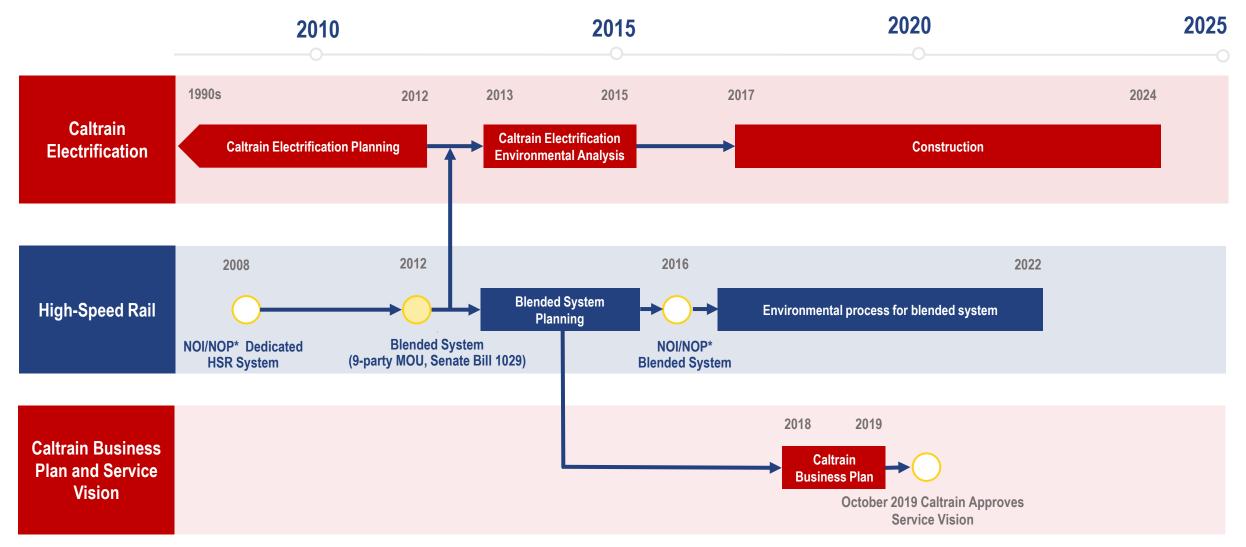
Project Section Overview

High-Speed Rail in Northern California





Blended Service on Caltrain Corridor



*NOI/NOP = Notice of Intent/Notice of Preparation



Project Background

Important Milestones

2016	Revised Scoping for Blended System
2019	Identification of the Preferred Alternative
2020	Draft EIR/EIS
2021	Revised Draft EIR/Supplemental Draft EIS
2022	Final EIR/EIS



Community Engagement Activities 2016 - 2022



570+

Meetings with the general public, stakeholders, and agencies and tabling at local events



100+

Stakeholder Working Group Meetings



25+



Open Houses and Hearings



Materials translated into Spanish, Mandarin, Tagalog and Vietnamese

Stakeholder Working Groups

Community Working Groups:

Neighborhood, Business, and **Community Organizations**

Engagement Tools:

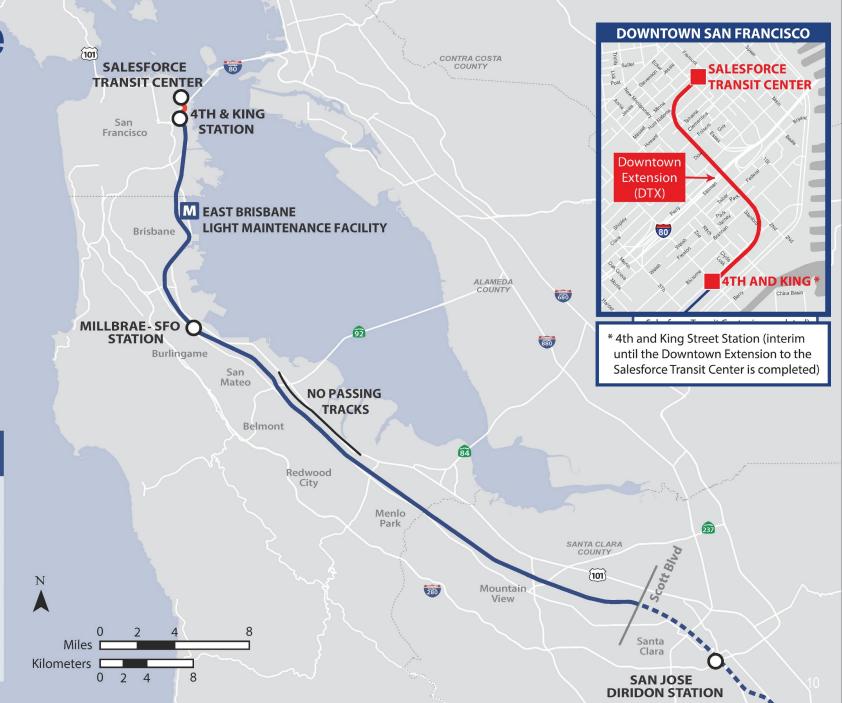
- Project website
- Surveys
- Telephone hotline
- Facilitated discussions on project design



