

# CENTRAL ALAMEDA COUNTY COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

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November 2022

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# CENTRAL ALAMEDA COUNTY COMPREHENSIVE MULTIMODAL CORRIDOR PLAN



November 2022

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# 1. Introduction and Executive Summary

The Central Alameda County Comprehensive Multimodal Corridor Plan (CACCMCP) presents a holistic approach for managing congestion, improving safety, promoting multimodal transportation, and incorporating measures to reduce air pollution and greenhouse gases.

The Alameda County Transportation Commission (Alameda CTC) developed the CACCMCP pursuant to the statutory mandate for Caltrans to conduct long-range corridor planning, as well as in response to the Road and Repair Accountability Act of 2017, also known as Senate Bill 1 (SB 1), that was passed in April 2017. Among the multiple programs established by SB 1 is the Solutions for Congested Corridors Program (SCCP). This program provides \$250 million annually on a competitive basis to Caltrans and regional agencies for projects designed to achieve a balanced set of transportation, environmental, and community access improvements within highly congested travel corridors throughout the State. Eligible projects must be included in a Comprehensive Multimodal Corridor Plan (CMCP).

# 1.1 CACCMCP Approach

The CACCMCP is structured to address community needs at the corridor scale, while taking into consideration the level of complexity of the corridor. A significant amount of planning has been underway along the corridor, including multimodal corridor planning and project development along key segments of the corridor. As such, the CACCMCP involves an integration of existing plans, studies, and project-specific information with targeted new analysis and enhanced community engagement. **Figure 1-1** illustrates our approach to the development of the CACCMCP. The CACCMCP was developed by referencing various documents such as the Caltrans Corridor Planning Process Guide<sup>1</sup>, CMCP Guidelines<sup>2</sup> and through discussions with stakeholders.

#### Figure 1-1: CACCMCP Approach



<sup>&</sup>lt;sup>1</sup> Caltrans, Corridor Planning Process Guide, February 2020, accessed April 7, 2022, <u>https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/system-</u>planning/corridor-planning-process-guide-12-24-2019-a11y.pdf.

<sup>&</sup>lt;sup>2</sup> California Transportation Commission, Comprehensive Multimodal Corridor Plan Guidelines, December 2018, accessed April 7, 2022, <u>https://catc.ca.gov/-/media/ctc-media/documents/120518-approvedcmcp-guidelines-a11y.pdf</u>.

- 1. Scope Effort and Identify Stakeholders: The CACCMCP scope framed the overall corridor planning effort and identified key stakeholders. The key stakeholders included representatives from the California Department of Transportation (Caltrans), local governments, transit agencies, park districts, and advocacy groups. A Technical Advisory Committee (TAC) was formed and met regularly to collaborate on Plan development and provide strategic guidance at key decision points.
- 2. Identify Study Area, Projects, and Baseline Performance Assessment: The CACCMCP study area was identified in conjunction with the TAC. TAC members provided the list of projects and associated documents that were included in the CACCMCP. The project team collected and organized corridor information to understand the corridor context and conducted a baseline performance assessment. Potential projects and strategies are identified at sufficient levels of detail for analysis and evaluation based on existing plans and studies, as well as the performance assessment, gaps identification, and diagnosing the causes of congestion, safety, and reliability issues. The study area overview is provided in Chapter 3, and the range of existing facilities, services and programs are listed in Chapter 4.
- 3. **Evaluation Framework**: The goals, objectives, and performance measures were developed through a collaborative process with Alameda CTC and the TAC. Some of these performance metrics are required for SCCP as listed in the California Transportation Commission's (CTC) SB1 Technical Performance Measurement Methodology Guidebook.<sup>3</sup> Chapter 2 describes the evaluation framework along with relevant policies and guidelines.
- 4. **Community Engagement**: Although significant outreach had already been conducted along the Central Alameda County corridor, additional outreach for the CACCMCP served to supplement existing work with targeted outreach to fill in known gaps. Engagement efforts included a series of in-person and online community meetings in partnership with Community Based Organizations (CBOs) that represented underserved communities, as well as an interactive online map survey. The stakeholder and community engagement efforts are described in Chapter 6.
- 5. Performance and Needs Assessment: A performance assessment was conducted to outline the system performance and trends. An assessment of existing and future (no build) conditions was conducted for the CACCMCP study area that compiled and organized the information in safety, mobility, reliability, sustainability, and equity profiles. The needs assessment includes gap identification and diagnosing the causes of congestion, safety, and reliability issues. Chapter 5 of the CACCMCP provides information on the performance and needs assessment.
- 6. **Project Evaluation**: The projects were evaluated based on their potential to address the identified goals, objectives, and performance measures. The project evaluation list and maps are presented in Chapter 7.
- 7. **Implementation and Monitoring**: A preliminary implementation plan is prepared that outlines the planning-level cost estimates and implementation term for the CACCMCP (Chapter 7).

<sup>&</sup>lt;sup>3</sup> California Transportation Commission, Senate Bill 1 (SB1) Technical Performance Measurement Methodology Guidebook, <u>https://catc.ca.gov/-/media/ctc-media/documents/ctc-workshops/2022/sb-</u> <u>1/performance-measurement-guidebook-final-draft.pdf.</u>

## 1.2 Study Overview

The CACCMCP study area is located in Alameda County and within Caltrans District 4, with routes crossing through and along the East Oakland and Central Alameda County regions, including Oakland, San Leandro, Hayward, and the unincorporated communities of Ashland and Cherryland. It spans from the Lake Merritt Bay Area Rapid Transit (BART) Station to the South Hayward BART Station, including in total seven BART stations along the corridor as well as downtown areas, schools, and other major



destinations. The entire corridor segment that follows the BART alignment is approximately 16 miles long and covers a total area of about 22.5 square miles. The study area includes freeways, conventional highways and arterials, a robust transit network inclusive of bus and regional rapid transit systems, trails, and other alternative modes of transportation. **Figure 1-2** shows the CACCMCP study area.

Transportation facilities within the CACCMCP study area serve local, regional, and interregional movement of people and goods across urban and suburban landscapes. The key corridors within the study area are major commute corridors that connect several important nodes of urban development including the downtown areas of San Leandro and Hayward.

International Boulevard/East 14th Street/Mission Boulevard is a major arterial corridor that runs along the length of the study area and parallels the alignment of Interstate 880 (I-880) within the study area. AC Transit's Tempo Bus Rapid Transit (BRT) runs on International Boulevard/East 14th Street from 2<sup>nd</sup> Avenue to Garcia Avenue. East 14<sup>th</sup> Street connects from San Leandro Boulevard to the Bay Fair BART Station, as shown in Figure 1-2. The mix of land uses (commercial and high density residential) adjacent to sections of this corridor are preferred locations for walking and bicycling. San Leandro Street, from Fruitvale Station to San Leandro Boulevard at its intersection with East 14<sup>th</sup> Street, provides vital connections along the study area. The segment of International Boulevard and East 14th Street between 42nd Avenue in Oakland and Bayfair Drive in San Leandro, referred to as SR 185, is owned and operated by Caltrans.

BART is a heavy-rail public transit system that connects the San Francisco Peninsula with communities in the East Bay and South Bay. BART provides a frequent, reliable, and safe transportation alternative for the



#### COVID-19 IMPACTS

The COVID-19 pandemic affected Alameda County's health, economy, and travel patterns in 2020 and 2021. While long-term impacts are uncertain, the needs identified in this CACCMCP are likely to be broadly relevant as Alameda County emerges from the crisis. Pandemic impacts highlight the importance of a resilient multimodal transportation system that meets all resident and worker needs, especially the most vulnerable.

businesses and communities within the study area. By providing convenient means to access

jobs throughout the Bay Area, the BART system provides a reliable alternative to driving. BART stations can encourage higher density development (i.e., Transit-Oriented Development) around BART stations, which in turn provides congestion relief and associated environmental benefits. Multimodal improvements near BART stations will help in achieving the CACCMCP goal of providing a transportation system that improves health and the environment.

### Primary Corridors and Major Connections

Primary corridors are north-south links between the termini of the corridor (Lake Merritt BART Station and South Hayward BART Station). These corridors include International Boulevard/East 14th Street/Mission Boulevard, and Bay Area Rapid Transit (BART)/San Leandro Street/San Leandro Boulevard.

The term major connection refers to the corridors that facilitate north-south movement and provide access to east-west connections throughout the study area. Major connections accommodate shorter trips and provide access to BART stations and to multimodal facilities, such as transportation centers and park-and-ride lots within the study area. These facilities enable important local circulation and provide access to job centers and commercial districts, as well as to residential neighborhoods.

Safety is an important aspect of the Central Alameda County CMCP and as such, any roadway segment that is part of the Alameda County pedestrian or bicycle High Injury Network (HIN) would qualify a roadway as part of the major connections within the study area among if it also meets the following criteria below:

- Designated as an arterial roadway under the California Road System (CRS) Functional Classification
- Located within a half-mile of a BART station

The list of major connections was adjusted based on comments and suggestions from TAC members.

#### Figure 1-2: CACCMCP Study Area





#### Chapter 1

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# 1.3 CACCMCP Goals

The CACCMCP has the following six goals:

- 1. Safety: Provide a safe and convenient transportation system for all users.
- 2. **Equity:** Address mobility needs by providing an accessible, affordable, and equitable transportation network.
- 3. Travel Reliability: Enhance travel reliability and improve corridor efficiency.
- Land Use Planning: Support efficient land use planning that encourages active lifestyles.
   Public Health and Environment: Provide a transportation system that improves health and the environment.
- 5. **Community Revitalization:** Consider the multimodal network as a tool for community revitalization and economic growth.

# 1.4 Project List

A total of 92 projects were compiled and categorized for evaluation using the evaluation framework presented in Chapter 2. The projects are grouped into the following four major categories, parentheses include number of projects:

- 1. Active Transportation (70)
- 2. Safety (8)
- 3. Transit (6)
- 4. Multimodal (8)

**Figure 1-3** through **Figure 1-6** Illustrate the locations of the identified projects along with their associated project numbers. **Table 1-1** includes the list of projects with cost estimates, implementation time frames and responsible agencies.

# FINAL Table 1-1: List of Projects

Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency
Al	10th Street Improvement Project	10th Street between Webster St and the 10th Street bridge is slated for repaving. Additionally, Oakland Department of Transportation (OakDOT) received a Safe Routes to School (SRTS) grant to make sidewalk and pedestrian safety improvements around Lincoln Recreation Center and Lincoln Elementary.	Short-term	\$416	OakDOT
A2	Lake Merritt Bikeway Improvement Project	Extend the existing two-way protected cycle track around Lake Merritt from Madison Street southward and over the estuary bridge to International Blvd. Add a one-way protected bike lane in Eastbound direction on Lake Merritt Boulevard between Lakeside Drive and 1st Avenue. Additional improvement includes protected intersections and signal improvements.	Short-term	\$1,870	OakDOT
A3	East Bay Greenway Multimodal (Phase 1)	Improvements for construction within 3-5 years, including: one-way cycle tracks along East 12th Street, a Class I pathway along San Leandro Street, one-way cycle tracks along San Leandro Blvd and East 14th Street and Mission Boulevard, and pedestrian amenities. Additionally, the project includes rapid transit improvements, such as in-lane stops and transit signal priority (TSP).	Shovel ready	\$174,250	Alameda CTC
A4	East Bay Greenway Urban Trail (Phase 2)	East Bay Greenway Phase 2 - Rails-to-Trail or Rails-with-Trail facility in a 10+ year horizon pending collaboration with Union Pacific Railroad for necessary right of way. The project will connect the seven BART station between Lake Merritt to South Hayward that will generally follow the BART rail line.	Long-term	\$501,100	Alameda CTC
A5	Lake Merritt Bay Trail	Improve the safety and comfort of cyclists and pedestrian along the Lake Merritt Channel by closing trail gaps between San Francisco Bay Trail and Lake Merritt Channel Trails by adding an off-street Class I bike path.	Long-term	TBD	OakDOT
A6	San Francisco Bay Trail	Improve the safety and comfort of cyclists and pedestrian along the San Francisco Bay by closing trail gaps at multiple locations by adding an off- street Class I bike path.	Long-term	TBD	EBRPD, OakDOT
A7	International Blvd Pedestrian Lighting and Sidewalk Improvement Project	City of Oakland has received \$9.9 million dollars in Clean California funds and \$1.5 million dollars in Affordable Housing and Sustainable Communities (AHSC) grant funds for The International Boulevard Pedestrian Lighting and Sidewalk Improvement Project.	Long-term	\$10,400	OakDOT, AC Transit
A8	14th Ave from Foothill Blvd to E 19th St	Improve the safety and comfort of cyclists on 14th Avenue from Foothill Boulevard to East 19th Street by lane reduction from 4 to 2 lanes and adding a painted Class II bike lane.	Shovel ready	\$45	OakDOT

Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency	
А9	14th Ave from E 8th St/E 19th St to International Blvd/E 27th St	Improve the safety and comfort of cyclists on 14th Avenue from East 8th Street to International Boulevard and on 14th Avenue from East 19th Street to East 27th Street by lane reduction from 4 to 2 lanes and adding a painted Class II bike lane. Additionally, the project will extend sidewalks and install multiple RRFBs for pedestrian safety.	Shovel ready	\$6,000	OakDOT	
A10	22nd Ave from Foothill Blvd to E 12th St	Improve the safety and comfort of cyclists on 22nd Avenue from Foothill Boulevard to East 12th Street by adding a painted Class II bike lane.	Shovel ready	\$36	OakDOT	
A11	AHSC Camino 23 International Blvd Pedestrian Improvements	Pedestrian improvements, including sidewalk repair, street lighting, and crosswalk improvements, along International Blvd between 11th Ave and 38th Ave	Short-term	\$2,000	OakDOT	
A12	Fruitvale Alive Project	Improve the safety and comfort of pedestrians and cyclists on Fruitvale Avenue between Alameda Avenue and East 16th Street by widening sidewalks to install a bike lane at sidewalk level, slowing traffic with bulb- outs, repairing pavement, upgrading lighting, and enhancing crosswalks.	Shovel ready	\$4,134	OakDOT	
A13	Clement Ave and Tilden Way Complete Streets	Reuse the abandoned railroad right-of-way along the eastern terminus of Clement Ave and Tilden Way to extend the Cross Alameda Trail between Broadway and the Miller-Sweeney/Fruitvale Rail Bridges, while considering ways to improve truck and bus routes.	Shovel ready	\$12,442	ACPWA	
A14	East 12th Street Bikeway Project: Fruitvale-Melrose Gap Closure	<ul> <li>The project proposes:</li> <li>A neighborhood bike route along 54th Avenue between International Boulevard and E 12th Street where the street is too narrow for bike lanes</li> <li>A neighborhood bike route along E 12th Street between 54th Avenue and 44th Avenue where the street is too narrow for bike lanes</li> <li>Protected bike lanes along E 12th Street between 44th Avenue and 40th Avenue to accommodate bi-directional bike travel along the one-way stretch of E 12th Street</li> <li>Buffered bike lanes along E 12th Street between 35th Avenue and 40th Avenue to minimize on-street parking removal and disruptions to school pick-up and drop-off</li> </ul>	Shovel ready	TBD	OakDOT	
A15	High St from Courtland Ave to E 12th St	Improve the safety and comfort of cyclists on High Street from Courtland Avenue to East 12th Street by adding a painted Class II bike lane.	Short-term	\$155	OakDOT	
A16	Foothill Complete Streets	Engage the various communities along Foothill Blvd (a high injury corridor) to plan for capital improvements to address safety concerns and promote active mobility options on this corridor.	Short-term	TBD	OakDOT	

FINAL					
Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency
A17	54th Ave from E 12th St to San Leandro St	Improve the safety and comfort of cyclists on 54th Avenue from East 12th Street to San Leandro Street by adding signage to designate a Class III bike route.	Shovel ready	\$66	OakDOT
A18	54th Ave from International Blvd to E 12th St	Improve the safety and comfort of cyclists on 54th Avenue from International Boulevard to East 12th Street by adding signage to designate a Class III bike route.	Shovel ready	\$110	OakDOT
A19	62nd Ave from South end of 62nd Ave to Avenal Ave	Improve the safety and comfort of cyclists on 62nd Avenue from Tevis Street to Avenal Avenue by adding signage to designate a Class III bike route.	Shovel ready	\$462	OakDOT
A20	66th Ave from Oakport St to San Leandro St (MLK Shoreline to Coliseum BART connection)	Improve the safety and comfort of cyclists along 66th Avenue from Oakport Street to San Leandro Street by adding an off-street Class I bike path. Additionally, the project includes new AC Transit stops at 66th Avenue and Oakport Street	Long-term	\$22,000	OakDOT
A21	Coliseum BART Parking Lot Rd from Snell St to Coliseum BART Parking Lot Access	Improve the safety and comfort of cyclists on Coliseum BART Parking Lot Road from Snell Street to Coliseum BART Parking Lot Access by adding a protected Class IV bike lane	Short-term	\$50	OakDOT
A22	Hegenberger Rd from International Boulevard to San Leandro Street	Improve the safety and comfort of cyclists on Hegenberger Road from International Boulevard to Hawley Street by adding a protected Class IV bike lane	Long-term	TBD	OakDOT
A23	75th Ave from International Blvd to Rusdale Ave	Improve the safety and comfort of cyclists on 75th Avenue from International Boulevard to Rusdale Avenue by adding signage to designate a Class III bike route.	Shovel ready	\$87	OakDOT
A24	75th Ave from Hamilton St to Snell St	Improve the safety and comfort of cyclists on 75th Avenue from Hamilton Street to Snell Street by adding signage to designate a Class III bike route.	Shovel ready	\$193	OakDOT
A25	75th Ave from Rusdale Ave to Hamilton St	Improve the safety and comfort of cyclists on 75th Avenue from Rusdale Avenue to Hamilton Street by adding signage to designate a Class III bike route	Shovel ready	\$66	OakDOT
A26	81st Ave from San Leandro St to Bancroft Ave	This project is a part of the East Oakland Neighborhood Bike Routes that will provide safer and calmer neighborhood streets designed to prioritize people walking and biking to local destinations.	Short-term	\$4,325	OakDOT
A27	85th Ave from International Blvd to San Leandro St	This project is a part of the East Oakland Neighborhood Bike Routes that will provide safer and calmer neighborhood streets designed to prioritize people walking and biking to local destinations.	Short-term	\$4,325	OakDOT

					Chapter
Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency
A28	90th Ave from G St to International Blvd	Improve the safety and comfort of cyclists on 90th Avenue from G Street to International Boulevard by adding signage to designate a Class III bike route.	Shovel ready	\$264	OakDOT
A29	Plymouth Street between 79th Avenue and 104th Avenue	Oakland is repaving 1.5 miles of Plymouth St from 79th Ave to 104th Ave in Fall 2019 with concrete work in Spring 2020. Plymouth St's proximity to schools and residences makes it a priority for paving and transportation safety improvements. Improvement	Shovel ready	\$792	OakDOT
A30	103rd Ave from Royal Ann St to International Blvd	Improve the safety and comfort of cyclists on 103rd Avenue from Royal Ann Street to International Boulevard by adding signage to designate a Class III bike route.	Shovel ready	\$137	OakDOT
A31	105th Ave from Pippin St to International Blvd - buffered	Improve the safety and comfort of cyclists on 105th Avenue from Pippin Street to International Boulevard by adding signage to designate a Class III bike route.	Shovel ready	\$92	OakDOT
A32	San Leandro Boulevard between Creekside Plaza and Park Street	Improve the safety and comfort of cyclists on San Leandro Boulevard from Creekside Plaza to Park Street by adding a painted Class II bike lane.	Shovel ready	TBD	City of San Leandro
A33	San Leandro Creek Trail	Multi-use Trail along San Leandro Creek	Short-term	\$6,400	Alameda County Flood Control
A34	Dan Niemi Way Creek Trail	Narrow Dan Niemi Way and construct a multipurpose trail along the bank of San Leandro Creek, consistent with the San Leandro Creek Trail Master Plan and in coordination with future development on the triangular block of E. 14th St, Hays St and Davis St.	Short-term	\$2,000	City of San Leandro
A35	East 14th Street between Chumalia Street and Estudillo Avenue	Improve the safety and comfort of cyclists on East 14th Street from Chumalia Street to Estudillo Avenue by adding a painted Class II bike Iane.	Shovel ready	\$11	City of San Leandro
A36	East 14th Street/Davis Street Intersection Improvements	Intersection Improvements	Shovel ready	TBD	City of San Leandro
A37	San Leandro Airport Access Rd - Davis St Corridor Improvement - Class IV	Improve the safety and comfort of cyclists on HWY 61 from Airport Access Road to Davis Street by adding a protected Class IV bike lane.	Short-term	\$1,500	City of San Leandro
A38	Williams Street/Washington	Intersection Improvements	Shovel ready	TBD	City of San Leandro

Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency
	Avenue Intersection Improvements				
A39	E. 14th Street Streetscape Improvements	Recommended changes to E. 14th St in San Leandro south of Maud Ave/ Thornton St include a new center median, lane reconfiguration, new crosswalk locations, design guidelines for new development, and streetscape improvements.	Short-term	\$4,000	City of San Leandro
A40	San Leandro Boulevard/Williams Street Intersection Improvements	Intersection Improvements	Short-term	TBD	City of San Leandro
A41	Davis Street/Orchard Avenue Intersection Improvements	Intersection Improvements	Short-term	TBD	City of San Leandro
A42	Davis Street/San Leandro Boulevard Intersection Improvements	Intersection Improvements	Short-term	TBD	City of San Leandro
A43	San Leandro Boulevard/East 14th Street Intersection Improvements	Intersection Improvements	Short-term	TBD	City of San Leandro
A44	San Leandro Boulevard/Washington Avenue Intersection Improvements	Intersection Improvements	Short-term	TBD	City of San Leandro
A45	Davis St Bike Lanes Orchard to SLB	Remove and replace medians and restripe Davis St from Orchard to San Leandro Blvd to add bicycle lanes in both directions as described in the San Leandro BART Pedestrian and Bicycle Improvement Study.	Shovel ready	\$800	City of San Leandro
A46	Washington Avenue Streetscape Improvements	Improve the safety and comfort of pedestrians Washington Avenue in San Leandro by adding a landscaped center street median to slow traffic and provide pedestrian refuges at intersections. Learn more.	Short-term	\$1,000	City of San Leandro
A47	Washington Avenue/Halcyon Drive & Floresta Boulevard crosswalks	Intersection Improvements	Short-term	\$40	City of San Leandro
A48	Washington Avenue between Caliente Drive and 143rd Avenue	Improve the safety and comfort of cyclists on Washington Avenue from Caliente Drive to 143rd Avenue by adding a protected Class IV bike lane.	Short-term	\$237	City of San Leandro

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**Cost Estimates** Project **Project Name Project Description** Implementation Agency ID Term ('000)A49 Intersection Improvements Shovel ready \$100 City of San Hesperian Boulevard/150th Avenue Leandro Intersection Improvements A50 Hesperian Boulevard The Hesperian Boulevard Study Corridor will construct Class IV protected Short-term \$617 City of San between Lewelling bike lane and connect to the existing Class III bike route in San Lorenzo. Leandro Boulevard and East 14th This route is also included on the Alameda Countywide bicycle network. Street Intersection Improvements City of San A51 Hesperian Shovel ready TBD Boulevard/Halvcon Leandro Drive/Fairmont Drive Intersection Improvements Fairmont Drive Road Diet Restripe Fairmont Drive from Hesperian Boulevard to E. 14th Street to TBD City of San A52 Shovel readv & Class IV Bicycle Lanes change the roadway from three lanes to two lanes in each direction, Leandro allow for installation of bicycle lanes protected by concrete medians interspaced with delineators. E. 14th Street Class IV A53 Class IV protected bike lanes: E. 14th Street from Hesperian Boulevard to Short-term \$1,589 City of Hayward South Hayward BART station protected bike lanes A54 East Lewelling Boulevard Close sidewalk gaps, install Class IV bikeways, ADA Ramps, enhance Shovel readv \$15,000 ACPWA Complete Streets (Phase crosswalks, and bulb-outs along East Lewelling Blvd between Meekland 2) Avenue and Langton Way in the Ashland Community, Unincorporated Alameda County A55 San Lorenzo Creekway Improve the safety and comfort of cyclists along the San Lorenzo Creek Short-term \$33,000 HARD, ACPWA between the San Francisco Bay Trail and Don Castro Regional Park by Trail adding an off-street Class I bike path. Mission Boulevard Improve the safety and comfort of cyclists on Mission Boulevard by Short-term \$4,040 City of Hayward A56 adding a separated Class IV bike lane. City of Hayward A57 C St between BART and Increase the safety and comfort of cyclists on C Street between the Shovel ready TBD Hayward BART Station and Mission Boulevard by adding a combination Mission Blvd of painted Class II and separated Class IV bike lanes. A58 Main Street Complete Main St from Mc Keever to D St: Reduce roadway from 4 to 2 lanes, Short-term \$5,000 City of Hayward construct bike lanes, widen sidewalks and add complete street elements Street Improve the safety and comfort of cyclists on A Street by adding a City of Hayward A59 A Street Long-term \$1,459 separated Class IV bike lane.

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Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency
A60	Jackson Street	Improve the safety and comfort of cyclists on Jackson Street by adding a separated Class IV bike lane.	Long-term	TBD	City of Hayward
A61	Mission Blvd single lane reduction and two-way cycle track	Improve the safety and comfort of cyclists on Mission Boulevard from A Street to D Street by adding a protected Class IV bike lane and removing a vehicular lane.	Short-term	TBD	City of Hayward
A62	Downtown Hayward PDA Multimodal Complete Streets	Improve safety and transit quality through multimodal corridors	Short-term	TBD	City of Hayward
A63	Tennyson Rd. Corridor PDA Complete Streets	Improve safety and transit quality through multimodal corridors	Short-term	TBD	City of Hayward
A64	Tennyson Road	Improve the safety and comfort of cyclists on Tennyson Road by adding a separated Class IV bike lane.	Short-term	TBD	City of Hayward
A65	Winton Ave Complete Street	On Winton Ave from Hesperian Blvd to Santa Clara St: Rehabilitate pavement, upgrade curb ramps and streetlights; On Winton Ave just east of Santa Clara St: Landscape median	Shovel ready	\$604	City of Hayward
A66	Fruitvale: BART Walk and Bicycle Network Gap Study	The Study identifies conceptual active access improvements on City/County and BART property.	Short-term	TBD	OakDOT; BART
A67	Coliseum: BART Walk and Bicycle Network Gap Study	The Study identifies conceptual active access improvements on City/County and BART property.	Short-term	TBD	OakDOT; BART
A68	San Leandro: BART Walk and Bicycle Network Gap Study	The Study identifies conceptual active access improvements on City/County and BART property.	Short-term	TBD	City of San Leandro; BART
A69	Hayward: BART Walk and Bicycle Network Gap Study	The Study identifies conceptual active access improvements on City/County and BART property.	Short-term	TBD	City of Hayward; BART
A70	South Hayward: BART Walk and Bicycle Network Gap Study	The Study identifies conceptual active access improvements on City/County and BART property.	Short-term	TBD	City of Hayward; BART
\$1	Foothill Blvd Corridor Improvements (Phase 1)	Safety improvements along Foothill Blvd between Harrington and Cole Streets, including bulb-outs; pedestrian median refuge islands; crosswalk enhancements; rectangular rapid flashing beacons; speed cushions; signage; and refreshed roadway striping.	Shovel ready	\$15,000	OakDOT, AC Transit

**Implementation** Cost Estimates Project **Project Name Project Description** Agency ID Term ('000)S2 East Oakland Lighting International Blvd and Bancroft Ave Short-term TBD OakDOT Study International Boulevard Improve the safety and comfort for pedestrians on International Short-term OakDOT S3 TBD BRT crossing safety Boulevard from Seminary Avenue to the southern border of the City of improvement Oakland by adding crosswalk safety improvements. S4 69th Avenue Safety Improve the safety and comfort of pedestrians, cyclists, and drivers on Shovel ready TBD OakDOT 69th Avenue between International and San Leandro Boulevards by Improvements paving the roadway, reducing vehicle speeds using speed humps, and adding high visibility crosswalks. S5 73rd Avenue/ Improve the safety and comfort of transit users, pedestrians, and cyclists Shovel ready \$20,000 OakDOT on 73rd Ave / Hegenberger Road to connect both the Eastmont Transit Hegenberger Rd Center and the Coliseum BART Station by improving connections to the Improvements BRT on International Boulevard. E. 14th Street and Re-alian the east leg of the intersection so that Ashland Avenue connects ACPWA S6 Shovel readv TBD to E. 14th Street at a 90-degree angle. Ashland Avenue Intersection Mission Boulevard and E. Eliminate the large channelized right-turn from southbound Mission to S7 Short-term TBD ACPWA Lewelling Boulevard westbound Lewelling. To the extent feasible re-align the east leg of the Mission/Lewelling intersection so that Lewelling connects to Mission at a 90-dearee anale. S8 D Street Traffic Calming In response to concerns expressed by the community, staff will soon be Short-term TBD City of Hayward developing a feasibility study to identify opportunities to improve & Implementation pedestrian and bike safety, as well as reduce excessive vehicle speeds, along the D Street corridor. T1 Capitol Corridor South Relocate Capitol Corridor service between Oakland Coliseum and Capitol Corridor Long-term \$305,000 Bay Connect Rail Newark from the Niles Subdivision to the Coast Subdivision, including one Joint Powers new rail station, one new in-line intermodal bus facility, and enhanced Authority park-and-ride facilities. T2 Fruitvale Avenue/Park An Enhanced Bus strategy is proposed for 2020 for the Fruitvale Ave/Park Short-term \$61,000 OakDOT Street Transit Street corridor, with upgrades being made to those improvements by 2040 to keep pace with changing technologies. Improvements T3 Mobility Hubs at BART Mobility Hub at San Leandro, Bay Fair, Hayward and South Hayward BART \$200,000 City of San Long-term Stations stations Leandro, and Hayward; BART

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Project ID	Project Name	Project Description	Implementation Term	Cost Estimates ('000)	Agency
T4	San Leandro BART to South Hayward BART Bus Only Lanes	Bus-only lanes: From San Leandro BART south on San Leandro Blvd to East 14th St. and Mission Blvd. to South Hayward BART	Long-term	\$350,000	AC Transit
T5	E. 14th St/Mission/Fremont Blvd Rapid Bus   Modernization	New limited stop rapid bus service along E. 14th St/Mission Blvd between the South Hayward BART station and Warm Springs BART station in Fremont, include transit priority signals and queue jump lanes.	Long-term	\$330,000	AC Transit
T6	Bay Fair Connection	BART: At and near Bay Fair Station: Modify station and approaches to add one or more additional tracks and one or more passenger platforms for improved train service and operational flexibility	Long-term	\$23,400	BART
MI	Oak Street and Madison Street - Conversion of One-way traffic to two- way traffic	Conversion from one-way traffic to two-way traffic and, sidewalk widening to add to the pedestrian realm.	Long-term	TBD	OakDOT
M2	SHOPP Mobility - TMS	SR 185 (East 14 <sup>th</sup> Street/ International Blvd) between Post Miles 3.205 - 10.519 FY 26/27 (SHOPP ID 23020)	Short-term	\$15	Caltrans
М3	SHOPP Mobility - ADA	SR 185 (International Blvd) between Post Miles 3.205 - 5.0 FY 29/30 (SHOPP ID 20459)	Short-term	\$7	Caltrans
M4	San Leandro Street repaving along railroad tracks	Seminary Ave to South City Limit Repaving	Shovel ready	TBD	OakDOT
M5	SHOPP Pavement	SR 185 (East 14 <sup>th</sup> Street/ International Blvd) between Post Miles 3.205 -5.7 FY 21/22 (SHOPP ID 13654)	Shovel ready	\$22	Caltrans
M6	SHOPP Mobility - ADA	SR 185 (East 14 <sup>th</sup> Street/ International Blvd) between Post Miles 9.08 - 10.1 FY 21/22 (SHOPP ID 16381)	Shovel ready	\$6	Caltrans
M7	SHOPP Pavement	SR 238 between Post Miles 13.96 - 16.7 FY 26/27 (SHOPP ID 23035)	Short-term	\$15	Caltrans
M8	Mission Blvd and Foothill Blvd - St. 2-way conversion	Converting Foothill and Mission Boulevards to two-way streets and reconstructing the intersection at Foothill Boulevard, Mission Boulevard and D Street to support two-way movements.	Long-term	\$4,591	City of Hayward

Note: TBD - To be determined.

#### Figure 1-3: Recommended Projects (1 of 4)



#### Chapter 1

#### Figure 1-4: Recommended Projects (2 of 4)



#### Figure 1-5: Recommended Projects (3 of 4)



#### Chapter 1

#### Figure 1-6: Recommended Projects (4 of 4)



# 1.5 Major Concerns and Key Findings

The state of safety, mobility, reliability, and sustainability from the performance and needs assessment are listed below by topic. The detailed analysis is presented in Chapters 5 and 7.

#### Safety

Safety is a priority goal of the CMCP and a critical issue in the study area. Pedestrian-involved collisions resulted in the highest number of fatalities and serious injuries of any mode within the study area. The majority of bicycle and pedestrian fatalities and serious injuries within the CACCMCP study area have occurred in Equity Priority Communities (EPCs) or Disadvantaged Communities (DACs).

Clusters of fatalities and serious injuries appear near Lake Merritt, Bay Fair and Hayward BART Stations and along International Boulevard, suggesting that transit riders within the study area face barriers to accessing transit stops safely.

The CACCMCP study area contains a high percentage of the Alameda County High Injury Network (HIN). Nearly 34 percent of the CACCMCP corridors are classified as part of the HIN. The HIN represents roughly the top 20 percent of streets with the worst outcomes (i.e., most collision and/or most severe collisions over a five-year period countywide).<sup>4</sup>

International Boulevard between 1<sup>st</sup> Avenue and 42<sup>nd</sup> Avenue had the highest number of fatalities and serious injuries within the CACCMCP study area from 2015 to 2019, with half of them related to non-motorized transportation. The safety analysis period (2015-2019) does not include the improvements related to AC Transit's Tempo BRT service that began operation in August 2020.

The implementation of recommended projects will help in reducing fatalities and severe injuries within the CACCMCP study area.

#### Mobility

Forecast Year 2040 (no project) traffic volumes for the CACCMCP study area show a 30 percent traffic growth with corresponding declines in vehicle speeds. With the increase in traffic volumes, both freeways in the study area (I-880 and I-238) will operate under worsening congested conditions with speeds further decreasing by a range of 15 to 30 percent.

With the implementation of recommended CACCMCP projects, both the Oakland and San Leandro Subareas of the study area would have a minor increase of average auto speeds (0.1 percent), and the Unincorporated Subarea would have no change in speed. The Hayward Subarea is projected to have a 4.4 percent reduction in overall speeds due to the conversion of Downtown one-way loops to two-way streets (Project M8). In total, the CACCMCP study area would have a 0.9 percent decrease in average auto speeds.

<sup>&</sup>lt;sup>4</sup> Alameda CTC, Countywide Active Transportation Plan, June 2019, <u>https://www.alamedactc.org/planning/countywide-bicycle-and-pedestrian-plans/</u>.

With the increase in traffic volumes, the study area under 2040 No Project conditions will add roughly 29,000 hours (79 percent increase) of daily vehicle delay by 2040. Implementation of recommended projects would result in a further increase in daily vehicle hours of delay by 3,000 hours (4.7 percent). Consequently, this would increase the person hours of travel time delayed by 4,312 hours (5.1 percent). As with the auto speed measures, the implementation of CACCMCP projects would decrease delay in the Oakland and San Leandro Subareas, but auto delays would increase in the Hayward Subarea with the proposed conversion of one-way streets.

Within study area freeways, a bottleneck forms on I-880 near Edes Avenue and Hegenberger Road in the eastbound direction at approximately 4:00 PM and does not dissipate until 7:00 PM. On I-238, bottlenecks are observed near the I-880 interchange in the eastbound direction during the morning peak period and near the I-580 interchange in the westbound direction during the evening peak period.

BART stations are accessible for 11 percent of the geographical CACCMCP study area by a 10minute walk and for 83 percent of the CACCMCP study area by a 10-minute bike ride.<sup>5</sup> However, due to the lack of bicycle and pedestrian facilities, only 20 percent of the commute trips are made using non-automobile modes. This is comparable to Alameda County as a whole, where about 23 percent of commute trips are done by non-auto modes, but the county includes large rural and suburban communities that are not close to BART stations. Implementation of active transportation projects will shorten the commute distance for bicyclists and pedestrians. For instance, the cycling distance between Lake Merritt BART Station to South Hayward Station via Bancroft Avenue (recommended route) is 18.5 miles. After implementing the East Bay Greenway Urban Trail (Phase 2), the distance will be reduced to 16 miles (reduction by 14 percent and of 10 minutes).

Within the broader community, there is a spectrum of types of bicyclists with varying levels of comfort and skill. Improvements such as Class I multi-use paths and Class IV separated bikeways will result in a low-stress bikeway network that encourages all types of bicycle riders. Presently, there are approximately 9 miles of Class I facilities and 3 miles of Class IV facilities within the CACCMCP study area. Local and regional planning documents indicate that additional 18 miles of Class I and 17 miles of Class IV facilities are planned within the CACCMCP study area, contributing to developing a bike network that is suitable to all ages and abilities.

#### Reliability

Both freeways (I-880 and I-238) within the CACCMCP study area are among the Alameda County's top 10 least reliable roadway segments. With some exceptions, both freeways have frequent and recurring congestion within the CACCMCP study area due to a combination of demand exceeding freeway capacity plus incidents and collisions.

AC Transit buses are frequently delayed. The on-time performance of routes 14, 28, 34, 40, 93 and 96 is less than 72 percent, which is a goal set by AC Transit for its service. The schedulebased daily delay for transit routes serving the CACCMCP study area is 462 minutes, and the speed-based delay is 4,820 minutes.

<sup>&</sup>lt;sup>5</sup> ABAG, Transit Rich PDAs, <u>https://mtc.ca.gov/planning/land-use/priority-development-areas-pdas.</u>

#### Sustainability

Without the recommended projects, the CACCMCP study area will observe a 15 percent increase in Vehicle Miles Traveled (VMT) and a 26 percent increase in Vehicle Hours of Travel (VHT) by 2040. Consequently, the CACCMCP study area will generate an increase in CO<sub>2</sub> emissions by 19 percent.