Preferred Alternative (Alternative A)

LEGEND

- Preferred Alternative for the San Francisco to San Jose Project Section
- San Jose Diridon Subsection Approach
 Approved in April 2022 as part of the San Jose to Merced Project Section)
 - Downtown Rail Extension (DTX)
- O HSR Stations
- M Light Maintenance Facility



Alternative A – Preferred Alternative

Effects compared to Alternative B







Fewer impacts on natural resources



Fewer impacts on wetlands and aquatic habitats



Lower capital cost



Fewer air quality impacts during construction



Fewer road closures



Faster Caltrain peak hour travel time



Better alignment with Caltrain Service Vision

Comments Received

Throughout the environmental review process, the EPA has appreciated the commitment of the California High Speed Rail Authority to work closely with state and federal resource and regulatory agencies to address concerns early and avoid and minimize impacts to environmental resources.

- United States Environmental Protection Agency

"

Connecting these major economic regions with high-speed rail will change the way people travel throughout the state and foster more equitable employment and housing opportunities.

- California Assemblymember Matt Haney, District 17

"

Ensuring that major economic regions are connected by electrified high-speed rail, rather than vehicular roadways and air travel alone, is key to ensuring that California can meet its climate goals.

- SPUR/Bay Area Council/Silicon Valley Leadership Group

ENVIRONME	NITED STAT	ES ENVIRONMENTAL PROTECTION AGENCY REGION IX 75 Hawthorne Street San Francisco, CA 94105-3901
		July 7, 2022
Ser		
Dir		A
Cal	STATE CAPITOL P.O. BOX 942849	Assembly DISTRICT OFFICE 455 GOLDEN GATE & AND A 14300 SAME BANCISCO CA 4102
770	SACRAMENTO, CA 94249-0017 (916) 319-2017	
Sac	FAX (916) 319-2117	California Legislature (415) 557-3013 FAX (415) 557-3015
	E-MAIL Assemblymember. Haney@assembly.ca.	DOV.
Sut		
oue		MATT HANEY
		ASSEMBLY MEMBER, SEVENTEENTH DISTRICT
Dea	Au	
TI		
The Hig	Boa	
Nat	Cal	
150	770	BAYAREA
	Sac	COUNCIL
Thr		SPUR SULLEY CONCE
Cal	Dea	
age		
EP	The	Board of Directors
moi	brii	California High-Speed Rail Authority
202	Pen eco	770 L Street, Suite 620 Sacramento, CA 95814
The	stat	Saciamento, CA 55614
the		August 9, 2022
pro	If a	
add	beir	Re: San Francisco to San José Final EIR / EIS
me	pro	
mu	As	Dear California High-Speed Rail Authority Board of Directors,
	con	
	allc	On behalf of the Silicon Valley Leadership Group, the Bay Area Council, and SPUR, we urge your
	and	approval of the Final EIR/EIS document for the San Francisco to San Jose project section which is
	and	the last segment needed for High-Speed Rail to be entirely environmentally cleared linking San
	sec	Francisco, the Peninsula, San Jose, the Central Valley, and Los Angeles. We have been early supporters of bringing high speed rail service to California, and have remained engaged as this
	Dir	effort proceeded to identify project alternatives and effective transportation integration with
	In S	the Bay Area's cities, transit stations and operators.
	Do	
	spe	This step is critical to the future development of sustainable and efficient transportation to,
	pro	from, and within the Bay Area, the Central Valley, and Southern California. Ensuring that major
CC 1	Sar	economic regions are connected by electrified high-speed rail, rather than vehicular roadways
		and air travel alone, is key to ensuring that California can meet its climate goals. Over time, an
		operational high speed rail system in California will be able to take hundreds of thousands of
		vehicles off the road annually while meeting increasing demand for intercity travel.
		Under blab en en der Blanden en et die de een de die een op die Staar van die bester die die staar van die bes
		Having high-speed rail environmentally cleared will mean Californians will be one step closer to traveling throughout the state in new ways that will foster more equitable employment and
		housing opportunities, and where businesses will be better able to grow and thrive within
		California. As the largest rail project under construction anywhere in the country. California's
		high speed rail will generate enormous economic activity as construction continues, creating

and sustaining jobs across the state



Development of Alternatives

Alternatives Considered and Eliminated

In the 2008 Program EIR/EIS

Altamont Pass Alternative

- Impacts to wetlands, waterbodies and environment
- Operational challenges
- Longer travel time between South Bay and Southern California



Alternatives Considered and Eliminated

In the 2008 Program EIR/EIS

Highway 101 and I-280 Alternatives (2008)

- Environmental and socioeconomic impacts
- Constructability
- Right-of-way



Alternatives Considered

2010 Preliminary Alternatives Analysis and Supplemental Alternatives Analysis

Fully grade-separated, four-track system

- Additional community impacts
- Substantially higher costs
- Substantial construction impacts

Blended System

- Northern California 9-Party MOU
- Legislation (SB 1029, SB 557)