With implementation of CACCMCP projects, the study area would have a reduction of 0.9 percent in VMT including a reduction of 1.7 percent within the Hayward Subarea. The implementation of CACCMCP projects is projected to cause a small increase (110 hours) in total VHT, with reductions in Oakland and San Leandro and increases in Hayward.

In terms of air quality, VMT reductions are directly related to greenhouse gas emissions, and would proportionally reduce the amount of nitrogen dioxide (NOx), sulfur oxides (SOx), particulate matter 2.5 (PM 2.5), and carbon dioxide (CO2) similar to the reductions in VMT.

Currently, 5.9 percent of all trips within the CACCMCP study area are walkable (within 0.5 miles) and 52.1 percent are bikeable (within 3 miles) under existing conditions. These trips are expected to grow to 6 percent walkable trips and 53.9 percent bikeable trips in 2040. The increase in number of walkable and bikeable trips in the future is partially explained by more planned in-fill and mixed-use development.

# 1.6 Strategies

A total of 92 projects were compiled including 70 active transportation, 8 safety, 6 transit, and 8 multimodal projects. Projects were assessed based on their ability to satisfy the goals, objectives, and performance metrics established by the Alameda CTC and TAC and others as recommended in CMCP guidelines. Each project was gauged for the selected criteria and assigned a "HIGH," "MEDIUM," or "LOW" score on each project's ability to address each criterion.

### Project Evaluation Methodology and Results

#### Safety

The safety evaluation rated projects on their ability to reduce severe and fatal injuries and reduce collisions for those outside of vehicles (i.e., pedestrians and cyclists). Projects that provide high-quality facilities for pedestrians and cyclists such as Class I shared-use paths or Class IV separated bike lanes along high injury network (HIN) received a "HIGH" score; nearly half, or 46 projects received this designation. Thirty-three percent of the projects received a "MEDIUM" score which was assigned to all projects that contributed to the safety of cyclists or pedestrians but were not on HIN streets. All others received a "LOW" score. In total, 83 percent of all projects recommended in the CACCMCP would contribute to the safety of pedestrians and cyclists.

#### Equity

Projects were evaluated on their ability to improve connections of residents in Equity Priority Communities (EPCs) and Disadvantaged Communities (DACs) by their ability to provide accessible, affordable, and equitable transportation. Projects that invest in both types of underserved areas received a "HIGH" score. Projects that would improve transportation in one of these types of areas but not both received a "MEDIUM" score. One hundred percent of projects proposed serve either an EPC or DAC with 62 percent of projects overlapping with both types.

#### **Travel Reliability**

Travel Reliability considers the ability for projects to enhance corridor efficiency by reducing street delays and improving transit reliability. Transit projects were deemed the best to meet these goals and were the only projects that scored as "HIGH," making up 13 percent of all projects. Other projects that would provide a high-quality active transportation alternative were given a score of "MEDIUM" and make up 21 percent of projects. All other projects received a "LOW" score. In total, 34 percent of the projects would increase travel reliability.

#### Land Use

Residents who live in areas of denser urban forms with diverse land uses and access to safe and convenient car alternatives are less likely to drive. Projects that help support efficient land uses by investing in transit, active transportation, or multimodal projects within transit-rich Priority Development Areas (PDAs) are rated "HIGH." Projects that help provide access to transit-rich PDAs are ranked as "MEDIUM." Eighty-two percent of all CACCMCP projects would either be located in or help connect people to transit-rich PDAs.

#### **Public Health and Environment**

Projects were evaluated for their ability to reduce greenhouse gas (GHG) emissions and/or pollution that negatively impacts health outcomes. Transportation projects can help reduce such emissions by limiting the overall vehicle miles traveled (VMT) by cars. Projects that promote non-motorized forms of transportation such as active transportation or transit projects scored "HIGH" in this category, which is the case with 89 percent of the projects on the list that promote alternative forms of transportation. Those that would reduce vehicle congestion scored "MEDIUM" (assuming emissions are related to queued vehicles) such as the SHOPP project on the list that directly reduces vehicle congestion and received a "medium score. All other projects were assigned a "LOW" score.

#### **Community Revitalization Evaluation**

Community revitalization is intended to measure the degree of community support and ability of a project to contribute to placemaking. It is important to note that there is no way to definitively reach a singular "community voice," but community outreach provides a general sense of how a subset of the public reacted positively or negatively to the projects proposed or if the projects aligned with some of their expressed concerns. Extensive outreach was done to try to collect as many viewpoints and perspectives as possible and is fully discussed in Chapter 6. Projects that received significant support—as expressed through comments on an online feedback tool received a "HIGH" score. During public outreach, there was consistently significant concern about the safety of pedestrians and bicyclists. Projects that would directly contribute to the safety of pedestrians and bicyclists or contribute to placemaking (such as streetscape improvements) were rated "MEDIUM". In total, 54 percent of projects either received significant community support or directly addressed community concerns.

# 2. Evaluation Framework

The goals, objectives, and performance measures for the Central Alameda County Comprehensive Multimodal Corridor Plan (CACCMCP) form the basis of an evaluation framework that lays the groundwork for project evaluation and prioritization in the study area. The CACCMCP's goals and objectives are informed by State and regional policies and plans. This chapter provides a policy overview followed by the CACCMCP evaluation framework.

# 2.1 State Guiding Documents and Policies

Several key State plans, policies, and guidelines pertaining to multimodal infrastructure development provide a foundation for the CACCMCP evaluation framework. These include California Transportation Commission (CTC) guidelines, Caltrans plans and policies, and other State policies.

### Caltrans Policy Development

System Planning is the long-range transportation planning process for Caltrans. The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by identifying deficiencies and proposing improvements to the SHS. Through System Planning, Caltrans focuses on developing System Planning products that address integrated multimodal transportation system needs and help advance Caltrans' mission, vision and goals. Over the past several years, especially with the passage of county-level sales tax measures for transportation funding, Caltrans has worked closely with local agencies such as the Alameda County Transportation Commission (Alameda CTC) and the Metropolitan Transportation Commission (MTC) to conduct system planning for the SHS.

This CACCMCP was developed in alignment with the goals, objectives and performance targets outlined in Caltrans Strategic Management Plan 2020-2024<sup>4</sup>. It is consistent with recommendations from the System Planning to Programming (SP2P) study and the Planning for Operations (P4Ops) Strategic Work Plan, both developed in 2017 by Caltrans Headquarters to help redefine System Planning's roles and products. It also follows the corridor planning process described in Caltrans Corridor Planning Process Guide, adopted in 2020<sup>7</sup>.

### Solutions for Congested Corridors Program Guidelines, 2022

The Road and Repair Accountability Act of 2017, also known as Senate Bill 1 (SB 1), provides the first significant, stable, and on-going increase in State-directed transportation funding in more than two decades. SB 1 presents a balance of new resources and reasonable reforms to ensure efficiency, accountability, and performance from each dollar invested to improve California's transportation system.

<sup>&</sup>lt;sup>6</sup> Caltrans 2020-2024 Strategic Plan, Retrieved From: <u>https://dot.ca.gov/-/media/dot-media/programs/risk-</u> strategic-management/documents/sp-2020-16p-web-a11y.pdf

<sup>&</sup>lt;sup>7</sup> 2020. Corridor Planning Process guide. Retrieved From: <u>https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/system-planning/corridor-planning-process-guide</u>

Among the multiple programs established by SB 1 is the Solutions for Congested Corridors Program (SCCP).<sup>8</sup> This program provides \$250 million annually on a competitive basis to Caltrans and regional agencies for projects designed to achieve a balanced set of transportation, environmental, and community access improvements within highly congested travel corridors throughout the State. In addition to be included in a CMCP, eligible projects should make specific performance improvements designed to reduce congestion in highly traveled corridors by providing multimodal transportation choices for residents, commuters and visitors to the area while preserving the character of the local community and creating opportunities for neighborhood enhancements.

SCCP-eligible projects include improvements to state highways, local streets and roadways, public transit facilities, bicycle and pedestrian facilities, and restoration or preservation work that protects critical local habitats or open spaces. To control increases in vehicle miles traveled (VMT), greenhouse gases (GHG) and air pollution, highway lane capacity-increasing projects funded by the program are limited to high occupancy vehicle (HOV) lanes, managed lanes, and other non-general purpose lane improvements such as auxiliary lanes, truck-climbing lanes and dedicated bicycle lanes.

### Comprehensive Multimodal Corridor Plan Guidelines, 2018

The California Transportation Commission (CTC) adopted the 2018 Comprehensive Multimodal Corridor Plan Guidelines on December 5, 2018. The Guidelines prescribe a corridor planning process that largely mirrors what is outlined in the draft Caltrans Corridor Planning Guidebook. They include sections and topics a CMCP should consider as well as performance measures that are consistent with the 2022 Solutions for Congested Corridors Program Guidelines.

The guidelines provide some examples of state policies and goals that should be considered in the corridor planning process. Transportation planning goals relevant to the CACCMCP include increasing transportation safety for all users, preserving and enhancing existing infrastructure, improving multimodal mobility and accessibility, prioritizing transportation sustainability, and supporting economic development and the efficient movement of freight.<sup>9</sup> The guidelines also highlight overarching objectives of the corridor planning process:

- Defining multimodal transportation deficiencies and opportunities for optimizing system operations
- Identifying the types of projects necessary to reduce congestion, improve mobility, and optimize multimodal system operations along highly traveled corridors
- Identifying funding needs
- Furthering state and federal ambient air standards and greenhouse gas (GHG) emission reduction standards pursuant to the California Global Warming Solutions Act of 2006<sup>10</sup> and Senate Bill 375

<sup>&</sup>lt;sup>8</sup> California Transportation Commission, Solutions for Congested Corridor Program Guidelines, <u>https://catc.ca.gov/-/media/ctc-media/documents/programs/sccp/08-17-22-adopted-2022-sccp-guidelines.pdf</u>, accessed on August 19, 2022

<sup>&</sup>lt;sup>9</sup> California Transportation Commission, Comprehensive Multimodal Corridor Plan Guidelines, <u>https://catc.ca.gov/programs/sb1/solutions-for-congested-corridors-program/comprehensive-multimodal-corridor-plan-guidelines</u>, accessed on March 1, 2022.

<sup>&</sup>lt;sup>10</sup> California Air Resource Board, AB 32 Global Warming Solutions Act of 2006, <u>https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006</u>
- Preserving the character of local communities and creating opportunities for neighborhood enhancement
- Identifying projects that achieve a balanced set of transportation, environmental, and community access improvements

The document also details five statutory requirements that all CMCPs must meet:

- Be designed to reduce congestion in highly traveled corridors by providing more transportation choices for residents, commuters, and visitors to the area of the corridor while preserving the character of the local community and creating opportunities for neighborhood enhancement projects.
- 2. Reflect a comprehensive approach to addressing congestion and quality of life issues within the affected corridor through investment in transportation and related environmental infrastructure.
- 3. Be developed in collaboration with state, regional, and local partners.
- 4. Evaluate the following criteria, as applicable safety, congestion, accessibility, economic development including job creation and retention, air quality and greenhouse gas emissions reduction, and efficient Land Use.
- 5. Be consistent with the goals and objectives of the Regional Transportation Plan.

### State Plans and Policies

The following plans and policies provide guidance on transportation planning priorities at the state level.

#### California Transportation Plan 2050

The Caltrans California Transportation Plan 2050 (Caltrans CTP 2050), last updated in 2021, provides a blueprint for developing transportation infrastructure that prioritizes equity, safety, environmental sustainability, multimodal integration, and efficiency. The Caltrans CTP focuses on people-focused policies, strategies, and investments that help create a safe, resilient, and universally accessible transportation system supportive of vibrant communities, racial and economic justice, and improved public and environmental health. In addition to providing this broad framework for what multimodal transportation system planning should strive to achieve, the Caltrans CTP highlights key trends, challenges, and opportunities facing the state, as well as eight goals for the statewide transportation system. These goals are listed below:<sup>11</sup>

- Safety: Provide a safe and secure transportation system
- Climate: Achieve statewide GHG emissions reduction targets and increase resilience to climate change
- Equity: Eliminate transportation burdens for low-income communities, communities of color, people with disabilities and other disadvantaged groups
- Accessibility: Improve multimodal mobility and access to destinations for all users
- Quality of Life and Public Health: Enable vibrant, healthy communities
- Economy: Support a vibrant, resilient economy

<sup>&</sup>lt;sup>11</sup> California State Transportation Agency, California Transportation Plan 2050, <u>https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf</u>, accessed March 1, 2022.

- Environment: Enhance environmental health and reduce negative transportation impacts
- Infrastructure: Maintain a high-quality, resilient transportation system

#### Complete Streets Policy, 2014

Caltrans Complete Streets Policy, adopted in 2014 and revised in 2021, requires Caltrans to accommodate the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products of the State Highway System. It also requires Caltrans to develop integrated multimodal projects and facilitate bicycle, pedestrian, and transit travel by creating a network of "Complete Streets."<sup>12</sup> This policy guides multimodal planning along key corridors and state highways in the study area.

#### Smart Mobility Framework, 2020

The Caltrans Smart Mobility Framework (SMF) lays out a vision for how to achieve widely accessible multimodal travel choices, livable communities, and a robust and sustainable economy.

The SMF guides implementation of multimodal transportation strategies in a manner that supports development of compact and sustainable communities. It does so by linking development policies to transportation systems and housing choices. Caltrans' Smart Mobility 2010: A Call to Action for the New Decade,<sup>13</sup> developed in partnership with the US Environmental Protection Agency, the Governor's Office of Planning and Research, and the California Department of Housing and Community Development, provides concepts and tools that jurisdictions can use to incorporate smart mobility principles into all phases of transportation decision-making.

Caltrans Smart Mobility Framework Guide 2020, an update to Smart Mobility 2010, introduced revised strategies, performance measures, and analytical methods for implementing smart mobility. These are organized around five themes:

- Network management,
- Multimodal choices,
- Speed suitability,
- Accessibility and connectivity, and
- Equity.14

The guide also describes the application of five "place types" based on location, land use, density, and other characteristics to identify transportation planning and project development priorities across the state. These place types include:

- 1. Central Cities
- 2. Urban Communities

<sup>&</sup>lt;sup>12</sup> Caltrans, Deputy Directive DD-64-R2, Caltrans to Require 'Complete Streets' Features in Planning and Design of All New Projects, <u>https://dot.ca.gov/news-releases/news-release-2021-039</u>, accessed February 28, 2022.

<sup>&</sup>lt;sup>13</sup> Caltrans, Smart Mobility 2010, <u>https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/office-of-smart-mobility-and-climate-change/smf-handbook-062210-a-a11y.pdf</u>, accessed on May 28, 2022.

<sup>&</sup>lt;sup>14</sup> Caltrans, Smart Mobility Framework Guide, <u>https://www.localassistanceblog.com/2021/11/22/caltrans-smart-mobility-framework-guide/</u>, accessed May 28, 2022.

- 3. Suburban Communities
- 4. Rural Areas
- 5. Protected Lands and Special Use Areas

Each of the place types corresponds to transportation planning priorities and serves as a guide, not a rule, for the development of recommendations. Planners consider the specific characteristics of a given planning area in addition to local, regional, and State plans when recommending strategic transportation system investments.

#### Caltrans District 4 Bike Plan, 2018

The Caltrans District 4 Bicycle Plan (D4BP) was completed in 2018. The overarching purpose of this plan is to implement the vision statement and four goals are described in Toward an Active California, the statewide bicycle and pedestrian plan published in 2017. These goals are:

- 1. Mobility reduce dependency on motor vehicle travel through mode shift to bicycling, walking, and transit
- 2. Safety facilitate safe travel for all users (modes) and abilities, as expressed through Toward Zero Deaths (Caltrans) and Vision Zero (local agencies) initiatives
- 3. Equity promote active transportation solutions within the district by improving accessibility and healthy transportation options for disadvantaged communities
- 4. Preservation ensure district active transportation strategies and actions adequately discuss the long-term maintenance needs and resources required to maintain a state of good repair for state highways.

Based on these goals, the D4BP identifies opportunities for complete streets investments by Caltrans and projects eligible for Active Transportation Program funding. The plan considers all bicycle trips but prioritizes utilitarian bicycle travel to work, school, shopping, connecting to transit, or other similar purposes. The plan also highlights stakeholder needs such as safety, comfort, intuitive highway crossings and interchanges as priorities. Furthermore, it addresses bicycle parking needs and other supporting infrastructure.

The bicycling need on the State Highway System (SHS) was identified by analyzing potential challenges and barriers using:

- State Safety Data using the Statewide Integrated Traffic Records System (SWITRS) which includes density of collisions weighted by severity.
- Level of Traffic Stress on each segment and crossing of the SHS, coded for its level of traffic stress.
- Community engagement

Figure 2-1 shows a screenshot from District 4 Bike Plan Web Map<sup>15</sup> that identifies projects in the CACCMCP study area.

<sup>&</sup>lt;sup>15</sup> Caltrans. District 4 Bike Plan Web Map. <u>https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=91f1bb4eb7ff418092977b762b459d</u> <u>01</u>, accessed on July 1, 2022



Figure 2-1: District 4 Bike Plan Web Map

For the CACCMCP study area, International Boulevard between 69<sup>th</sup> Avenue and 95<sup>th</sup> Avenue has been identified as a high stress and high demand bicycle corridor.

#### Caltrans District 4 Pedestrian Plan, 2021

The Caltrans District 4 Pedestrian Plan, completed in 2021, is also structured around achieving the vision and goals laid out in Toward an Active California, described above. Based on these goals, the Pedestrian Plan identifies investments to support walking, connecting people with opportunities, and reconnecting previously divided communities. The plan addresses high priority needs along and across the State Transportation Network (STN), including the State Highway System (SHS) and all other multimodal facilities owned and operated by Caltrans, including parallel paths, frontage roads and other facilities not directly on an SHS mainline. During outreach, key deficiencies highlighted included missing sidewalks, intersections without marked crosswalks, and uncontrolled intersections.

Caltrans evaluated data about the highway system from its own inventories, from local and regional plans published prior to 2020, and from extensive public input to determine where gaps and barriers in walking infrastructure are present. Locations were identified as having needs if they met one or more of the following criteria.

- Main street sidewalk gaps
- Sidewalks in fair or poor condition
- Sidewalks along high-speed highways
- Stressful pedestrian crossings (accounting for absence of median islands and marked crossings, posted speed limits, and other factors)
- Infrequent opportunities to cross under or over freeways
- Freeway crossings requiring upgrades of various kinds to be more comfortable for people walking

**Figure 2-2** shows the District 4 Pedestrian Plan Story Map<sup>16</sup> that identifies location-based pedestrian infrastructure needs in the Bay Area.





The segments along International Boulevard/E. 14<sup>th</sup> Street/Mission Boulevard from 42nd Avenue in Oakland to Grove Way in Cherryland has been identified as the highest priority (Tier-1) pedestrian need.