Stations and Passing Tracks Considered

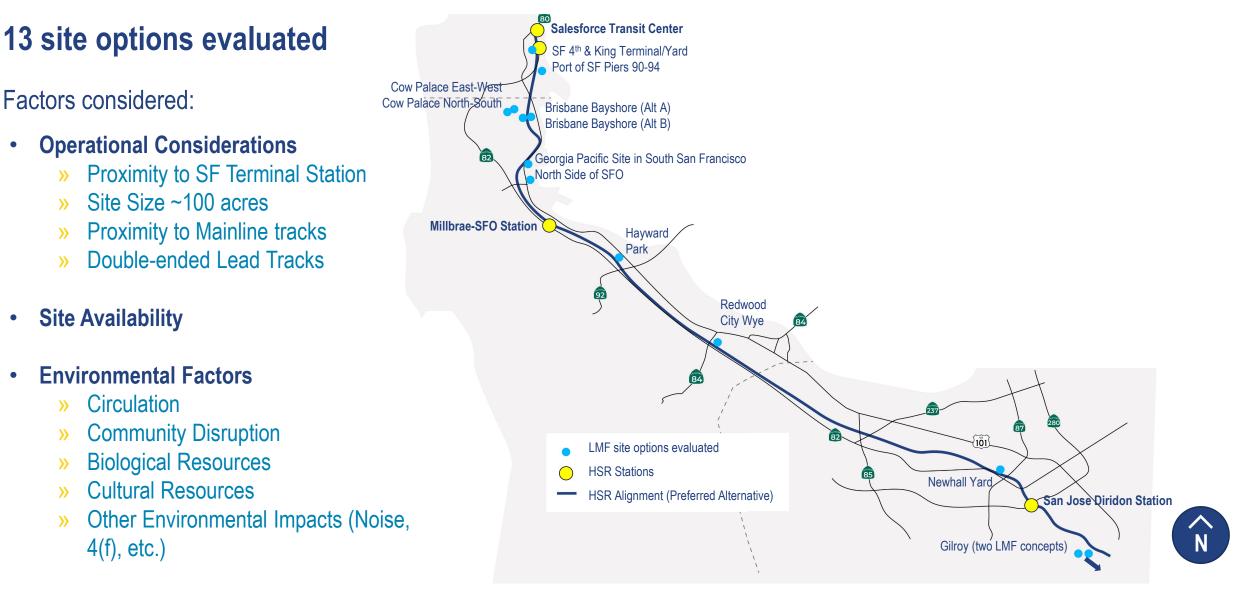
During Blended System Planning (2012-2016)

Eliminated

- Optional Mid-Peninsula Station eliminated based on community feedback
- Middle 3-Track (16 miles)
- Long Middle 4-Track (8 miles) Carried Forward:
- Short Middle 4-Track (6 miles)

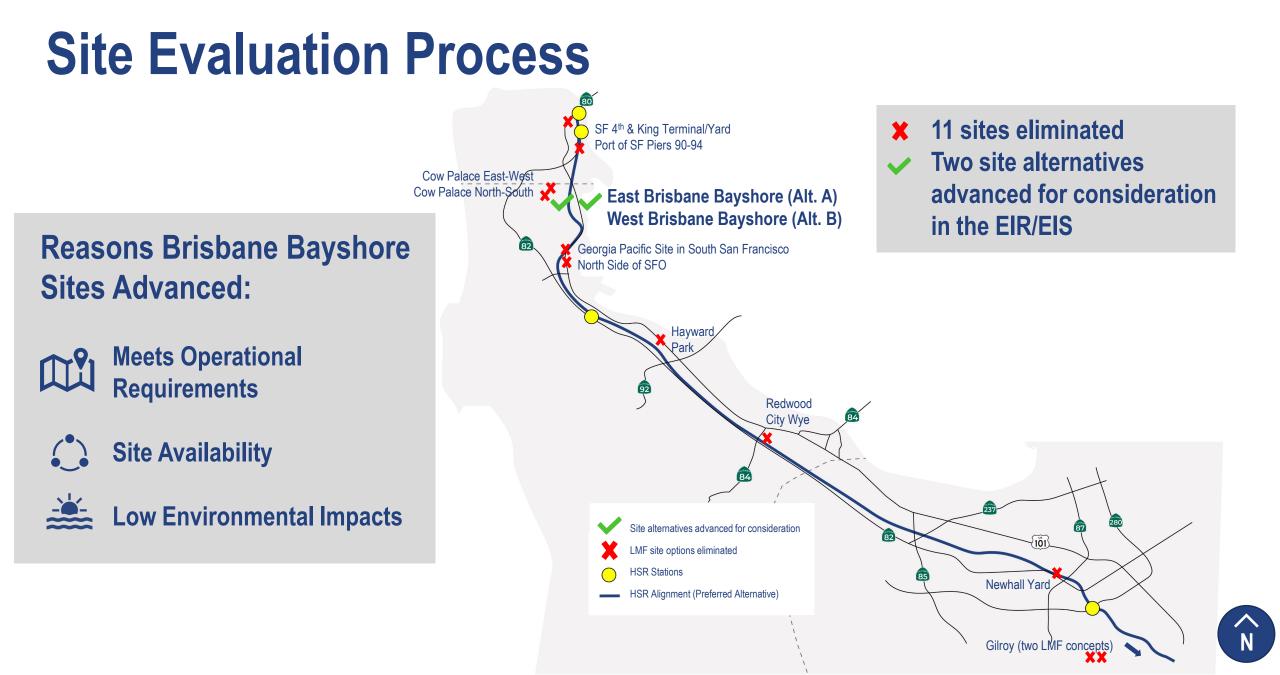


LMF Site Evaluation Process



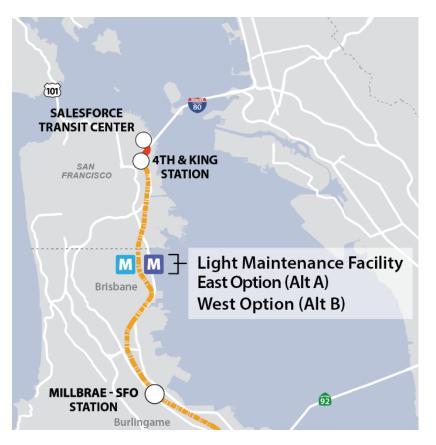
LMF Sites Eliminated in Pr

			Environmental Impacts				
the Evaluation							
rocess	Operational Deficiencies	Site Availability	Circulation Impacts	Community Disruption	Biological Impacts	Cultural Resource Impacts	Other Environmental Impacts
San Francisco Yard at Caltrain 4th and King Station/Terminal		×	×	×		×	
Port of San Francisco Piers 90-94	×	×	×		×		
Cow Palace East-West Site	×			×	×	×	×
Cow Palace North-South Site	×			×	×	×	×
Georgia Pacific Site South San Francisco, east of 101, north of Colma Creek	×		×	×	×		×
North Side of San Francisco International Airport (SFO)	×	×	×		×		×
Hayward Park San Mateo east of Caltrain ROW, north of SR-92	×			×	×	×	×
Redwood City Wye south of SR-84	×		×	×	×		×
Newhall Yard north of I-880, east of Caltrain ROW	×	×					×
Gilroy two LMF concepts	×			×	×	×	×



CALIFORNIA High-Speed Rail Authority

LMF Alternatives Evaluated in the EIR/EIS



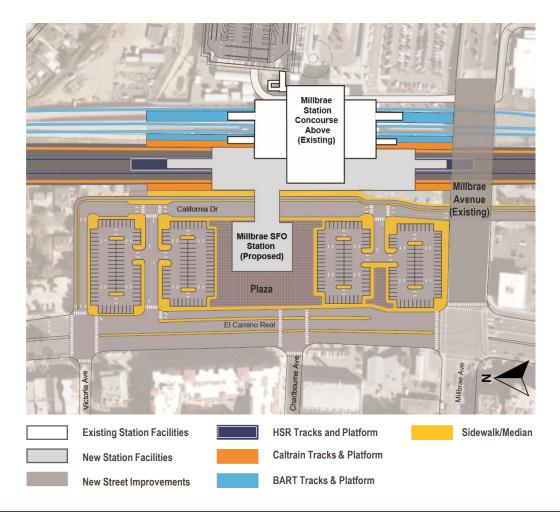


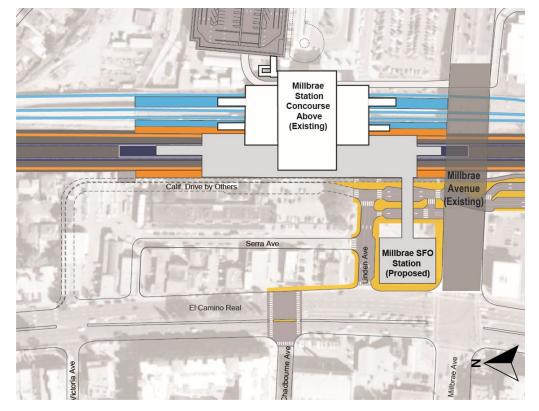
CALIFORNIA High-Speed Rail Authority

Millbrae Station Options

Millbrae – SFO Station Design (Preferred Alternative)

Millbrae – SFO Reduced Site Plan Design Variant





CALIFORNIA High-Speed Rail Authority

Alternatives A & B

Alternative A Features

East Option Light Maintenance Facility No Additional Passing Tracks

Alternative B Features

 M
 West Option Light Maintenance Facility

 Additional Passing Tracks

- San Francisco to San Jose Project Section
 HSR Stations
- M Maintenance Facilities
- San Jose to Merced Project Section (Approved April 2022)
 Downtown Extension

Safety Modifications

- At-Grade Crossings
 - Four-Quadrant Gates
 - Vehicle Detection
 - Median Channelization
- Perimeter Fencing



CALIFORNIA High-Speed Rail Authority

Important Infrastructure Already Under Construction

	Components	Peninsula Corridor Electrification Project (Operating up to 79 mph)	Additional Changes for HSR (Operating up to 110 mph)
	PG&E Substation Upgrades	2 Substations	
7	Traction Power Substations	2 Substations and interconnections	May be enhanced for future HSR and Caltrain service expansions
	Switching and Paralleling Substations	8 total	
	Overhead Catenary System (poles, wires, etc.)	~3,000 catenary poles. Caltrain modified poles in ROW and less than 2-feet from original location based on HSR request.	~600 poles added or modified to accommodate track straightening and increase speeds
	Tunnel Modifications	Modifications for overhead catenary system	
	Track Straightening	None	15.8 route miles at 45 locations
	At-grade Crossings	Signaling modifications to prevent interference with overhead catenary system	Safety improvements at 38 crossings
	Perimeter Fencing		7.3 miles