#### North Alameda County Truck Access Management Study, 2021

The North Alameda County Truck Access Management Study (NACTAMS) describes freight truck operations in Northern Alameda County, with a focus on trucks between local destinations and the highway system. The NACTAMS assesses truck freight movement and provides specific recommendations on how to improve efficiency while minimizing negative impacts of trucks on residents of Northern Alameda County. Six goals included in the plan further highlight this direction:

- 1. Facilitate cross-jurisdictional freight planning
- 2. Review how freight route traffic interacts with residential and production areas
- 3. Identify limitations that cause trucks to leave highways and truck routes
- 4. Identify freight patterns and roadway performance
- 5. Evaluate future conditions for freight movement
- 6. Develop implementable strategies that can be adopted and make funding recommendations

#### Caltrans D4 SR 185 Transportation Concept Report, 2013

The purpose of a Transportation Concept Report (TCR) is to communicate Caltrans long range (25-year) vision for a State Route. The concept is based on current and projected operating conditions and acknowledges both programmed and planned transportation improvement projects along a route. A TCR may also recommend basic mobility strategies and conceptual

<sup>&</sup>lt;sup>16</sup> Caltrans. District 4 Pedestrian Plan Story Map. <u>https://storymaps.arcgis.com/stories/9a25b6f7dcf146328663b62660a0b6f9</u>, accessed on July 22, 2022

projects which warrant further analysis. The State Route 185 (SR 185) TCR, completed in partnership with local jurisdictions and Congestion Management Agencies (CMA), serves as one source of guidance for future development of a route. This TCR provides a long-term vision for the SR 185 Corridor, which entails relinquishment of the route in Hayward and the completion of the AC Transit BRT system in San Leandro and Oakland, over a 25-year planning horizon. The route relinquishment will shorten it by 3.3 miles and the BRT will alter the type and nature of transit demand and have a significant impact on the 25-year concept.<sup>17</sup>.

#### Caltrans Adaption Priorities Report, 2020

The purpose of this report is to prioritize assets to climate hazards through detailed asset-level climate assessments. Since there are many potentially exposed assets in the district, work will need to be done sequentially according to their priority level. The detailed assessment prioritization considers, amongst other things, the timing of the climate impacts, their severity and extensiveness, the condition of each asset (a measure of the sensitivity of the asset to damage), the number of system users affected, and the level of network redundancy in the area. Prioritization scores are generated for each potentially exposed asset based on these factors and used to rank them. Though it is likely that climate change will cause a wide array of hazards that will impact many physical asset categories, this report is focused on bridges, large culverts, small culverts, and roadways<sup>18</sup>.

#### Caltrans Climate Change Vulnerability Assessments - District 4, 2019

The report summarizes vulnerability assessments conducted for assets in Caltrans District 4. These assessments were developed to specifically identify the potential effects of climate change on the State Highway System in District 4. It is intended, in part, as a transportation practitioner's guide on how to include climate change into transportation decision-making<sup>19</sup>.

### 2.2 Regional Plans and Policies

Similar to state level policies, regional transportation plans provide a policy framework for prioritizing projects in the study area. Descriptions of the regional and county plans are provided below.

#### 2050 Plan Bay Area, 2021

Plan Bay Area 2050, adopted in 2021, a Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), is a long-range (30-year) \$1.4 trillion plan developed by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) focused on creating a more affordable, connected, diverse, healthy, and vibrant Bay

<sup>&</sup>lt;sup>17</sup> Caltrans. District 4. Transportation Concept Reports (TCRs). Retrieved from <u>https://dot.ca.gov/caltrans-near-me/district-4/d4-programs/d4-transplanning-local-assistance/d4-office-of-system-and-regional-planning/d4-osrp-documents</u>

<sup>&</sup>lt;sup>18</sup> Caltrans. District 4. 2020 Adaptation Priorities Reports. Retrieved from <u>https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/air-quality-and-climate-change/2020-adaptation-priorities-reports</u>, accessed on May 22, 2022

<sup>&</sup>lt;sup>19</sup> Caltrans District 4. 2019 Climate Change Vulnerability Assessments. Retrieved from <u>https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/air-quality-andclimate-change/2019-climate-change-vulnerability-assessments</u>, accessed on May 22, 2022

Area. This plan is based on five guiding principles that provide a framework for its policies and implementation strategies<sup>20</sup>. These principles consist of the following:

- 1. Affordable ensure all Bay Area residents and workers have sufficient access to housing options they can afford and that households are economically secure
- 2. Connected provide an expanded, well-functioning, safe and multimodal transportation system that connects the Bay Area, and provide infrastructure supporting fast, frequent and efficient intercity trips, complemented by a suite of local transportation options, connecting communities and creating a cohesive region
- 3. Diverse ensure the Bay Area is an inclusive region where people from all backgrounds, abilities and ages can remain in place with access to the region's assets and resources
- Healthy ensure the region's natural resources, open space, clean water and clean air are conserved and that the region actively reduces its environmental footprint and protects residents from environmental impacts
- 5. Vibrant ensure the Bay Area region is an innovation leader by creating job opportunities for all and ample fiscal resources for communities.

A core set of 35 strategies translate these plan principles into actionable steps that can be employed throughout the Bay Area's nine counties to support sustainable housing, economic, transportation and environmental planning. The plan calls to support community-led transportation enhancements in Equity Priority Communities, which will require public agencies to dedicate funding specifically for these projects and build trusting, collaborative relationships with these communities.

While Plan Bay Area 2050 uses a year 2050 analysis for future conditions, the CACCMCP uses a 2040 analysis year. This is because the CACCMCP analysis uses the Alameda Countywide Model, which has a year 2040 horizon, to allow for analyzing local bicycle and street network improvements. Use of the Alameda Countywide Model also allows for the analysis of CACCMCP transportation projects separately from the regional land use policies and assumptions that are included in the Plan Bay Area 2050 analysis.

#### East Bay Regional Park District Plan, 2013

The East Bay Regional Park District (EBRPD) provides and manages the regional parks for Alameda and Contra Costa counties, a 1,400 square mile area that is home to 2.6 million people and forms the eastern shoreline of San Francisco Bay. The Master Plan defines the overall mission and vision for the Park District. It contains the policies and descriptions of the programs in-place for achieving the highest standards of service in resource conservation, management, interpretation, public access and recreation. The policies contained in this plan guide the stewardship of the parks. The goal is to maintain a careful balance between the need to provide opportunities for recreational use of the parklands, both now and in the future. The plan identifies the San Francisco Bay Trail and East Bay Greenway Trail as potential regional trails<sup>21</sup>.

<sup>&</sup>lt;sup>20</sup> Metropolitan Transportation Commission. 2050 Plan Bay Area. https://www.planbayarea.org/finalplan2050, accessed May 28, 2022.

<sup>&</sup>lt;sup>21</sup> East Bay Regional Park District. Master Plan (2013). Retrieved from <u>https://www.ebparks.org/master-plan</u>

#### Bay Area Rapid Transit (BART) Walk and Bicycle Network Gap Study, 2020

The BART Walk and Bicycle Network Gap Study documents a planning process that took place in 2017-2020. It identifies conceptual access improvements to make walking and biking to and from the 17 BART stations safer and easier. The following five BART stations (out of seven within the study area) were included in this study:

- Coliseum
- Fruitvale
- San Leandro
- Hayward
- South Hayward

This study is not meant to substitute for station access or station area plans, which typically address all modes of transportation to, from and within the station area. Rather, this study set out to identify the highest impact, near-term walk and bike improvements to station access<sup>22</sup>.

### Alameda County Plans

The following plans led by the Alameda County Transportation Commission (Alameda CTC) set countywide transportation goals, as well as goals specific to North Alameda County.

#### Alameda Countywide Transportation Plan, 2020

The Countywide Transportation Plan (CTP), adopted by Alameda CTC in 2020, established nearterm projects, programs, and strategic priorities for the area. It also detailed a 30-year transportation vision for Alameda CTC which is to serve county residents, businesses, and visitors by a premier transportation system that supports a vibrant and livable Alameda County through a connected and integrated multimodal transportation system promoting sustainability, access, transit operations, public health, and economic opportunities. Four goals provide support for this vision and deliver a framework for Alameda CTC decision making:

- 1. Accessible, affordable, and equitable improve and expand connected multimodal choices that are available for people of all abilities, affordable to all income levels and equitable
- Safe, healthy, and sustainable create safe multimodal facilities to walk, bike and access public transportation to promote healthy outcomes and support strategies that reduce reliance on single-occupant vehicles and minimize impacts of pollutants and greenhouse gas emissions
- 3. High quality and modern infrastructure deliver a transportation system that is of a high quality, well-maintained, resilient, and maximizes the benefits of new technologies for the public
- 4. Economic vitality support the growth of Alameda County's economy and vibrant local communities through a transportation system that is safe, reliable, efficient, cost-effective, high-capacity and integrated with sustainable transit-oriented development facilitating multimodal local, regional, and interregional travel.

<sup>&</sup>lt;sup>22</sup> BART Walk and Bicycle Network Gap Study (2020). Retrieved from <u>https://www.bart.gov/about/planning/station-access/network-gap-study</u>

Updated regularly, this plan is intended to emphasize projects, programs, and strategies the county intends to pursue over a 10-year horizon to achieve this vision and goals for Alameda County.<sup>23</sup>

#### Alameda Countywide Active Transportation Plan, 2020

The Alameda County Active Transportation Plan, completed in 2019, details Alameda CTC's priorities for improving walking and biking throughout the county's 15 diverse jurisdictions. The plan is meant to guide Alameda CTC in planning, funding, and delivering pedestrian and bicycle facilities and programs throughout Alameda County, and guides local agencies in delivering projects, particularly with respect to funding applications. The core vision of the plan is to inspire people of all ages and abilities to walk and bike for everyday transportation, recreation, and health, by providing a safe, comfortable, and interconnected network that links to transit and major activity centers, and by supporting programs and policies that encourage biking and walking. Achievement of this vision is guided by four goals which serve as priority criteria for capital investment. These criteria consist of the following:

- 1. Safety increase the safety of people bicycling and walking in Alameda County
- 2. Multimodal Connectivity create connected networks of streets and trails that enable people of all ages and abilities to walk and bike to meet their daily needs
- 3. Encouragement increase walking and biking in Alameda County
- 4. Impactful Investment invest public monies in projects and programs that maximize benefits for Alameda County's transportation system.

Based on this framework and contributions from public engagement, the plan identified essential active transportation needs and systemic gaps, including facilities lacking on high vehicle volume streets<sup>24</sup>.

**Table 2-1** shows the roadway segments that were identified as part of the Bicycle and Pedestrian High Injury Network (HIN) within the CACCMCP study area.

Jurisdiction	Bicycle HIN	Pedestrian HIN
Oakland	<ul> <li>International Boulevard between 1<sup>st</sup> Avenue and 105<sup>th</sup> Avenue</li> </ul>	<ul> <li>International Boulevard between 1<sup>st</sup> Avenue and 105<sup>th</sup> Avenue</li> </ul>
	<ul> <li>San Leandro Street between 37<sup>th</sup> Avenue to 47<sup>th</sup> Avenue</li> </ul>	<ul> <li>San Leandro Street, between 66<sup>th</sup> Avenue and Hegenberger Road</li> </ul>
San Leandro	<ul> <li>East 14<sup>th</sup> Street between 105<sup>th</sup> Avenue and Fairmont Drive</li> </ul>	<ul> <li>East 14<sup>th</sup> Street between Durant Avenue and Castro Street</li> </ul>
	<ul> <li>East 14<sup>th</sup> Street between Belleview</li> <li>Drive and Hesperian Boulevard</li> </ul>	<ul> <li>East 14<sup>th</sup> Street between Hesperian Boulevard and Plaza Drive</li> </ul>
		<ul> <li>San Leandro Boulevard between Best Avenue and Hudson Lane</li> </ul>

#### Table 2-1: Bicycle and Pedestrian HIN within the Study Area

<sup>&</sup>lt;sup>23</sup> Alameda CTC. 2020 Countywide Transportation Plan.

https://www.alamedactc.org/planning/countywidetransportationplan/, accessed on July 22, 2022 <sup>24</sup> Alameda CTC. 2019 Active Transportation Plan (CATP).

https://www.alamedactc.org/planning/countywide-bicycle-and-pedestrian-plans/, accessed on July 22, 2022

Jurisdiction	Bicycle HIN	Pedestrian HIN
	<ul> <li>San Leandro Street between Broadmoor Boulevard to Estudillo Avenue</li> </ul>	
Ashland	<ul> <li>East 14<sup>th</sup> Street between 150<sup>th</sup> Avenue and 164<sup>th</sup> Avenue</li> </ul>	<ul> <li>East 14<sup>th</sup> Street between 150<sup>th</sup> Avenue and Mattox Road</li> </ul>
Cherryland	None noted	East 14 <sup>th</sup> Street between Mattox Road and Grove Way
Hayward	Mission Boulevard between Grove Way     and Berry Avenue	<ul> <li>Mission Boulevard between Grove Way and Jackson Street</li> </ul>

Source: Alameda Countywide Active Transportation Plan, 2020.

#### Alameda County Community Based Transportation Plan, 2020

The Alameda County Community Based Transportation Plan (CBTP), completed in 2020, identified transportation needs within Alameda County's low-income and minority communities as required by MTC. The plan highlighted ways to improve access and mobility for low-income and minority communities across the county and provided recommendations that were incorporated into the 2020 update of the Countywide Transportation Plan (CTP). As noted in the Plan, key concerns for equity-priority residents include active transportation safety and transit service.<sup>25</sup> The Plan highlights impacts on communities from truck traffic and parking.

#### Alameda Countywide Multimodal Arterial Plan, 2016

The Alameda Countywide Multimodal Arterial Plan provides a roadmap for a future with superior mobility on a continuous and connected network for each mode of transportation that better supports adjacent land uses. This Plan was developed to improve the existing and future role and function of the countywide arterial system and to provide a framework for designing, prioritizing, and implementing improvements in the context of surrounding land use. This plan provides a basis for the integrated management of major arterial corridors and identifies a priority list of short- and long-term improvements and strategies.<sup>26</sup>

#### Alameda County Bicycle and Pedestrian Master Plan for Unincorporated Areas, 2019

The Alameda County Bicycle and Pedestrian Master Plan (BPMP) developed by the Alameda County Public Works Department promotes pedestrian safety and access to create more walkable communities in the unincorporated areas of Alameda County. The BPMP identifies project that will form the Bicycle and Pedestrian Network, recommends safety and education elements that complement active infrastructure, and develops project implementation

<sup>&</sup>lt;sup>25</sup> Alameda CTC. 2020 Community Based Transportation Plan (CBTP). Retrieved from <u>https://www.alamedactc.org/planning/countywidetransportationplan/community-based-transportationplans/</u>, accessed on July 22, 2022

<sup>&</sup>lt;sup>26</sup> Alameda CTC. 2016 Countywide Multimodal Arterial Plan. Retrieved from <u>https://www.alamedactc.org/planning/countywide-multi-arterial-plan/</u>, accessed on July 22, 2022

strategies. The plan also recommends actions for General plan update.<sup>27</sup> The BPMP goals consist of the following:

- Connectivity: Develop and maintain a connected and continuous bicycle and pedestrian network
- Access: Provide access for all users
- Safety: Improve safety for all modes of transportation
- Comfort: Consider the whole walking and biking experience through the provision of supporting facilities
- Awareness: Build community awareness of walking and biking as an alternative to driving plus an understanding of the safety responsibilities of all users
- Supportive Land Uses: Ensure that land uses support and promote walking and bicycling

#### Multimodal Monitoring, 2020

Alameda CTC monitors and documents multimodal performance on major roads throughout Alameda County every two years as a part of its Congestion Management Program (CMP), pursuant to CMP State Statute 65089. For the 2020 cycle, the COVID-19 pandemic and shelter-inplace orders substantially changed travel demand and the economy in Alameda County. International Boulevard from 42nd Avenue to Foothill Boulevard (SR 185) is under the jurisdiction of Caltrans. The document reported more than 50 percent increase in speed at certain segments of the highway and overall increase in speed throughout the corridor during 2020.<sup>28</sup>

#### East 14th Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project (2020)

The East 14th Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project evaluated current conditions and future needs to develop goals and objectives that shaped the long-term vision for the Project Corridor. This Project traverses jurisdictions within Central and South Alameda County, including unincorporated Alameda County and the cities of San Leandro, Hayward, Union City and Fremont. The long-term vision is a response to the future mobility needs of the Project Corridor's various communities and reflects the Project's goals of increasing use of alternate modes; addressing the range of mobility needs for those living and working in the Study Area; providing a safe and convenient environment for pedestrians, bicyclists, and transit users; and providing flexibility for future changes in transportation technology. To achieve this vision, specific near-, medium-, and long-term multimodal mobility improvements have been identified for implementation.<sup>29</sup>

<sup>&</sup>lt;sup>27</sup> Alameda County Public Works Agency. Alameda County Bicycle and Pedestrian Plan for Unincorporated Areas (2019). Retrieved from <u>https://www.acpwa.org/programs-</u> <u>services/transportation/bike.page</u>?

<sup>&</sup>lt;sup>28</sup> Alameda CTC. Multimodal Monitoring (2020). Retrieved from https://www.alamedactc.org/planning/congestion-management-program/

<sup>&</sup>lt;sup>29</sup> Alameda CTC. East 14<sup>th</sup> Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project (2020). Retrieved from <u>https://www.alamedactc.org/programs-projects/multimodal-arterial-roads/e14th-st-mission-blvd-and-fremont-blvd-multimodal-corridor/</u>

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#### Figure 2-3: East 14th Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project Study Area

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The East 14th Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project nearterm improvements have been combined with the East Bay Greenway (EBGW Multimodal Project given the synergies between the two projects. A detailed description of the EBGW project is provided below.

#### East Bay Greenway

The East Bay Greenway is a proposed regional trail which would link BART stations throughout the inner East Bay. Alameda CTC is the project sponsor for the East Bay Greenway: Lake Merritt BART to South Hayward BART Project. The Project proposes to construct a bicycle and pedestrian facility that will generally follow the BART alignment for a distance of 16 miles and traverse the cities of Oakland, San Leandro, and Hayward as well as the unincorporated communities of Ashland and Cherryland. The Project will connect seven BART stations as well as downtown areas, schools, and other major destinations.

Implementation of the East Bay Greenway from Lake Merritt to South Hayward is being pursued in two phases:

- The **East Bay Greenway Multimodal Project (Phase 1**) consists of a regional bikeway with pedestrian, transit, and placemaking improvements along city streets parallel to the BART alignment and connecting the BART stations between Lake Merritt and South Hayward. The project will include shared use paths, separated bikeways, pedestrian crossing enhancements, rapid bus stop improvements such as in-lane stops and transit signal priority, intersection safety improvements. As mentioned in the previous study description, the E14th Street/Mission Blvd segment, which comprises the near-term of the E14th Street/Mission and Fremont Multimodal Corridor Project has been merged with the EBGW Multimodal Project. Figure 2-4 shows the proposed alignment for Phase 1.
- The **East Bay Greenway Urban Trail Project (Phase 2)** is a longer-term project which would provide an off-street trail facility along the BART corridor with linear park enhancements but requires significant funding and right-of-way acquisition from the Union Pacific Railroad.