San Francisco to San Jose Project Section Final EIR/EIS

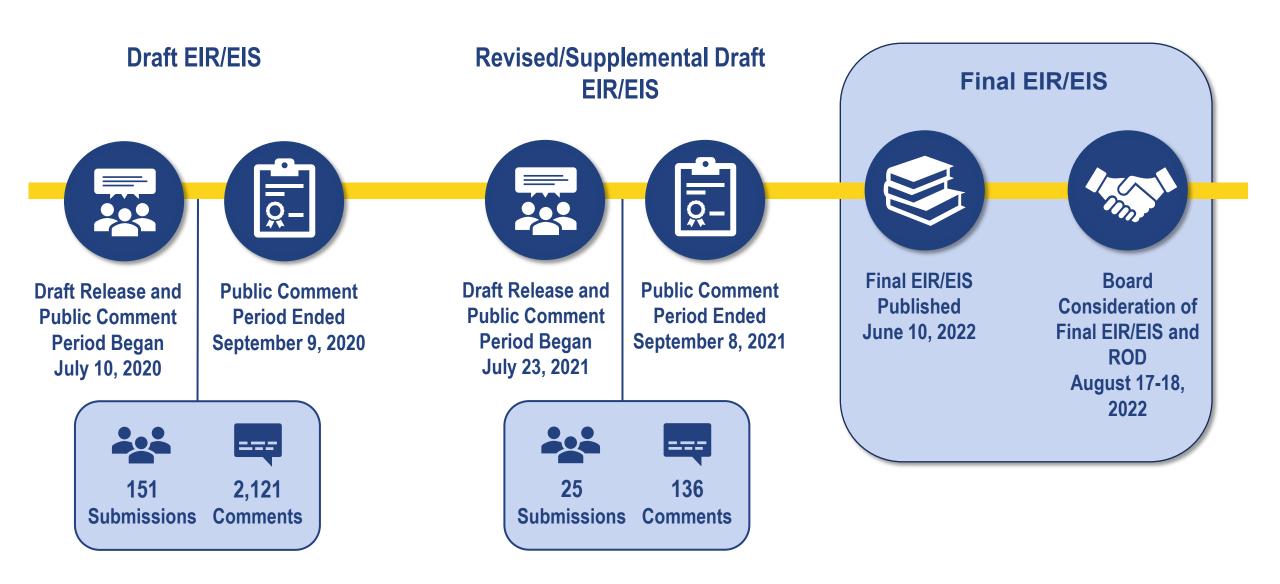
San Jose Diridon Station Approach Subsection

Status

San Jose Diridon Station Approach Subsection was approved by the Authority Board in April 2022 as part of San Jose to Merced Project Section



Environmental Process



Changes Between Draft and Final EIR/EIS



- Incorporated design refinements for the Brisbane
 LMF and surrounding area with respect to the East Brisbane LMF lead track, the Tunnel Avenue
 Overpass, the design for the relocated Brisbane Fire -Station (Alt A), and construction assumptions
- Added information about the Authority's LMF site evaluation process
- Added site-specific traffic mitigation measures
- Incorporated analysis of a design variant for the Millbrae Station

- Incorporated analysis and mitigation measures for monarch butterfly; refined several biological resource mitigation measures
- Refined air quality modeling, incorporated refined emissions results, and added new air quality mitigation measure
- Clarified noise mitigation regarding quiet zones
- Refined safety and security mitigation measures

Measures to Avoid or Address Impacts

- The project incorporates programmatic commitments to advance design and implement construction practices that avoid or minimize impacts (called Impact Avoidance and Minimization Features)
- When impacts remain after consideration of IAMFs, the Authority has included mitigation measures (MMs)
- The Authority's Mitigation Monitoring and Enforcement Plan (MMEP) includes IAMFs and mitigation measures, and identifies:
 - » The party responsible for implementation
 - » The timing of implementation
 - » The implementation mechanism

Resources Considered in the EIR/EIS

CEQA Impacts for Preferred Alternative

3.2 Transportation

3.3 Air Quality and Greenhouse Gases

3.4 Noise and Vibration

3.5 Electromagnetic Interference and Electromagnetic Fields

3.6 Public Utilities and Energy

3.7 Biological and Aquatic Resources

3.8 Hydrology and Water Resources

3.9 Geology, Soils, Seismicity, and Paleontological Resources

3.10 Hazardous Materials and Waste

3.11 Safety and Security

3.12 Socioeconomics and Communities

3.13 Station Planning, Land Use, and Development

3.14 Parks, Recreation, and Open Space

3.15 Aesthetics and Visual Quality

(3.16 Cultural Resources)