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#### Figure 2-4: East Bay Greenway Multimodal Project (Phase 1)



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### 2.3 Local Plans and Policies

### City of Oakland

#### Oakland Bike Plan, 2019

Oakland's Bicycle Plan is part of the Land Use and Transportation Element of the Oakland General Plan. It identifies projects and programs for the City of Oakland Bicycle Network. In the Plan, the Vision for the City is that "Oakland will be a bicycle-friendly city where bicycling provides affordable, safe and healthy mobility for all Oaklanders. New projects and programs will work to enhance existing communities and their mobility needs."<sup>30</sup>

#### Oakland Pedestrian Plan, 2017

In 2017, the City of Oakland completed an update of the Pedestrian Plan that reflects Oakland's changing conditions, needs and priorities. An update to the plan adopted in 2002, the 2017 Pedestrian Plan:

- Incorporated up-to-date information on existing conditions
- Refined the City's pedestrian vision and goals; and
- Outlined a five-year work plan of specific, high-priority and cost-effective improvements, programs, and policies<sup>31</sup>

#### East Oakland Mobility Action Plan, 2021

The East Oakland Mobility Action Plan (MAP) provides the policy foundation for achieving a transportation system that recognizes and balances the needs of all road users. East Oaklanders have faced historical inequity, environmental constraints, public health issues, and safety concerns. Below is the plan's mission statement:

"All East Oaklanders have access to, and choices within, a local and regional transportation system that is safe, efficient, and affordable, and connects them to the places they need to thrive. The City will partner with local residents, community groups, and small businesses to prevent displacement and gentrification and acknowledge historical injustices."

The MAP identifies an action plan that serves as a guide for making sound transportation decisions in East Oakland and to make its mission statement a reality.

The East Oakland MAP is intended to guide the City and other partner agencies in allocating resources for future mobility improvements in East Oakland and identifying ways in which transportation projects can be done differently, preventing undesired planning practices of the past.<sup>32</sup>

#### Lake Merritt Station Area Plan, 2014

The Lake Merritt Station Area Plan provides policies that guide development within a half-mile radius of the Lake Merritt BART station, located on the southeastern edge of the Chinatown/

<sup>&</sup>lt;sup>30</sup> City of Oakland. Oakland Bike Plan (2019). Retrieved from <u>https://www.oaklandca.gov/resources/bicycle-plan</u>

<sup>&</sup>lt;sup>31</sup> City of Oakland. Oakland Pedestrian Plan – Oakland Walks (2017) Retrieved from <u>https://www.oaklandca.gov/resources/pedestrian-plan-update</u>

<sup>&</sup>lt;sup>32</sup> City of Oakland. East Oakland Mobility Action Plan (2021). Retrieved from <u>https://www.oaklandca.gov/projects/eastoakmap</u>

Central Oakland district. The plan proposes projects to improve the pedestrian environment by narrowing or reducing traffic lanes, extending curbs, adding pedestrian countdown signals and pedestrian-scaled lighting, restoring streets to two-way and improving five of the six I-880 under crossings.<sup>33</sup>

### City of San Leandro

#### San Leandro 2035 General Plan, 2017

The San Leandro General Plan is a comprehensive blueprint that lays out the community's approach to growth and development activities through the year 2035. The most significant changes are envisioned around the city's two BART stations, in its industrial districts, and along some of its major arterial streets such as East 14th Street and Marina Boulevard. Development around the BART stations will redefine San Leandro's image while creating dynamic new neighborhoods, workplaces, and destinations.<sup>34</sup>

#### San Leandro Bicycle and Pedestrian Master Plan, 2018

The Bicycle and Pedestrian Master Plan is the official policy document guiding the development of policies and facilities to enhance bicycling and walking as practical, efficient, and safe transportation choices for San Leandro residents, workers, and visitors.<sup>35</sup>

#### San Leandro Climate Action Plan, 2021

The 2021 Climate Action Plan (CAP) is San Leandro's comprehensive strategy to reduce greenhouse gas (GHG) emissions and to adapt to changing climate conditions. This CAP demonstrates that community members and the City are taking a leadership role on sustainability and climate action. San Leandro's General Plan directs the preparation, ongoing implementation, and update of the CAP, providing the framework for San Leandro to reduce its community wide GHG emissions in a manner consistent with State reduction targets for 2020 and 2030 and the longer-term goal for 2050. This document outlines both the City's successes to date in promoting environmental responsibility and provides a blueprint for continued sustainability.<sup>36</sup>

#### Bay Fair Station Area TOD Specific Plan, 2018

The Specific Plan sets a vision for the Bay Fair area to become a walkable, transit-oriented community hub, with public gathering spaces and a mix of retail, neighborhood services, housing, and office spaces. To be consistent with this vision, the City of San Leandro is updating the Zoning Code to add new design and development regulations for the Bay Fair area, as recommended under the approved Plan.<sup>37</sup>

<sup>&</sup>lt;sup>33</sup> City of Oakland. Lake Merritt Station Area Plan (2014). Retrieved from <u>https://www.oaklandca.gov/topics/lake-merritt-station-area-plan</u>

<sup>&</sup>lt;sup>34</sup> City of San Leandro 2035 General Plan (2017). Retrieved from <u>https://www.sanleandro.org/332/General-Plan</u>

<sup>&</sup>lt;sup>35</sup> City of San Leandro Bike and Pedestrian Master Plan (2018). Retrieved from <u>https://www.sanleandro.org/255/Bicycles-Pedestrians</u>

<sup>&</sup>lt;sup>36</sup> City of San Leandro. Climate Action Plan (2021). Retrieved from <u>https://www.sanleandro.org/984/Climate-Action-Plan</u>

<sup>&</sup>lt;sup>37</sup> City of San Leandro. Bay Fair Station Area TOD Specific Plan (2018). Retrieved from <u>https://www.sanleandro.org/348/Bay-Fair-Transit-Oriented-Development-TO</u>

### Ashland and Cherryland CDPs

#### Ashland/Cherryland Business District Specific Plan, 2015

The Ashland/Cherryland Business District Specific Plan provides direction for development and urban design and seeks to support community and economic development by capitalizing on the area's unique assets and character.<sup>38</sup>

#### Ashland and Cherryland Parking Demand and Management Strategy Study, 2020

The Ashland and Cherryland Parking Demand and Management Study is a comprehensive parking study to further the planning and transportation goals and policies outlined in the Ashland Cherryland Business District Specific Plan.<sup>39</sup>

### City of Hayward

#### Hayward Bike and Pedestrian Master Plan, 2020

The City of Hayward's Bicycle and Pedestrian Master Plan establishes the City's vision and comprehensive approach to improving walking and biking in Hayward. The City of Hayward has promoted biking and walking throughout its history. The first bicycle plan was adopted in 1979, and the prior update was completed in 2007. Since then, the City has created various citywide and neighborhood-specific plans to promote these modes of transportation. The Plan builds on this work and is consistent with the City's General Plan and Complete Street policies, which emphasize a comprehensive, integrated, and connected network of transportation facilities and services for all modes of travel.<sup>40</sup>

#### Downtown Hayward Specific Plan, 2019

The Downtown Specific Plan provides a strategy to achieve the community's vision of a resilient, safe, attractive, and vibrant historic Downtown by clearly outlining an implementation plan, delineating an inclusive, multi-modal circulation system, integrating public open spaces, and establishing new regulations that clearly establish Downtown Hayward as the heart of the City and a destination for visitors and residents.<sup>41</sup>

#### Hayward Climate Action Plan, 2009

The Hayward Climate Action Plan (CAP) provides a roadmap for achieving a measurable reduction in GHG emissions. Adopting the CAP is a discernible step towards emission reductions. The CAP recommends GHG emission targets that will align Hayward's reduction targets with those of the State of California and presents several strategies that will make it possible for the

<sup>&</sup>lt;sup>38</sup> Alameda County Community Development Agency. Ashland and Cherryland Business District Specific Plan (2015). Retrieved from https://www.acgov.org/cda/planning/generalplans/documents/LWC ACBD Adopted SP-

<sup>&</sup>lt;u>https://www.acgov.org/cad/planning/generalplans/aocuments/Lwc\_ACBD\_Adopted\_SP-</u> <u>Code\_Dec2015.pdf</u>

<sup>&</sup>lt;sup>39</sup> Alameda County Community Development Agency. Ashland and Cherryland Parking Demand and Management Strategy Study (2020). Retrieved from <u>http://www.acgov.org/board/bos\_calendar/documents/CDAMeetings\_10\_05\_20/2AshlandCherrylandBussDistParkingStudy.pdf</u>

<sup>&</sup>lt;sup>40</sup> City of Hayward. Bike and Pedestrian Master Plan (2020). Retrieved from <u>https://www.hayward-</u> <u>ca.gov/content/bike-and-pedestrian-master-plan-update</u>

<sup>&</sup>lt;sup>41</sup> City of Hayward. Downtown Specific Plan (2019). Retrieved from <u>https://www.hayward-ca.gov/downtown-specific-plan</u>

City to meet these targets. The CAP also suggests best practices for implementing the Plan and makes recommendations for measuring progress.<sup>42</sup>

<sup>&</sup>lt;sup>42</sup> City of Hayward. Climate Action Plan (2009). Retrieved from <u>https://www.hayward-ca.gov/services/city-services/climate-action</u>

### 2.4 Evaluation Framework

The evaluation framework for the CACCMCP, shown in **Table 2-2**, represents a synthesis of the core goals applicable to the study area from the sources described above. They were developed through a collaborative process with Alameda CTC and the CACCMCP Technical Advisory Committee. The projects in the CACCMCP are evaluated both quantitatively and qualitatively in Chapter 7.

Table 2-2: Goals, Objectives and Performance Measures	
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Goals	Objectives	Performance Measures
1. Provide a safe and convenient transportation system for all users	<ul> <li>1.1 Reduce severe and fatal injury collisions</li> <li>1.2 Reduce non-motorized collisions</li> <li>1.3 Provide high-quality active transportation options</li> </ul>	<ul> <li>Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)</li> <li>Rate of Serious Injuries per 100 million VMT</li> <li>Number of Non-motorized Fatalities and Non-motorized Serious Injuries</li> <li>Miles of High Injury Network</li> </ul>
2. Address mobility needs by providing accessible, affordable, and equitable transportation networks	<ul> <li>2.1 Increase the number of multimodal options in the corridor and reduce gaps</li> <li>2.2 Improve connections in Equity Priority Communities (EPCs)</li> <li>2.3 Provide affordable alternatives to driving alone</li> </ul>	<ul> <li>Miles of Active Transportation Network Improvements</li> <li>First-/Last-Mile Connections to Major Transit Stations</li> <li>Transit Frequency</li> <li>Miles of Multimodal Corridor Improvements in EPCs</li> <li>Transit Ridership</li> </ul>
3. Enhance travel reliability and improve corridor efficiency	<ul><li>3.1 Reduce recurring delays</li><li>3.2 Improve transit reliability</li><li>3.3 Increase travel time reliability</li></ul>	<ul> <li>Vehicle Hours of Delay</li> <li>Peak Period Vehicle Volumes</li> <li>Transit on-time performance</li> <li>Travel time reliability (e.g., buffer index or planning time index)</li> </ul>
4. Support efficient land use planning that encourages active lifestyle	<ul><li>4.1 Promote multimodal travel that supports efficient land use</li><li>4.2 Increase of Mixed-Use Transit-Oriented Development</li></ul>	<ul> <li>Population in Priority Development Areas</li> </ul>
5. Provide a transportation system that improves health and environment	<ul><li>5.1 Reduce Vehicle Miles Traveled</li><li>(VMT)</li><li>5.2 Reduce GHG Emissions</li><li>5.3 Reduce Criteria Air Pollutants</li></ul>	<ul> <li>Vehicle Miles Traveled per capita</li> <li>Miles of First-/Last-Mile Connections to Major Transit Stops</li> <li>Air Quality</li> </ul>
6. Consider multimodal network as a tool for community revitalization and economic growth	6.1 Support placemaking and existing communities	<ul> <li>Percent of Resident Trips Within Neighborhood (TAZ)</li> </ul>

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# 3. Study Area Overview

This chapter presents the CACCMP study area overview, which includes roadway and transit facilities, land use, and environmental considerations to provide context for the operational conditions and development of proposed solutions discussed in later chapters. **Figure 3-1** through **Figure 3-4** show the CACCMCP study area.

## 3.1 Description

The study area is located in Central Alameda County and includes the southern portion of the City of Oakland, the Cities of San Leandro and Hayward, and the unincorporated communities of Ashland and Cherryland. It spans from Lake Merritt Bay Area Rapid Transit (BART) station to South Hayward BART station and traverses seven BART stations in total as well as downtown areas, schools, and other major destinations. As shown in Figure 3-1 through Figure 3-4, the entire corridor segment is about 16 miles long and covers a total area of about 22.5 square miles. The study area includes freeways and arterials, a robust transit network of bus and regional rapid transit systems, trails, and other alternative modes of transportation. The key facility types are summarized in the following sections.

### Primary Corridors

Primary corridors are the north-south links between the north and south termini of the corridor (Lake Merritt BART station and South Hayward BART station). These corridors include International Boulevard, East 14th Street, Mission Boulevard, 12<sup>th</sup> Street, San Leandro Street, San Leandro Boulevard and Bay Area Rapid Transit (BART).

International Boulevard/East 14th Street/Mission Boulevard runs nearly parallel to Interstate 880 and connects Oakland, East 14th Street in San Leandro, and Mission Boulevard in Hayward. International

# Study Area at a Glance

**16 Miles** from Lake Merritt BART to South Hayward BART

**22.5 Square Miles** including downtown areas, schools, and other major destinations

**5 Jurisdictions:** Oakland, San Leandro, unincorporated communities of Ashland and Cherryland, and Hayward

### 7 BART stations

305,000 Residents



Boulevard in Oakland spans from 2<sup>nd</sup> Avenue to Durant Avenue in San Leandro. The East 14<sup>th</sup> Street segment begins at Durant Avenue in San Leandro to 172<sup>nd</sup> Avenue in Cherryland. The Mission Boulevard segment runs from 172<sup>nd</sup> Avenue to Tennyson Road in Hayward. International Boulevard/East 14<sup>th</sup> Street/Mission Boulevard is one of a limited number of north-south travel options in the central part of Alameda County serving local, regional and interregional trips.

Significant land development and growth along this corridor that has been planned is currently occurring and anticipated to continue in the future.<sup>43</sup>

The segment of International Boulevard and East 14<sup>th</sup> Street between 42<sup>nd</sup> Avenue in Oakland and Bayfair Drive in San Leandro, referred to as SR 185, is owned and operated by Caltrans.<sup>44</sup> East 14<sup>th</sup> Street and Mission Boulevard from Bayfair Drive and Rose Street are under the jurisdiction of Alameda County and span the communities of Ashland and Cherryland. Mission Boulevard in Hayward, from Rose Street to south of Industrial Parkway, has been relinquished by Caltrans to the City of Hayward.<sup>45</sup>

**San Leandro Street/San Leandro Boulevard** is an arterial roadway that connects the Fruitvale, Coliseum, and San Leandro BART stations. This is a four-lane roadway with a raised median and posted speed limit of 35 mph. This segment further connects the San Leandro BART station and

terminates at East 14<sup>th</sup> Street. Along the BART line, the roadway is surrounded by industrial sites, while the adjoining land-uses near East 14<sup>th</sup> Street are commercial and residential. The segment of San Leandro Boulevard, between Park Street and East 14<sup>th</sup> Street is a two-lane roadway with a center-turn lane, dedicated bike lanes, and on-street parking.

The segment between 75<sup>th</sup> Avenue and 85<sup>th</sup> Avenue features the recently completed East Bay Greenway Urban Trail (Phase II), an off-street trail facility along the BART corridor with linear park enhancements.



### Major Connections (East-West)

Major connections (East-West) refer to the corridors that facilitate north-south movement further by providing east-west connections throughout the study area. These connections were identified within one-mile from the north-south running primary corridors and the projects as identified are located within this buffer area. Major connections accommodate shorter trips and provide access to BART stations and to multimodal facilities such as transportation centers and park-and-ride lots within the study area. These facilities provide important local circulation, including access to job centers and commercial districts, as well as to residential neighborhoods.

A roadway within the study area was declared a major connection if it met each of the three criteria listed below, with a couple of exceptions:<sup>46</sup>

<sup>&</sup>lt;sup>43</sup> East 14th Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project: <u>https://www.alamedactc.org/programs-projects/multimodal-arterial-roads/e14th-st-mission-blvd-and-fremont-blvd-multimodal-corridor/</u>

<sup>&</sup>lt;sup>44</sup> Caltrans D4 Maps on Demand, Operating Right of Way, accessed July 28, 2022, <u>https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=04efb9a9f14c4da2aabd9ce36b7d</u> <u>da48/</u>.

<sup>&</sup>lt;sup>45</sup> Caltrans District 4, SR 185 Transportation Concept Report (2013).

<sup>&</sup>lt;sup>46</sup> Based on recommendations from the TAC members, we added Oak and Madison Streets, which did not meet the Functional Classification criteria, and Davis Street, which was not studied as a part of the Alameda County Active Transportation Plan.

- Designated as an arterial roadway under the California Road System (CRS) as Functional Classification
- Located within a half mile of a BART station
- Included as part of the Alameda Countywide Bicycle and Pedestrian High Injury Network

Additional major connections were identified by the Central Alameda County Comprehensive Multimodal Corridor Plan (CACCMCP) Technical Advisory Committee (TAC)<sup>47</sup>, which consists of representatives from all partner agencies. The following roadways were identified as major connections in the study area.

**Oak Street/Madison Street** are local streets traversing from Lakeside Drive to 2<sup>nd</sup> Street in Oakland. Within the study area, these streets are two-lane roadways with a buffered bike lane and on-street parking on both sides of the street. Oak Street/Madison Street are one-way streets with a posted speed limit of 25 mph. The Lake Merritt BART station is located at the intersection of 8<sup>th</sup> Street and Oak Street.

**Fruitvale Avenue** is an arterial roadway traversing from the boundary of the city of Alameda to Foothill Boulevard in Oakland. This is a two-lane roadway with on-street parking, a bike lane, and a posted speed limit of 25 mph. This street provides direct access to the Fruitvale BART station, as well as a parking lot facilitating Park and Ride for daily commuters.

**High Street** is a local roadway traversing from Marina Drive in Alameda to San Carlos Avenue in Oakland, facilitating east-west connectivity between the cities of Alameda and Oakland. This is a four-lane roadway



with a posted speed limit of 25 mph surrounded by industrial and commercial land use. This roadway also provides direct transit connectivity to the Fruitvale BART station and provides access to I-880.

**73**<sup>rd</sup> **Avenue/Hegenberger Road** is an arterial roadway traversing from Coliseum Way to MacArthur Street in Oakland, facilitating east-west connectivity. This is a six-to-eight lane roadway with a posted speed limit of 40 mph, and it provides direct connectivity to the Oakland International Airport. The surrounding land uses include commercial, industrial, and residential neighborhoods.

**Davis Street** (State Route 112) runs between State Route 61 (Doolittle Drive) and State Route 185 (East 14th Street) in San Leandro. This is a four-lane roadway with a raised median, a bike lane, and posted speed limit of 30 mph. This street provides direct transit connectivity to the San Leandro BART station, which has a park and ride facility for daily commuters.