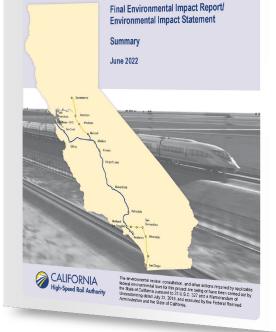
3.17 Regional Growth

3.18 Cumulative Impacts

4.0 Section 4(f)/Section 6(f)*

5.0 Environmental Justice*





Legend

Bold: CEQA significant and unavoidable impact for the Preferred Alternative **Bold and Parenthesis**: CEQA significant and unavoidable impact for the Preferred Alternative only in the San Jose Diridon Approach Subsection *Asterisk: Federal law topics

Key CEQA Effects, Impact Avoidance and Minimization Features (IAMF), Mitigation Measures, and Commitments

Key CEQA Effects	IAMFs, Mitigation Measures, and Commitments
Bus transit and services	 Intersection improvements, including signal timing modifications, installation of new traffic signals, and restriping Installation of bus transit signal priority at certain traffic signals
Air quality (temporary and localized)	 Use of zero-emission and/or near-zero emission light-duty on-road vehicles and off-road equipment, including a commitment to prioritize the use of electric-powered equipment and vehicles as they become available Minimization and control of fugitive dust emissions and exhaust emissions during construction through use of best available on-site controls Use of lower-emission materials and fuels in construction
Increase in noise & vibration levels	 Use of sound barriers, sound insulation, or noise easements near sensitive populations Additional noise analysis during final design, and vehicle noise specifications Support potential implementation of quiet zones by local jurisdictions Site-specific vibration propagation tests; use of special trackwork, special track support, vibration easement, building modifications, or vehicle suspension.

Key Effects, IAMFs, Mitigation Measures, and Commitments

Key Effects	IAMFs, Mitigation Measures, and Commitments
Safety and Security, emergency vehicle response times	 Installation of emergency vehicle response improvements near the 4th and King Street and Millbrae Stations, and at several at-grade crossing locations in Burlingame, Redwood City, Menlo Park, and Mountain View intersections Intersection improvements, including signal timing modifications and installation of new traffic signals
Alteration of existing and planned land uses associated with the Brisbane LMF and Millbrae-SFO Station	 Collaborative Final Design with the City of Brisbane to maximize development at the Brisbane Baylands adjacent to the LMF Collaborative Final Station Design Process with the City of Millbrae
Cumulative Impacts (Bus Transit, Air Quality, Noise, Vibration, Safety and Security)	 Intersection improvements, including signal timing modifications, installation of new traffic signals, and restriping Use of zero-emission and/or near-zero emission light-duty on-road vehicles and off-road equipment Minimization and control of fugitive dust emissions and exhaust emissions during construction Use of sound barriers, sound insulation, or noise easements near sensitive populations

Regulatory Agency Coordination

Secured Agency Approvals

- ✓ National Marine Fisheries Service, Biological Opinion March 18, 2022
- ✓ U.S. Fish and Wildlife Service, Biological Opinion April 22, 2022
- U.S. Army Corps of Engineers and Environmental Protection Agency, Checkpoint C Concurrence Letters - June 29, 2020 and June 26, 2020
- ✓ State Historic Preservation Officer Memorandum of Agreement June 22, 2022
- Federal Railroad Administration, Final General Conformity Determination Federal Register notice published on July 28, 2022



Key Topics of Stakeholder Interest

Key topics of stakeholder interest



Light Maintenance Facility in Brisbane



Millbrae-SFO Station



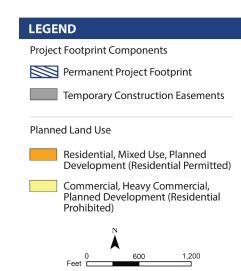
Caltrain 2040 Service Vision

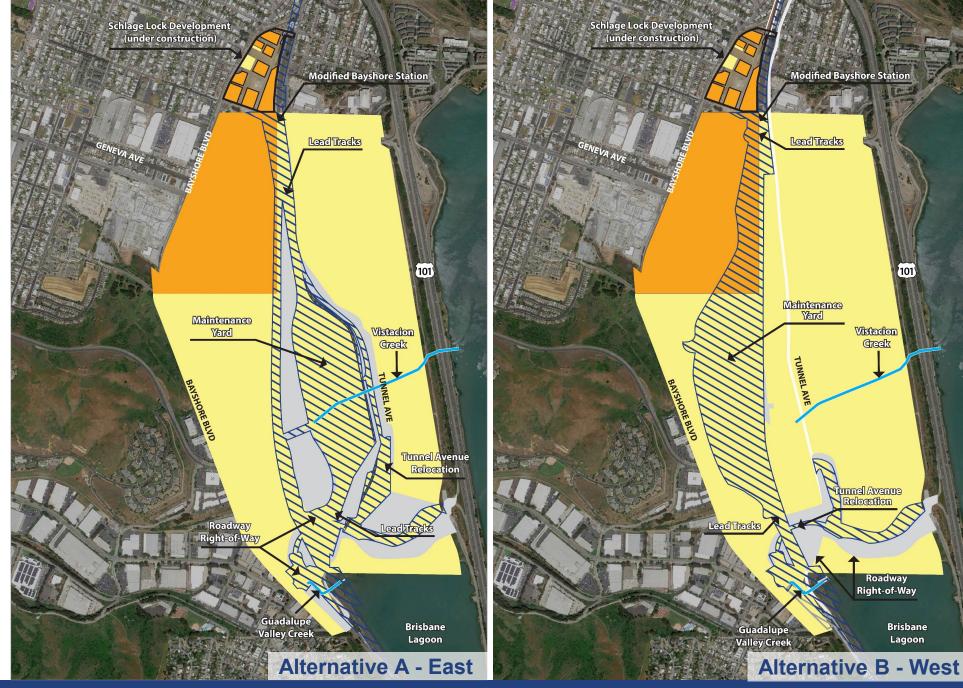
At-Grade Crossings and Grade Separations



LMF Final Analysis

Alternative A minimizes impacts to areas that allow housing on the west side of Baylands Site (based on 2018 General Plan Amendment).





) CALIFORNIA High-Speed Rail Authority

Light Maintenance Facility in Brisbane

Final EIR/EIS Analysis of LMF sites

East Brisbane Baylands site (Alternative A) remains the preferred alternative

- Minimizes impacts to areas that allow housing on the west side of Baylands Site (based on 2018 General Plan Amendment), and
- Has fewer impacts to wetlands and sensitive butterfly habitat on Icehouse Hill.





Refinements Between Draft and Final EIR/EIS

Alternative A: Brisbane East LMF

- 1. Valley Drive to Old County Road Extension removed
- 2. Additional analysis of construction traffic at the site and a phased approach to construction of roadway modifications
- 3. Updated information on construction and operations of the LMF
- 4. Updates to reflect revision to the design for the Relocated Brisbane Fire Station
- 5. Clarification of design at Visitacion Creek
- 6. Lagoon Road relocation
- 7. LMF lead track realignment
- 8. Bayshore Caltrain Station modifications
- Bold = Changes in response to City of Brisbane comments



Importance of Millbrae-SFO Station

- Convenient transfers with intermodal connections to Caltrain, BART, San Mateo County Transit District (SamTrans) buses, and private buses/shuttles
- Important link for San Mateo County residents, visitors, and employees to access regional transit services and SFO
- One of the critical connections in both the regional and statewide rail network



Benefits of the Preferred Alternative

Compared to Reduced Site Plan Design Variant

- More efficient pedestrian travel routes within the station
- Direct multimodal station access adjacent to the station hall via overhead concourse
- Separation of pedestrian and vehicular access routes to the station



- Full build out of California Drive to El Camino Real consistent with Authority design criteria
- Direct vehicular access southbound from El Camino Real to California Drive
- Better emergency egress evacuation from platforms





Integration with Development

Implementation of the HSR modifications would not preclude future development of an integrated and mutuallysupporting mixed-use development at the site, with Millbrae Station as its anchor and focal point..., such development would be consistent with the City of Millbrae's desire for TOD at the site and with state and Authority policies supportive of infill development, as a means to achieve GHG emissions and VMT reductions. "



Source: 3.13 Station Planning, Land Use, and Development

Example of Development on Parking Lots

Gateway at Millbrae Station

2018



Aerial view of BART Parking lot at Millbrae Station

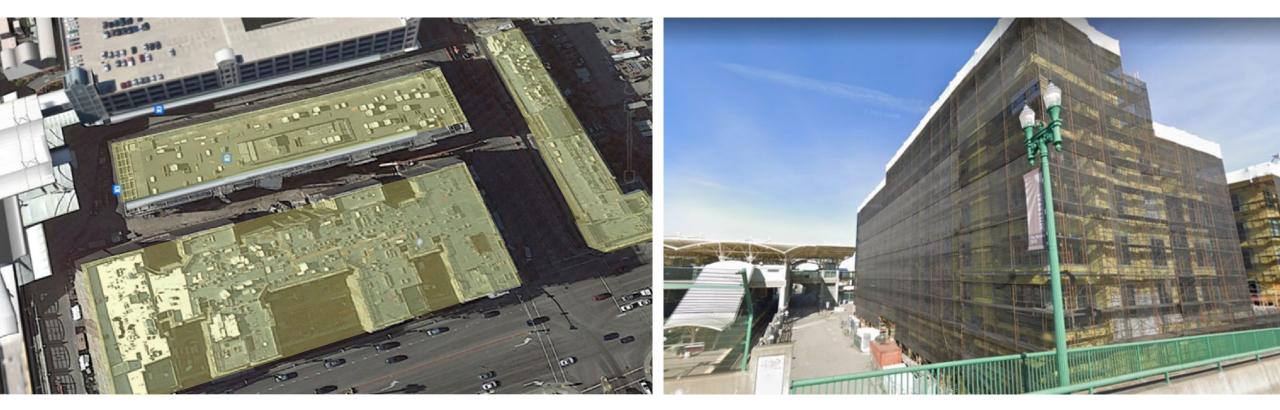
BART Parking lot at Millbrae Station



Example of Development on Parking Lots

Gateway at Millbrae Station

2022



Aerial view of Gateway at Millbrae Station

Gateway at Millbrae Station under construction



Corridor At-Grade Crossings



Safety upgrades at each at-grade crossing based on FRA and CPUC requirements



14 site-specific traffic mitigation measures for the Preferred Alternative



Revised mitigation measure on emergency vehicle response times to allow for more flexibility in implementation and mitigation options



Contributed \$84 million to 25th Avenue Grade Separation in San Mateo



Continue to coordinate with local jurisdictions on traffic issues

At-Grade Crossing Features

Station Fence

可大学

Channelization

Pedestrian Gates

Channelization

Quad Road Barriers

HEACOR!