**Washington Avenue** is an arterial traversing north-south from West Juana Avenue to Bradrick Drive in San Leandro. This is a four-lane roadway with a posted speed limit of 35 mph, a raised

<sup>&</sup>lt;sup>47</sup> Alameda CTC identified Technical Advisory Committee (TAC) members for the development of this CMCP. Members of the TAC consisted of E. 14th St./Mission Blvd, San Leandro, Alameda County, Hayward, AC Transit, Caltrans, and BART, with one additional TAC member representing the City of Oakland.

median, and a dedicated bike route. This segment connects Downtown San Leandro with San Leandro Boulevard, which is one of the primary corridors providing north-south connectivity for the study area.

**Hesperian Boulevard** is a north-south arterial roadway traversing from East 14<sup>th</sup> Street to Spring Lake Drive in San Leandro. This is a six-lane roadway with a raised median, dedicated bike lanes, and a posted speed limit of 35 mph from College Street to Springlake Drive and 40 mph from Springlake Drive to East 14<sup>th</sup> Street. This segment provides direct transit connectivity to the Bay Fair BART station with a parking lot facilitating Park and Ride for daily commuters. This segment is surrounded by commercial and residential land uses.

A Street is a local street traversing east-west from Walnut Street to 3<sup>rd</sup> Street in Hayward. This is a four-lane roadway with a raised median, dedicated bike lanes, and a posted speed limit of 30 mph. A Street provides direct connectivity to the Hayward BART station via Montgomery Avenue. The surrounding land uses are a mix of residential and commercial uses.

Jackson Street is an arterial roadway traversing from Santa Clara Street to Mission Boulevard in Hayward. This is a six-lane roadway with a raised median and a posted speed limit of 40 mph. This segment is surrounded by commercial and residential land uses.

**Tennyson Road** is an arterial roadway from Huntwood Avenue to Mission Boulevard in Hayward, while the remaining roadway further to the east is a local street. This segment is a four-lane roadway with a raised



median and bike lanes. It connects Mission Boulevard to Industrial Avenue, providing access to I-880 at a full-access interchange. This segment provides direct transit connectivity to the South Hayward BART station via Dixon Street.

### Figure 3-1: CACCMCP Study Area (1 of 4)



### Figure 3-2: CACCMCP Study Area (2 of 4)



Figure 3-3: CACCMCP Study Area (3 of 4)



### Figure 3-4: CACCMCP Study Area (4 of 4)



### 3.2 Demographics

CMCP transportation planning priorities and projects must align with the needs of the resident population and users of the area's transportation services. The following discussion highlights Alameda County and study area demographic factors relevant to CMCP development.

### Alameda County

Alameda County has the second-largest population among Bay Area counties, estimated at 1.67 million people in 2019. As shown in **Figure 3-5**, the four largest ethnic groups in Alameda County are Asian (30.9 percent), White (30.4 percent), Hispanic or Latino (22.3 percent), and Black or African American (10.3 percent), with individuals of other or mixed-race representing six percent of the population. A large portion of the resident population is foreign-born (32 percent), and nearly half of them speak languages other than English at home (45.7 percent). In 2019, the median income in Alameda County was approximately \$108,322, and slightly more than half of the households own their own home (53 percent) with an average owner-occupied household size of 2.95 persons. **Table 3-1** summarizes the demographics for Alameda County.

### Study Area

The study area is 22.5 square miles and has an estimated population of 348,227 (2019), which is 21 percent of Alameda County's population. As shown in **Figure 3-5**, the study area's five largest ethnic groups by population are Hispanic or Latino (42 percent), other or mixed-race (31percent), White (30 percent), Black or African American (18 percent), and Asian (21 percent). English is the only language spoken at home in a greater portion of households (57 percent) relative to the overall county (54 percent). In 2019, the median income in the study area was lower than that of the county at approximately \$64,796, however, more households owned their own home (63 percent) with an average owner-occupied household size of 3.19 persons. **Table 3-1** summarizes the demographics for the study area.



#### Figure 3-5: Study Area and Alameda County Population by Race

Notes: Other: Includes American Indian and Alaska Native alone, Native Hawaiian and Other Pacific Islander alone, some other race alone, and two or more races.

Sources: Data compiled from the American Community Survey (2019), accessed July 4, 2022; Kittelson & Associates, 2022.

Demographic	Study Area	Alameda County
Total Population	305,693	1,671,329
Speak Only English	57%	54%
Population Density (people/square mile) <sup>1</sup>	13,586	2,036
Number of Households	101,884	585,632
Average Household Size (Owner)	3.19	2.95
Average Household Size (Renter)	3.00	2.63
Renter-Occupied Housing Units	37%	47%
Owner-Occupied Housing Units	63%	53%
Median Household Income <sup>2</sup>	\$64,796	\$108,322

#### Table 3-1: Study Area and Alameda County Demographics

Notes:

1. Population density: Calculated from Total Population based on geographies' respective square mileage. Alameda County = 821 square miles. Study area = 22.5 square miles.

2. Median Household Income: Calculated for the study area as the weighted average (arithmetic mean) of the median household income for area census tracts.

Sources: Data compiled from the American Community Survey (2019), accessed August 5, 2022; Kittelson & Associates, 2022.

### 3.3 Land Use

Land use strongly influences the transportation system as well as travel behavior. Increased density tends to encourage people to utilize other modes of transportation such as walking, bicycling and using public transit.

The availability of quality alternative travel options ultimately leads to a reduction in vehicle miles traveled (VMT).<sup>48</sup> The land use observed within the study corridor is shown in **Figure 3-6** through **Figure 3-9** and summarized in relation to Caltrans's Smart Mobility Framework (SMF) place types.<sup>49</sup> SMF is a planning framework that helps guide and assess how well plans and programs meet the definition of smart mobility and is also used as a guide to inform transportation decisions. Together, they provide an understanding of the existing and future transportation planning priorities for the study area and guide the development of recommendations.

<sup>&</sup>lt;sup>48</sup> California Air Pollution Control Officers Association. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.

https://www.airquality.org/ClimateChange/Documents/Final%20Handbook\_AB434.pdf

<sup>&</sup>lt;sup>49</sup> Caltrans, *Smart Mobility Framework* (SMF), https://dot.ca.gov/programs/transportation-planning/divisionof-transportation-planning/active-transportation-and-complete-streets/smart-mobility-framework.

### Place Types

Caltrans's SMF land-use place types are determined by three metrics: population density, transit mode share, and road density. Population density and transit mode share are defined as persons per square mile and percentage of transportation trips in the study area made by transit, respectively. Road density is calculated as the ratio of the total length of all roads to the land area within the specified area. The SMF guide identifies five place types: central cities, urban communities, suburban communities, rural areas, and protected lands and special use areas.

The Caltrans SMF Guide 2020 identifies Oakland, San Leandro, and Hayward as urban communities, whereas Ashland and Cherryland are identified as suburban communities.<sup>50</sup> Therefore, it is assumed that most of the corridor study area is representative of these two place types. **Table 3-2** lists and describes the place type descriptions found within the study area.

Place Type	Place Type Description	Jurisdictions within the Study Area <sup>51</sup>
Urban Communities	Moderately dense places, mostly residential but with mixed-use centers. Housing is varied in density and type. Transit is available to connect neighborhoods to multiple destinations. Fine-grained network of streets with good connectivity for pedestrians and bicyclists.	Oakland, San Leandro, Hayward
Suburban Communities	Primarily lower density residential with a high proportion of detached housing. Some interspersed retail and services, but little mixing of housing with commercial uses. Street networks often have poor connectivity. Low levels of transit service, large amounts of surface parking, and inconsistent pedestrian networks.	Unincorporated communities of Ashland and Cherryland

#### Table 3-2: Place Type Examples within the Study Area

Sources: Caltrans, Smart Mobility Framework; Kittelson & Associates, 2022.

### Transportation Investment Recommendations

Place types help determine transportation needs. The SMF identifies transportation strategies for each place type so that a greater location efficiency can be achieved, and more smart mobility benefits can be realized in the future. **Table 3-3** lists place types in the corridor study area and identifies examples of planning considerations and transportation strategies for each place type.

<sup>&</sup>lt;sup>50</sup> Caltrans, Smart Mobility Framework Guide (2020), 107.

<sup>&</sup>lt;sup>51</sup> Caltrans, Smart Mobility Calculator, accessed June 28, 2022, <u>https://smartmobilitycalculator.netlify.app/#</u>.

Place Type	Transportation Strategies <sup>52</sup>
Urban Communities	• Designate urban community locations, distinguishing those that have achieved the full range of characteristics described for centers, corridors, or neighborhoods. In these places, maintenance and enhancement of appropriate community design characteristics are the long-term goals.
	• Designate locations evolving to urban communities from suburban communities or rural places, identifying land use, urban design, and transportation characteristics to be introduced or developed to create centers, corridors, and neighborhoods with essential community design elements such as multimodal network connectivity, strong presence of local-serving retail and service uses, and well-integrated public facilities.
	<ul> <li>Designate locations for new development with the location- efficient features of urban communities.</li> </ul>
	<ul> <li>Identify locations where multimodal connectivity to urban centers can be improved.</li> </ul>
	<ul> <li>Adopt and apply performance and development standards that encourage moderate density, mixed-use infill development, such as multimodal LOS and reduced parking requirements.</li> </ul>
	<ul> <li>Use a flexible approach to design and operations of state highways operating as Main Streets, as described in Caltrans' Main Streets, California guide.</li> </ul>
	<ul> <li>Consider cordon pricing to manage vehicle travel demand and reduce emissions.</li> </ul>
	<ul> <li>Address social equity and environmental justice concerns in part through equitable and comprehensive coverage and quality of transportation services.</li> </ul>
	Improvements to network connectivity to reduce route/trip lengths     and opportunities to encourage non-SOV trips
Suburban Communities	<ul> <li>Complete street facility treatments near schools and areas with an opportunity to transition to Urban Community place types</li> </ul>
	<ul> <li>Transit, on-demand transit, or rideshare implementation attached to employment centers where appropriate</li> </ul>
	<ul> <li>Access management and speed management on arterial streets</li> </ul>

### Table 3-3: Examples of Transportation Strategies for Place Types within the Study Area

Sources: Caltrans, Smart Mobility Framework; Kittelson & Associates, 2022.

Residential land uses (54 percent of the land area) are the most common use found in the study area. Commercial uses (16 percent of the study area) are the next most common type. The remainder of the study area consists of parks/open space, and institutional and industrial land uses. Part of the California State University, East Bay, Hayward campus lies within the study area, along with several schools. **Table 3-4** lists the land use distribution for the study area.

<sup>&</sup>lt;sup>52</sup> Caltrans, Smart Mobility Framework Guide (2020), 111, 113.
Туре	Area (sq. mi.)	Area (percentage)
Residential	10.5	47%
Commercial	3.2	14%
Transportation and Utilities	3.0	13%
Parks/Open Space	2.1	9%
Industrial	1.8	8%
Education/Public/Semi-Public	0.9	4%
Mixed Use	0.9	4%
Other/Unknown	0.1	0%
Total	22.5	100%

### Table 3-4: Study Area Existing Land Use

Sources: Kittelson and Associates, 2022; MTC, 2009. Note: Total may not sum to 100% due to rounding FINAL

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### Figure 3-6: Study Area Land Use (Page 1 of 4)



#### Figure 3-7: Study Area Land Use (Page 2 of 4)







### Figure 3-9: Study Area Land Use (Page 4 of 4)



# 3.4 Commute Patterns and Trip Generators

Central Alameda County residents have numerous options for traveling to and from work, ranging from walking or riding bicycles to using transit or carpooling as well as single occupant vehicle trips. Commute mode choice impacts road congestion levels, air pollution levels, and what types of programs and initiatives could help relieve the strain on the transportation infrastructure in the study region and Central Alameda County as a whole.

### Commute Choice by Mode

As shown in **Table 3-5**, automobile travel is the dominant mode of commuting in the study area, accounting for 74 percent of commute trips. This is higher than the rates for both Alameda County and the Bay Area. Approximately 16 percent of study area residents take transit to work, which is lower than the rate for Alameda County as a whole (18 percent). For walking and biking, study area residents also tend to use these modes at slightly lower rates compared to residents in Alameda County and the Bay Area region.<sup>53</sup> Immediately after shelter-in place orders were issued in March 2020, total auto travel fell 30 percent while traffic delay fell 94 percent compared to just a month earlier. By the fall of 2020, traffic delay was still down about 70 percent, however total travel was down just 8 percent from before the pandemic.<sup>54</sup>

Commute Mode	Study Area <sup>2</sup>	Alameda County <sup>2</sup>	Bay Area <sup>2</sup>
Auto <sup>4</sup>	74%	70%	74%
Transit	16%	18%	12%
Walk	3%	3%	4%
Bike	1%	2%	2%
Other <sup>5</sup>	2%	2%	2%
Work from Home	4%	7%	6%

#### Table 3-5: Commute Choice by Mode

Notes:

1. All statistics presented here are calculated by place of residence.

2. Data compiled from American Community Survey 5-Year Estimates (2019), accessed August 5, 2022.

3. Auto: Includes carpool and drive-alone vehicle trips.

4. Other: Includes motorcycle, taxicab, and other non-auto, non-transit modes.

Sources: ACS 5-Year, 2019; Kittelson & Associates, 2022.

### Trip Generators

The CACCMCP study area serves local and regional travel by linking commuters to major employment centers of economic significance. **Table 3-6** provides a list of major trip generators

<sup>&</sup>lt;sup>53</sup> B08141: MEANS OF TRANSPORTATION TO... - Census Bureau Table

<sup>&</sup>lt;sup>54</sup> Alameda CTC. 2020 Multimodal Monitoring Report, accessed September 28, 2022, <u>https://www.alamedactc.org/wp-content/uploads/2021/05/2020 Multimodal Monitoring Report.pdf</u>

within the CACCMCP study area which includes major employers,<sup>55</sup> commercial centers, and educational and medical facilities. Most of the trip generators are located along East 14<sup>th</sup> Street/International Boulevard/Mission Boulevard and near the Lake Merritt BART station, Downtown San Leandro, and Hayward. Apart from the trip generators listed in the following table, there are many industrial sites and small commercial shopping centers within the study area that generate a considerable number of trips.

<sup>&</sup>lt;sup>55</sup> Employment Development Department, List of Major Employers within the County of Alameda, accessed July 28, 2022, https://www.labormarketinfo.edd.ca.gov/majorer/countymajorer.asp?CountyCode=000001.

City	Oakland	San Leandro	Ashland	Cherryland	Hayward
Major Employers	<ul> <li>Alameda County Law Enforcement</li> <li>Alameda County Sheriff's Office</li> </ul>	<ul> <li>San Leandro City Hall</li> <li>Alameda County Superior Court</li> </ul>			Hayward City Hall
Commercial Centers	• Eastmont Town Center	<ul> <li>Bayfair Center</li> <li>Marina Square Center</li> <li>Downtown San Leandro</li> <li>Pelton Shopping Center</li> <li>Greenhouse Marketplace</li> <li>Windsor Square</li> </ul>	• Gateway Shopping Center	Creekside Center	<ul> <li>Downtown Hayward</li> <li>Plaza Center Shops and Office Tower</li> </ul>
Colleges and Universities	<ul> <li>Laney College</li> <li>Oakland Unified School District</li> </ul>	<ul> <li>Carrington College</li> <li>San Leandro Unified School District</li> </ul>	<ul> <li>San Lorenzo High school</li> <li>Hesperian Elementary School</li> <li>Edendale Middle School</li> <li>Hillside Elementary School</li> </ul>	<ul> <li>Cherryland Elementary School</li> <li>KEY Academy Charter School</li> </ul>	<ul> <li>California State University-East Bay</li> <li>Hayward's Silver Oak High School</li> <li>Bret Harte Middle School Hayward Campus</li> <li>Hayward Public Library</li> <li>Tennyson High School</li> <li>Hayward Unified School District</li> </ul>
Hospitals and Clinics	<ul> <li>Highland Hospital</li> <li>Gladman Mental Health Rehabilitation Center</li> </ul>	<ul> <li>San Leandro Hospital</li> <li>Fairmont Hospital</li> </ul>	Kaiser Permanente Post-Acute Care Center (KPPACC)		

Source: Kittelson & Associates, 2022.

# 3.5 Priority Development Areas and Equity Priority Communities

Plan Bay Area 2050, adopted by the Metropolitan Transportation Commission and Association of Bay Area Governments in October 2021, is a long-range plan for the future of the nine-county San Francisco Bay Area and focuses on four key issues: economy, environment, housing, and transportation.<sup>56</sup> Per California Transportation Commission CMCP requirements, this CACCMCP must be consistent with the goals and objectives of Plan Bay Area 2050, including the forecasted development pattern. Therefore, CMCP projects must align with Plan Bay Area goals for reducing per-capita greenhouse gas emissions by promoting the development of compact, mixed-use residential and commercial neighborhoods near transit.

### Priority Development Areas

Plan Bay Area 2050 updated the designation of Priority Development Areas (PDAs) in line with the revised regional growth framework.<sup>57</sup> PDAs are areas within existing communities that local city or county governments have identified and approved for future housing and job growth due to the existence of public transit infrastructure. Development in such areas makes the most of public investments and limits development impacts on communities and the environment. PDAs are shown in **Figure 3-10** through **Figure 3-13**. **Table 3-7** shows the amount of land area in transit rich PDAs by jurisdiction within the CACCMCP study area.

Jurisdiction	Transit Rich PDA within Study Area Land Area (sq. mi.)	Priority Production Areas within the Study Area Land Area (sq. mi.)
Oakland	8.45	0
San Leandro	1.30	0.52
Ashland	0.94	0
Cherryland	0.43	0
Hayward	0.86	0

#### Table 3-7: Priority Development Areas and Priority Production Areas

Source: MTC, Priority Development Areas, 2022.

### **Priority Production Areas**

Plan Bay Area 2050 debuted Priority Production Areas (PPAs) as a new growth geography.<sup>58</sup> PPAs, also shown in **Figure 3-10** through **Figure 3-13**, are clusters of industrial businesses prioritized for economic development investments and protection from competing land uses. These districts are already well-served by the region's goods movement network. Typical businesses in

<sup>&</sup>lt;sup>56</sup> Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), Plan Bay Area 2050, accessed July 4, 2022, p. vi, <u>https://www.planbayarea.org/finalplan2050</u>.

<sup>&</sup>lt;sup>57</sup> MTC, Priority Development Areas, accessed July 11, 2022, <u>https://mtc.ca.gov/planning/land-use/priority-development-areas-pdas</u>.

<sup>&</sup>lt;sup>58</sup> MTC, Priority Production Areas, accessed July 4, 2022, <u>https://mtc.ca.gov/planning/land-use/priority-production-areas-ppas</u>.

PPAs include manufacturing, distribution, warehousing, and supply chains. PPAs are nominated by local governments and adopted by Association of Bay Area Governments (ABAG). PPAs must be zoned for industrial use or have predominantly industrial uses, located outside of Priority Development Areas and other areas within walking distance of a major rail commute hub, and located in jurisdictions with a certified housing element. The study area is in proximity to the Airport PPA which encompasses the Oakland International Airport and industrial areas west and east of I-880.<sup>59</sup> **Table 3-7** shows the amount of land area in PPA by jurisdiction within the CACCMCP study area. The only PPA area is in San Leandro southwest of BART line and Marina Boulevard.

### Priority Conservation Areas

Plan Bay Area 2050 features another growth geography of consequence to the study area -Priority Conservation Areas (PCAs). Also shown in **Figure 3-10** through **Figure 3-13** these are regionally significant open spaces which have broad agreement for long-term protection. These are lands that are being pressured by urban development, among other factors, and are supported through local government consensus. PCAs are categorized by four designations related to the Bay Area's natural systems, rural economy and the health of all residents: natural landscapes, agricultural lands, urban greening, and regional recreation.<sup>60</sup>

The study area includes multiple PCAs located within the CACCMCP study area<sup>61</sup> <sup>62</sup>:

- 1. Oakland Priority Estuaries, Oakland
- 2. East Bay Greenway, Oakland
- 3. Oakland Urban Greening, Oakland
- 4. Oakland Priority Creeks, Oakland

<sup>&</sup>lt;sup>59</sup> MTC, Priority Production Areas (Plan Bay Area 2050), accessed June 30, 2022, <u>https://opendata.mtc.ca.gov/datasets/priority-production-areas-</u> current/explore?location=37.795635percent2C-122.167933percent2C9.81.

<sup>&</sup>lt;sup>60</sup> MTC, Priority Conservation Areas, accessed July 4, 2022, <u>https://abag.ca.gov/our-work/land-use/pca-priority-conservation-areas</u>.

<sup>&</sup>lt;sup>61</sup> ABAG, Plan Bay Area Priority Conservation Areas in Alameda County, accessed January 12, 2022, <u>https://abag.ca.gov/sites/default/files/alameda\_pcas\_11x17.pdf</u>.

<sup>&</sup>lt;sup>62</sup> MTC, Priority Conservation Areas Points (Plan Bay Area 2050), accessed June 30, 2022, <u>https://opendata.mtc.ca.gov/datasets/priority-conservation-areas-points-plan-bay-area-</u> <u>2050/explore?location=37.812615percent2C-122.272123percent2C12.13</u>.

FINAL

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#### Chapter 3



Figure 3-13: Priority Development, Production, and Conservation Areas (Page 4 of 4)

## Equity Priority Communities

Plan Bay Area 2050 identifies Equity Priority Communities (EPCs), formerly called "Communities of Concern," which are census tracts that have a significant concentration of underserved populations, such as households with low incomes and people of color. EPCs are identified based on the concentration of the census tract population meeting the following demographic factors: <sup>63</sup>

- People of Color (70 percent threshold)
- Low-Income (28 percent threshold)
- Limited English Proficiency (12 percent threshold)
- Seniors 75 Years and Over (8 percent threshold)
- Zero-Vehicle Households (15 percent threshold)
- Single Parent Families (18 percent threshold)
- People with a Disability (12 percent threshold)
- Rent-Burdened Households (14 percent threshold)

A census tract is identified as an EPC if it exceeds both threshold values for Low-Income and People of Color, or if the tract meets or exceeds the threshold value for Low-Income and exceeds the threshold values for three or more of the remaining factors.

Since 2001, MTC has used data from the American Community Survey to identify communities (i.e., census tracts) that historically may have faced disadvantage and underinvestment due to their background or socioeconomic status. MTC then directs funding towards these communities to help ensure that historically underserved communities have equitable access to housing and transportation that is within reach of jobs, services, and amenities. There are numerous EPCs within the study area, including Oakland within the study area border, and areas within San Leandro, Cherryland, Ashland and Hayward. **Table 3-8** provides information about the population and land area with the EPCs.

Jurisdiction	Land Area within the EPCs (sq. mi)
Oakland	9.43
San Leandro	2.87
Ashland	0.78
Cherryland	0.96
Hayward	2.95
Total	16.99

#### Table 3-8: EPCs in the Study Area

<sup>&</sup>lt;sup>63</sup> MTC, MTC Plan Bay Area 2050 Equity Priority Communities, accessed July 4, 2022,

https://bayareametro.github.io/Spatial-Analysis-Mapping-Projects/Project-Documentation/Equity-Priority-Communities/#equity-priority-communities-framework-plan-bay-area-2050.

### **Disadvantaged Communities**

Additional analysis has been conducted to identify Disadvantaged Communities (DACs) via CalEnviroScreen 4.0,<sup>64</sup> a screening methodology used to identify communities burdened by multiple sources of pollution. The tool utilizes various sources of data as shown below to determine the level of risk to a community:

- Pollution Burden Exposure Indicators: presence of ozone, fine particulate matter (PM2.5), diesel emissions, drinking water contaminants, children's lead risk from housing, pesticide use, toxic releases from facilities, and traffic impacts.
- Pollution Burden Environmental Effects Indicators: presence of environmental cleanup sites, groundwater quality threats, hazardous waste generators and facilities, pollution-impaired water bodies, and solid waste sites and facilities.
- Population Characteristics Sensitive Population Indicators: asthma, cardiovascular disease, and low birth weight infants.
- Population Characteristics Socioeconomic Factor Indicators: educational attainment, housing-burdened low-income households, linguistic isolation, poverty and unemployment.

**Table 3-9** provides information about the population and land area within the CACCMCP study area with disadvantaged communities.

Jurisdiction	Land Area within the DACs (sq. mi.)		
Oakland	6.52		
San Leandro	0.30		
Ashland	0		
Cherryland	0		
Hayward	0		
Total	6.82		

#### Table 3-9: DACs in the Study Area

EPCs and DACs in the study area are displayed in **Figure 3-14** through **Figure 3-17**, which show significant overlap of high pollution burden in EPCs.

<sup>&</sup>lt;sup>64</sup> California Office of Environmental Health Hazard Assessment, SB 535 CalEnviroScreen, <u>https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40</u>, accessed on June 29<sup>th</sup>, 2022.











### Figure 3-16: Equity Priority Communities/Disadvantaged Communities (Page 3 of 4)





# 3.6 Environmental Considerations

Environmental factors, particularly effects of climate change, are important considerations in the development of the CACCMCP projects. This environmental scan provides high-level identification of select environmental considerations present within the study area.

### **Environmental Considerations**

**Table 3-10** summarizes key environmental considerations within the CACCMCP study area with factors categorized based on a scale of a Low-Medium-High probability of the study area experiencing a given issue. Environmental factors may require future analysis in the project development process and may significantly affect project cost and schedule. For the purposes of the CACCMCP, important environmental considerations for project funding include "mitigation," restoration costs, and protection of critical habitats and open space.

A portion of the I-880 corridor is located in the low-lying tidal lands near Embarcadero where it meets the San Francisco Bay Shoreline. Additionally, the I-880 segment between Oak Street and 5<sup>th</sup> Avenue is in the vicinity of the tributaries, marshlands, and wetlands leading to Lake Merritt in Oakland.

Potential Section 4(f) lands in the study area include parks and recreational areas, publicly owned wildlife and waterfowl refuges, and historic sites of national, state, or local significance.<sup>65</sup> Lake Merritt -Oakland Estuary Channel is an example of a protected area near the I-880 freeway. Other notable lands include Arroyo Viejo Park and Hayward Library Park. Impacts on these locations should be a consideration during operational activities and/or design and construction of transportation projects within the segment.

	Study Segment		
Environmental Factors	SR-185	I-880	I-238
Section 4(f) Land <sup>66</sup>	Low	Low	Low
Farm/Timberland <sup>67</sup>	No	No	No
Floodplain <sup>68</sup>	100-year	100-year	100-year
Climate Change/Sea Level Rise	Low-Med	Low-Med	Low
Waters and Wetlands	Low	Low	Low

#### Table 3-10: Environmental Considerations for the Study Area

<sup>&</sup>lt;sup>65</sup> California Protected Areas Database (CPAD), accessed December 29, 2021, <u>http://www.calands.org</u>.

<sup>&</sup>lt;sup>66</sup> California Department of Fish and Wildlife (CDFW), Biogeographic Information and Observation System (BIOS) Viewer – CDFW Owned and Operated Lands and Conservation Easements, accessed December 29, 2021, <u>https://apps.wildlife.ca.gov/bios/</u>.

<sup>&</sup>lt;sup>67</sup> California Department of Conservation, California Important Farmland Finder, accessed December 29, 2021, <u>https://maps.conservation.ca.gov/DLRP/CIFF/</u>.

<sup>&</sup>lt;sup>68</sup> CDFW, BIOS Viewer – NFHL 1percent (100 year) Flood, accessed December 29, 2021.

## Air Quality

In Alameda County, ozone and fine particle pollution, or PM2.5, are the major regional air pollutants of concern. For much of the study area, ozone rarely exceeds health standards because the area is near the San Francisco Bay which keeps temperature levels below those conducive to ozone formation. PM2.5 is a more significant issue due to cool temperatures, industrial activity at and adjacent to the Port of Oakland, and the presence of wood smoke.<sup>69</sup>

Ozone concentrations are a function of the quantity and spatial distribution of ozone precursor (ROG and NOx) emissions, the ratio of ROG to NOx, meteorological conditions (e.g., temperature, wind speed and direction, etc.), and other factors. Since temperatures over 80°F are typically required for its formation, the CACCMCP study area ozone season tends to run from April to October. During these months, there are roughly 94 days over 80°F, increasing the threat of ozone.<sup>70</sup>

Air quality in the region has improved significantly over the past four decades, but transportation emissions still result in ozone and particulate levels that exceed state and federal standards.<sup>71</sup> From 2003 to 2014, Oakland and surrounding areas succeeded in meeting both targets for annual and 24-hour PM2.5. More recently, however, PM2.5 levels have been increasing. Aside from typical automobile and industrial emissions, Oakland and surrounding areas are also affected by the unpredictable wildfires, which have become increasingly frequent and severe.

Several factors make it difficult to predict when the Bay Area will attain state and national ambient ozone standards<sup>72</sup>:

- Emissions of ozone precursors are projected to continue decreasing in response to existing Air District and Air Resources Board (ARB) regulations and programs. However, it is difficult to predict future emissions with precision.
- Normal fluctuations in weather cause ozone levels to vary from year to year.
- Higher temperatures related to climate change may cause increased ozone formation in future years.
- Wildfires and other hazardous events that could increase in ozone formation

For the Bay Area to fully attain state and national standards, the region must continue its efforts to further reduce emissions of ozone precursors. The efforts may include encouraging walking, bicycling and transit use, that will reduce emissions of ROG and NO<sub>x</sub>. The main sources of ROG emissions in the Bay Area are motor vehicles (23 percent) and other mobile sources (19 percent), as well as evaporation of petroleum and solvents (26 percent). The main sources of NOx emissions in the region are motor vehicles (43 percent) and other mobile sources (41 percent), as well as combustion at industrial and other facilities. More information on Air Quality is provided in Chapter 5.

<sup>&</sup>lt;sup>69</sup> Bay Area Air Quality Management District, Alameda County, accessed July 4, 2022, <u>https://www.baaqmd.gov/about-the-air-district/in-your-community/alameda-county</u>.

<sup>&</sup>lt;sup>70</sup> Air Quality in Oakland, accessed September 28, 2022, <u>https://www.iqair.com/us/usa/california/oakland</u>

<sup>&</sup>lt;sup>71</sup> Bay Area Air Quality Management District, Clean Air Plan (2017).

<sup>&</sup>lt;sup>72</sup> Nonattainment Areas for Criteria Pollutants. https://www.epa.gov/green-book

### Sea Level Rise

The CACCMCP study area includes Lake Merritt Estuary and Tidal Canal, which are vulnerable to the effects of rising sea levels. Current projections published by the Ocean Protection Council in 2018 suggest that sea levels at the San Francisco tide gauge could rise by 1.9 feet by 2050 and 6.9 feet by 2100.<sup>73</sup> The segment of I-880 near the Lake Merritt Estuary is elevated and unlikely to be impacted by sea level rise.

The Caltrans D4 Adaptation Priority Report identifies vulnerable assets statewide based on asset classes, namely, at-grade roadways, bridges, large culverts and small culverts. Below is a list of the identified assets in the study area:

- At-grade roadways: Segments of I-880 between Lake Merritt and 29<sup>th</sup> Avenue and I-880 between 42nd Avenue and Davis Street (SR 112)
- Bridges: Bridges along I-880 between Oakland and Hayward. The I-880 bridge structure over San Leandro Creek and Union Pacific rail line has been identified in the list of California's 25 most traveled bridges that are rated "structurally deficient"<sup>74</sup>

Additional sea level rise mapping data from the Bay Conservation and Development Commission (BCDC) suggests transportation operations throughout the study area will not be impacted by sea level rise by 2050. **Figure 3-18** through **Figure 3-21** illustrates the impacts of sea level rise in the study area.

Sea level rise is perhaps the best documented and most accepted impact of climate change, which can be directly tied to increased levels of greenhouse gas (GHG) emissions, and therefore, transportation operations. The Governor's Executive Order B-30-15 (April 29, 2015) has directed state agencies to reduce GHG emissions 40 percent below 1990s levels by 2030. Caltrans is seeking to partner with local and regional stakeholders to address climate change by adjusting operations on the State Highway System (SHS) and local streets and roads to reduce GHG emissions.<sup>75</sup>

### Temperature

Temperature rise is an important facet of climate change. Summer temperatures are projected to continue rising, and a reduction of soil moisture, which exacerbates heat waves, is projected for much of California. Materials like pavement can be deteriorated by exposure to high temperatures. The Caltrans Vulnerability Assessment Report<sup>76</sup> analyzed changes in the average minimum temperature for the years 2025, 2050, and 2085. Under a high-emissions scenario

https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html.

<sup>&</sup>lt;sup>73</sup> California Ocean Protection Council, State of California Sea-Level Rise Guidance, 2018, accessed July 4, 2022, <u>http://www.opc.ca.gov/webmaster/ftp/pdf/agenda\_items/20180314/Item3\_Exhibit-</u> A\_OPC\_SLR\_Guidance-rd3.pdf.

<sup>&</sup>lt;sup>74</sup> California Highways. Interstate I-880, accessed from <u>https://www.cahighways.org/ROUTE880.html</u>

<sup>&</sup>lt;sup>75</sup> Governor Brown Executive Order Greenhouse Gas Reduction Target (April 29, 2015), accessed July 4, 2022,

<sup>&</sup>lt;sup>76</sup> Caltrans, & WSP, Caltrans Climate Change Vulnerability Assessments: District 4 (2018), 1-73, Tech., accessed July 4, 2022, https://dot.ca.gov/-/media/dot-media/programs/transportationplanning/documents/2019-climate-change-vulnerability-assessments/ada-remediated/d4-summaryreport-a11y.pdf

Representative Concentration Pathways (RCP) 8.5<sup>77</sup>, Alameda County is expected to see an increase of up to 3.9 degrees Fahrenheit by 2025 and up to 5.9 degrees Fahrenheit by 2055 compared to the 1990 base year temperatures. By 2085, Alameda County could see an increase of 6 to 9.9 degrees Fahrenheit. This indicates that increasing temperatures would need to be considered as a part of pavement design for any projects planned for the study area, and more frequent maintenance of the existing pavement facilities may be needed.

The consideration of climate change effects can differ for pavement design when compared to other Caltrans assets. Many assets, including roadways, bridges, and culverts will likely be in place for many decades or longer than asphalt pavement. Asphalt pavement is replaced approximately every 20-25 years, or sooner if quality degrades more rapidly depending on the traffic type and volumes.

### Precipitation

Increasing temperatures are expected to result in changing precipitation events due to an increase in energy and moisture in the atmosphere. Increased precipitation levels, combined with other changes in land use and land cover, can increase the risk of damage or loss from flooding. Transportation assets in California are affected by precipitation in a variety of ways, such as inundation/flooding due to heavy rainfall events, landslides and washouts, or structural damage from heavy rain events. Many of these impacts may lead to disruptions of key transportation infrastructure and services.

The Caltrans District 4 Vulnerability Assessment Report used RCP 8.5 to analyze a 100-year storm event, defined as a storm event that has a 1 percent annual chance of occurring in any given year. Most of Alameda County is expected to see a zero to 4.9 percent increase in precipitation by 2025. The primary concern regarding transportation assets is not the overall volume of rainfall observed over an extended period, but rather the expectation of changing future conditions for heavy precipitation and the potential for increasing damage to the State Transportation Network. The impact of changing precipitation events highlights the need for resilient design, regular monitoring, and maintenance.

<sup>&</sup>lt;sup>77</sup> The IPCC represents future conditions through a set of Representative Concentration Pathways (RCPs) that reflect four separate scenarios of changes in greenhouse gas emission concentrations given different global economic forces and/or government policies. These RCPs include four scenarios – RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5 – which assume that emissions would start to decline in the near term, by 2040, by 2080, or will continue unabated to the end of the century.

Figure 3-18: Potential Impacts of Sea Level Rise (Page 1 of 4)



Figure 3-19: Potential Impacts of Sea Level Rise (Page 2 of 4)









### Figure 3-21: Potential Impacts of Sea Level Rise (Page 4 of 4)



# 4. Multimodal Facilities, Services, and Programs

This chapter describes a range of existing facilities, services, and programs related to public transit, active transportation, and freight facilities within the CACCMCP study area.

# 4.1 Transit Services

Central Alameda County is served by several public transit agencies including BART, Alameda– Contra Costa Transit District (AC Transit), and Amtrak. Approximately 16 percent of study area residents take transit to work, which is less than the average percentage (18 percent) for Alameda County residents. **Figure 4-1** through **Figure 4-4** show transit services within the study area by frequency.

### AC Transit

The AC Transit system is California's third-largest public bus system and serves 13 cities and adjacent unincorporated areas in Alameda and Contra Costa counties, and encompassing a 364-square-mile service area with over 1.5 million residents. As of September 2019, AC Transit operated 128 bus lines, including 60 local lines in the East Bay, 18 Transbay lines connecting the East Bay to San Francisco and the Peninsula, 6 All Nighter late night service lines, 6 FLEX on-demand service vans, and 44 supplementary lines.<sup>78</sup> In the 2020-2021 fiscal year, AC Transit served over 21 million annual riders, including approximately 199,800 paratransit riders. The average weekday ridership was approximately 63,000 per day. As part of its transit network, AC Transit currently operates multiple bus routes within the CACCMCP study area, including the urban crosstown, trunk, major corridor, rapid, supplementary school, and late-night service. AC Transit began Line 1T Tempo Bus Rapid Transit (BRT) service in August 2020 on International Boulevard/East 14<sup>th</sup> Street from Uptown Oakland to Downtown San Leandro.

**Table 4-1** summarizes AC Transit services in the CACCMCP study area with frequencies and major destinations served by the route during weekdays and weekends. These routes provide circulation along local streets and access to major destinations.

<sup>&</sup>lt;sup>78</sup> AC Transit, Ridership, Buses and Service, accessed July 25, 2022, <u>https://www.actransit.org/ridership</u>.