Pedestrian Gates

8ft Right-of-Way Fence

Grade Separations Plans in the Caltrain Corridor

- Caltrain corridor has 39 at-grade crossings between San Francisco and San Jose
- Many local jurisdictions are in various stages of grade separation development
- The Authority and Caltrain have supported these efforts

San Francisco Bay Dr, 16th St
Brisbane (Would Replace Mission Bay Dr and 16th St Crossings)
South San Francisco
San Bruno • Scott St
Millbrae •
• Broadway
Burlingame
San Mateo 25th Ave (Constructed)
Belmont Whipple Ave, Brewester Ave, Broadway, and others
San Carlos Redwood City
Atherton Glenwood Ave, Oak Grove Ave, Ravenswood Ave
Menlo Park Palo Alto Ave, Churchill Ave, Meadow Dr, Charleston Rd
Palo Alto
Rengstorff Ave Castro St Santa Clara
Mountain View Auzerais Ave, Virginia St Maxy Ave
Sunnyvale Sunnyvale Ave
San Jose Concept Plan)
Skyway Dr, Branham Ln, Chronwith Ave
Chynoweth Ave (UPRR)
Morgan Hill
Source: Caltrain Business Plan

San Mateo 25th Avenue Grade Separation Project



- First bookend project to open to the public
- Provides grade separation at:
 - » 25th Avenue
 - » 28th Avenue
 - » 31st Avenue

 \bigcirc

• Rebuilt Caltrain Hillsdale Station



At-Grade Crossings and Grade Separations

Caltrain 2040 Service Vision



Trains per Hour, per Direction	Peak: 8 Caltrain + 4 HSR Off-Peak: 6 Caltrain + 3 HSR
Stopping Pattern	Local / Express with timed transfer at Redwood City
Travel Time, STC-Diridon	61 Min (Express) 85 Min (Local)
New Passing Tracks	Millbrae, Hayward Park-Hillsdale, Redwood City, Northern Santa Clara County, Blossom Hill
Service Type Service Type HSR Skip Stop Express Local Conceptual 4 Track Segment or Station to be refined through further analysis and community engagement.	 Local and Express trains each operating at 15-minute frequencies with timed cross-platform transfer at Redwood City Skip stop pattern for some mid-Peninsula stations; some origin-destination pairs not served at all Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 minutes

CALIFORNIA High-Speed Rail Authority

Benefits



Mobility and Connectivity

- Advances and expands electrified passenger rail service where only diesel service exists today
- Reduces travel times and increases statewide accessibility
- Modernizes and expands regional rail capacity
- Increases intermodal connectivity
- Improves safety of the rail corridor and stations
- Increases transit capacity



Economic

- Statewide network enables regional employment and income growth
- Increases attractiveness for tourism
- Lays foundation for new domestic high-speed rail industry
- Increases economic activity around high-speed rail facilities



Environmental

- Reduces local, state and regional vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions
- Reduces long-term energy use
- Avoids and minimizes adverse impacts by utilizing existing rail corridor
- Fewer natural and community impacts compared to other transportation alternatives
- Frees up capacity at SFO for long distance travel

Next Steps

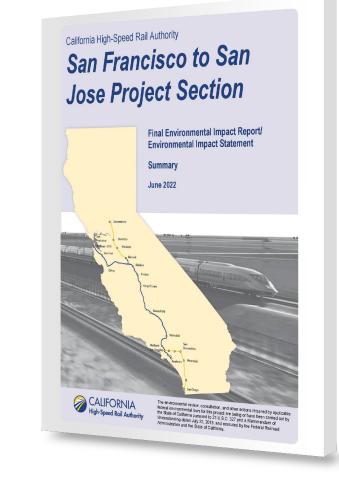
Prior to Board Deliberation and Action

TODAY

- Listen to public comments
- Board identifies issues for staff to address further

TOMORROW

- Staff presents on issues identified by Board
- Counsel remarks to the Board for consideration of the approval documents
- Board deliberation and proposed action:
 - » Certification of the Final EIR/EIS as CEQA Lead Agency
 - » Approve the Preferred Alternative and related CEQA decision documents
 - » Direct the Authority CEO to issue the Record of Decision under the Authority's NEPA Assignment



CALIFORNIA High-Speed Rail Authority

Headquarters California High-Speed Rail Authority 770 L Street, Suite 620 Sacramento, CA 95814 www.hsr.ca.gov

f y 🛗 🞯

Northern California Regional Office California High-Speed Rail Authority 100 Paseo De San Antonio, Suite 300 San Jose, CA 95113