Route	Study Area Jurisdictions Served	Frequency	<b>Major</b> Destinations/BART Connection
1T (TEMPO)	Oakland and San Leandro	Weekdays – 10 mins Weekends – 30 mins	Uptown Oakland, Civic Center, Downtown San Leandro and San Leandro BART
14	Oakland	Weekdays – 17 mins Weekends – 30 mins	Downtown Oakland and Fruitvale BART
62	Oakland	Weekdays – 19 mins Weekends – 30 mins	Lake Merritt BART
96	Oakland	Everyday – 30 mins	Alameda Point, Dimond District and Lake Merritt BART
45	Oakland	Weekdays – 20 mins Weekends – 40 mins	Eastmont Transit Center, Foothill Square and Coliseum BART/Amtrak
34	Oakland, San Leandro, Ashland, Cherryland, and Hayward	Everyday – 1 hour	Hayward BART
35	Oakland, San Leandro and Ashland	Everyday – 1 hour	Bay Fair BART and San Leandro BART
28	San Leandro, Ashland and Hayward	Everyday – 1 hour	Hayward BART
10	San Leandro, Ashland, Cherryland and Hayward	Weekdays – 17 mins Weekends – 20 mins	Hayward BART
801	San Leandro, Ashland, Cherryland, and Hayward	Everyday – 1 hour (until 7 A.M & 8 A.M)	San Leandro BART & Fremont BART
40	Oakland, San Leandro and Ashland	Weekdays – 20 mins Weekends – 30 mins	Eastmont Transit Center and Bay Fair BART
99	Hayward	Weekdays – 20 mins Weekends – 30 mins	Hayward BART and South Hayward BART
41	Hayward	Everyday – 1 hour	Hayward BART and South Hayward BART
93	San Leandro, Ashland, Cherryland and Hayward	Everyday – 1 hour	Bay Fair BART and Hayward BART

### Table 4-1: AC Transit Local Bus Routes, Frequency and Major Destinations

Source: AC Transit, 2022.

Figure 4-1: Local Bus Routes in the Study Area (Page 1 of 4)



Figure 4-2: Local Bus Routes in the Study Area (Page 2 of 4)



#### Figure 4-3: Local Bus Routes in the Study Area (Page 3 of 4)



Figure 4-4: Local Bus Routes in the Study Area (Page 4 of 4)


## BART

The BART system consists of 131.4 miles of heavy rail and 50 stations located in Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara counties. BART offers service on weekdays and weekends, with an average of 411,000 rides per week in 2019.<sup>79</sup>

BART connects the San Francisco Peninsula with communities in the East Bay and South Bay. Within the study area, BART provides key north-south connectivity and connects the following seven BART stations.

 Lake Merritt Station is located near Oakland Chinatown, Laney College, and the Oakland Museum of California.



Coliseum BART Station Photo Credits: Amaya Lim

- **Fruitvale Station** is located near the vibrant Fruitvale Village, an important commercial destination in Oakland.
- **Coliseum Station** is located near the Oakland Arena and provides a transfer to the Oakland International Airport (OAK) BART station.
- San Leandro Station is located within walking distance of Downtown San Leandro.
- **Bay Fair Station** is located in San Leandro and provides access to Bayfair Center and the community of Ashland.
- Hayward Station is located near Hayward City Hall and Downtown Hayward.
- South Hayward Station is located south of Tennyson Road and west of Mission Boulevard.

In 2019, Fruitvale Station served over 8,000 passengers daily. Under post-COVID-19 pandemic conditions, ridership at the Fruitvale Station was the sixth highest compared to all BART stations.<sup>80</sup> **Figure 4-5** shows the trend and a significant drop in ridership during the COVID-19 pandemic.

<sup>&</sup>lt;sup>79</sup> BART, BART Facts 2020, accessed January 11, 2022, <u>https://www.bart.gov/sites/default/files/docs/BARTFacts2020\_Final.pdf</u>.

 <sup>&</sup>lt;sup>80</sup> BART, BART Facts 2021, accessed January 11, 2022, <u>https://www.bart.gov/sites/default/files/docs/BARTFacts2021\_0.pdf</u>.
<sup>4</sup> BART, BART Facts 2022, accessed July 25, 2022,

https://www.bart.gov/sites/default/files/docs/BARTFacts2022.pdf.



Figure 4-5: BART Ridership Trend (FY14-22)

Source: BART Ridership Reports, FY14-22.

#### Amtrak/Capitol Corridor

Amtrak/Capitol Corridor is a 170-mile intercity passenger railroad providing rail service to several counties in Northern California. Capitol Corridor service is operated by a joint powers authority (JPA) comprising six local transit agencies from the eight-county service area.

Three Amtrak stations - Jack London Square and Coliseum, in Oakland; and Hayward Station – are in the study area. Trains serving these locations connect Sacramento and San Jose and provide opportunities for transfers to transit service that extends to San Francisco, Vallejo, and other areas of Northern California and the Central Valley. Transfer opportunities to BART occur within the study area at Coliseum Station. In 2019, Capitol Corridor celebrated a record-high ridership totaling 1.77 million passengers.<sup>81</sup> In the same year, Jack London Oakland to Sacramento trains were observed as one of the highest ridership origin-destination pairs. **Table 4-2** summarizes the Amtrak/Capitol Corridor schedule for service within the study area.

<sup>&</sup>lt;sup>81</sup> Capitol Corridor Joint Powers Authority, Performance Report FY19, accessed January 11, 2022, <u>https://images.capitolcorridor.org/wp-content/uploads/2020/03/CCJPA\_Report2019.pdf</u>.

#### Weekday Weekend Description Route Hours of Hours of **Headways Headways Operations Operations** Auburn – Sacramento – Capitol 5:30 AM -7:15 AM-Emeryville (San Francisco) -1 hour 1-2 hours Corridor 9:50 PM 10:50 PM Oakland – San Jose 9:30 PM 9:30 PM Seattle - Tacoma - Portland departure, departure, Coast 1 departure 1 departure Sacramento - San Francisco Starlight per day per day 9:00 AM 9:00 AM area - Los Angeles arrival arrival

#### Table 4-2: Amtrak Routes in the Study Area

Source: Amtrak Train Schedule, 2022.

The Capitol Corridor South Bay Connect project proposes to relocate the Capitol Corridor passenger rail service between the Oakland Coliseum and Newark from the Union Pacific Railroad (UP) Niles Subdivision to the Coast Subdivision for a faster, more direct route. The relocation would facilitate the separation of passenger and freight rail, resulting in improved rail operations, efficiency, and reliability while minimizing rail congestion within the corridor.<sup>82</sup>

<sup>&</sup>lt;sup>82</sup> Capitol Corridor Joint Powers Authority, South Bay Connect, accessed August 2, 2022, <u>https://www.southbayconnect.com/</u>.

# 4.2 Park & Ride Facilities

The Caltrans Park-and-Ride (P&R) Program facilitates access to transit and ride-sharing services along freeway corridors with the goal of reducing congestion and vehicle miles traveled. In the Bay Area, there are 50 P&R lots with a combined capacity of 5,218 parking spaces and 105 bike lockers. In Alameda County, there are eight P&R lots with a combined capacity of 1,097 parking spaces and 24 bike lockers.<sup>83</sup>

On the north side of Foothill Boulevard at John Drive in Castro Valley, there is one park and ride lot in the study area. This lot has approximately ten parking spaces and is operated by Caltrans and served by AC Transit.

BART owns and operates more than 47,000 parking spaces at 36 stations. The seven BART stations in the study area provide additional P&R facilities for BART



Bike Parking at Lake Merritt Station Photo Credits: Amaya Lim

users. BART charges parking fees typically on weekdays from 4:00 AM to 3:00 PM. Pricing varies by station. **Table 4-3** provides information on the number of parking spaces at P&R facilities.

In addition to the traditional P&R facility, BART has initiated the BART Bike Station program, designed to encourage biking to BART for local transportation. One of the BART Bike Stations is located near the Fruitvale Station, providing a safe and convenient way to park bikes as well as services such as free valet parking, bike repairs, and sales. <sup>84</sup>



Fruitvale Bike Station Photo Credits: bikehub.com

<sup>&</sup>lt;sup>83</sup> Caltrans D4, Park and Ride Lots, accessed August 2, 2022, <u>https://dot.ca.gov/caltrans-near-me/district-</u> <u>4/d4-popular-links/park-and-ride-lots</u>.

<sup>&</sup>lt;sup>84</sup> BikeHub. Easier Bicycle Commuting. Fruitvale BART Station, accessed August 14, 2022, <u>https://bikehub.com/bart/#toggle-id-2</u>.

#### Table 4-3: Park and Ride Facilities

Park and Ride Facility Name	Address	Number of Parking Spaces	Number of Bike Lockers	No. of Spaces at Bike Racks (Inside & Outside Station)
John Drive Park and Ride	North side of Foothill Blvd. at John Drive (Near I-580)	10	-	-
Lake Merritt BART Station	800 Madison St., Oakland, CA 94607	210	84	212
Fruitvale BART Station	3401 East 12th St., Oakland, CA 94601	893	28	249
Coliseum BART Station	7200 San Leandro St., Oakland, CA 94621	888	16	63
San Leandro BART Station	1401 San Leandro Blvd., San Leandro, CA 94577	898	96	91
Bay Fair BART Station	15242 Hesperian Blvd., San Leandro, CA 94578	1,658	28	52
Hayward BART Station	699 'B' St., Hayward, CA 94541	1,468	40	70
South Hayward BART Station	28601 Dixon St., Hayward, CA 94544	1,302	16	86

Note:

Fruitvale BART Station includes 200 bicycle spaces at the Bike Station.

Sources: Caltrans District 4 Park and Ride Lots; BART Parking Snapshot, March 2022; Kittelson & Associates, 2022.

# 4.3 Bicycle and Pedestrian Facilities

The CACCMCP study area currently features various bicycle and pedestrian facilities such as multi-use paths and buffered bike lanes. Several local and regional plans document the existing and planned active transportation network in the study area. Chapter 2 of the CACCMCP includes brief descriptions of such plans.

## **Bicycle Facilities**

There are gaps in the bicycle network throughout the study area. Along primary corridors, portions of International Boulevard and San Leandro Street have no existing on-street bicycle facilities. Portions of major connections, such as High Street, Hegenberger Road, Davis Street, Hesperian Boulevard, Washington Avenue, and Jackson Street, have no or limited bicycle facilities. **Figure 4-6** through **Figure 4-9** show bicycle network throughout the study area. This information was collected from the most recent active transportation plans developed by the local jurisdictions. For illustration purposes, bicycle facilities have been classified into four types, namely, bike paths (Class I), bike lanes (Class II), bike routes (Class III), and cycle tracks (Class IV). Local jurisdictions such as the City of San Leandro have further classified these facilities into sub-types such as bike lanes (Class II) and buffered bike lanes (Class IIB).

Planned projects, such as the East Bay Greenway regional trail, will provide north-south bicycle improvements along the primary corridors. The East Bay Greenway segment between 75<sup>th</sup> Avenue and 85<sup>th</sup> Avenue in Oakland near the Coliseum BART station is already completed, as shown in **Table 4-4**.

Primary Corridors/Major Connections	Segment Limit	Existing Facilities	Planned Facilities
Oakland			
International Boulevard	From 1st Ave. to 53rd Ave.	None	None
International Boulevard	From 53rd Ave. to 81st Ave.	Class II Bike Lanes	None
International Boulevard	From 81st Ave. to 85th Ave.	Class III Shared Lanes	None
International Boulevard	From 85th Ave. to Broadmoor Blvd.	None	None
San Leandro Street	From Fruitvale Ave. to 69th Ave.	None	Class I Shared Use Path (East Bay Greenway- Off Street Trail)

#### Table 4-4: Existing and Planned Bicycle Facilities in the Study Area

Primary Corridors/Major Connections	Segment Limit	Existing Facilities	Planned Facilities
San Leandro Street	From 75th Ave. to 85th Ave.	Class I Shared Use Path (East Bay Greenway- Off Street Trail)	None
San Leandro Street	From 85th Ave. to Broadmoor Blvd.	None	Class I Shared Use Path (East Bay Greenway- Off Street Trail)
Oak Street	From Lakeside Dr. to 2nd St.	Class II Bike Lanes	None
Madison Street	From Lakeside Dr. to 2nd St.	Class II Bike Lanes	None
San Leandro			
East 14th Street	From Broadmoor Blvd. to Chumalia St.	Class II Bike Lanes	None
East 14th Street	Chumalia Street to 150th Ave.	None	None
San Leandro Boulevard	From Broadmoor Blvd. to Davis St.	Class II Buffered Bike Lanes	None
San Leandro Boulevard	Davis St. to Coburn Ct.	Class II Bike Lanes	None
San Leandro Boulevard	Coburn Ct. to East 14th St.	Class IV Bike Lane	None
Davis Street	Alvarado St. to Bancroft Ave.	Class II Bike Lanes	Class IV Protected Bike Lanes
Washington Avenue	Caliente Dr. to 143rd Ave.	Class III	Class II Bike Lane
Ashland			
East 14th Street	150th Ave. to 162nd Ave.	None	Class II Bike Lanes
East 14th Street	162nd Ave. to I-238	Southbound - Class II Buffered Bike Lanes; Northbound – Class IV Protected Bike Lanes	None

Primary Corridors/Major Connections	Segment Limit	Existing Facilities	Planned Facilities
Hesperian Boulevard	East 14th St. to Spring Lake Dr.	Class II Bike Lanes	Class IV Protected Bike Lanes
Hesperian Boulevard	Spring Lake to College St.	Class III Shared Lanes	Class IV Protected Bike Lanes
Cherryland			
Mission Boulevard	I-238 to Rose St.	None	Class IV Protected Bike Lanes
Hayward			
Mission Boulevard	Rose St. to A St.	None	Class IV Protected Bike Lanes
Mission Boulevard	A St. to Tennyson Rd.	None	Class IV Protected Bike Lanes
A Street	3rd St. to Montgomery Ave.	Class III Shared Lanes	Class IV Protected Bike Lanes
A Street	Montgomery Ave. to Meekland Ave.	Class II Bike Lanes	Class IV Protected Bike Lanes
Jackson Street	Soto Rd. to Mission Blvd.	None	Class IV Protected Bike Lanes
Tennyson Road	Mission Blvd. to Baldwin St.	Class II Bike Lanes	Class IV Protected Bike Lanes

Sources: Oakland Bike Plan, 2019; San Leandro Bicycle and Pedestrian Plan, 2018; Alameda County Bicycle and Pedestrian Plan for Unincorporated Areas, 2019; Hayward Bike and Pedestrian Plan, 2020; Kittelson & Associates, 2022.

## **Pedestrian Facilities**

Pedestrian facilities comprise various accommodations such as sidewalks, crosswalks, street furniture, and trails. At a regional level, information related to pedestrian facilities is limited. Hence, to understand the relative walkability within the CACCMCP study area, the United States Environmental Protection Agency's (EPA) National Walkability Index is utilized to develop **Figure 4-10**. EPA's National Walkability Index provides walkability scores based on a simple formula that ranks selected indicators such as land use, diversity, population density, availability of cars, and employment from the Smart Location Database that have been demonstrated to affect the propensity for walk trips. The dataset covers every block group in the nation, providing a basis for comparing walkability from community to community.<sup>85</sup>

Within the CACCMCP study area, communities in Ashland, Cherryland, and South Hayward along East 14th Street/Mission Boulevard have below-average walkability scores.

<sup>&</sup>lt;sup>85</sup> US EPA, Smart Location Mapping, National Walkability Index, 2021, accessed August 15, 2022, <u>https://www.epa.gov/smartgrowth/smart-location-mapping#walkability</u>.



Class IV Bikeway at San Leandro Boulevard near East 14<sup>th</sup> Street Photo Credits: Google Earth



Class I Shared Use Path at San Leandro Boulevard near 85<sup>th</sup> Avenue (East Bay Greenway) *Photo Credits: Google Earth* 



Bicycle Rack in Downtown Hayward Photo Credits: Amaya Lim



High Visible Colored Bicycle Pavement Markings at Mission Boulevard near 167<sup>th</sup> Avenue Photo Credits: Amaya Lim



East 14th Street - Street Benches Photo Credits: Google Earth

## Figure 4-6: Existing and Planned Bicycle Facilities (Page 1 of 4)



Figure 4-7: Existing and Planned Bicycle Facilities (Page 2 of 4)



#### Figure 4-8: Existing and Planned Bicycle Facilities (Page 3 of 4)



## Figure 4-9: Existing and Planned Bicycle Facilities (Page 4 of 4)



## Figure 4-10: Walkability Index (Page 1 of 4)



## Figure 4-11: Walkability Index (Page 2 of 4)



## Figure 4-12: Walkability Index (Page 3 of 4)



## Figure 4-13: Walkability Index (Page 4 of 4)



# Active Transportation Programs

The Alameda CTC Bicycle and Pedestrian Program funds and delivers bicycling and walking projects and programs throughout the county. Programs include Safe Routes to Schools, BikeMobile, Bicycle Safety Education, Bicycling and Bike to Work Day Promotions, and Technical Assistance.<sup>86</sup>

#### Alameda County Safe Routes to Schools (SR2S) Program

The Alameda County Safe Routes to Schools (SR2S) Program prioritizes safe walking and biking to schools. SR2S is a comprehensive and proven approach to increase safe walking and biking to and from schools with the goals of reducing congestion and harmful pollutants around schools and increasing the safety and physical activity of students. What began as a grant-funded pilot at two schools in Oakland has expanded to serve over 260 public elementary, middle, and high schools throughout the county. Over 172,000 students and their families benefit from educational programs that teach traffic safety and safe rolling and walking behaviors, as well as



Crossing Guard near School Photo Credits: Port Washinton-news.com

countywide events that encourage walking, rolling, carpooling, and transit use. The program includes efforts such as the BikeMobile, which visits schools to deliver no-cost bicycle repair and safety training, walking school buses, bicycle and pedestrian safety education for students, and encouragement events.<sup>87</sup>

#### **Mobility Hubs**

Mobility hubs are centers where transit, shared, mobility, walking, and biking come together to offer convenient transfers and first- and last-mile non auto connections to transit and other services. Several efforts within the CACCMCP study area address mobility hubs, as follows:

MTC has an ongoing program focused on the screening, prioritization, and implementation of mobility hubs within the Bay Area. The MTC screening and prioritization process has identified the following BART stations and areas as top locations for potential mobility hubs within the CACCMCP study area:

- Lake Merritt BART
- Fruitvale BART
- San Leandro BART
- Mills College
- Acalanes Drive and Catron Drive (opportunity hub within Community of Concern)
- East 14<sup>th</sup> Street and Blossom Way (opportunity hub within Community of Concern)

<sup>&</sup>lt;sup>86</sup> Alameda CTC, Projects and Programs, accessed January 26, 2022, <u>https://www.alamedactc.org/programs-projects/</u>.

<sup>&</sup>lt;sup>87</sup> Alameda CTC, Safe Routes to Schools, accessed August 14, 2022, <u>https://www.alamedactc.org/programs-projects/safe-routes-to-</u> <u>schools/#:~:text=Safe%20Routes%20to%20Schools%20is,and%20physical%20activity%20of%20students.</u>

• Meekland Avenue and Grove Way (opportunity hub within Community of Concern)

Caltrans D4 is undertaking the Bay Area Mobility Hub Study to identify opportunities to implement mobility hub improvements on Caltrans-controlled properties. Specfic recommendations for the CACCMCP study area have not yet been developed.

The East 14<sup>th</sup> Street/Mission Boulevard and Fremont Boulevard Multimodal Corridor Project<sup>88</sup> identifies Mobility Hubs in the study area. The potential mobility hub components entail infrastructure, mobility services and travel information and data. Potential mobility hub infrastructure improvements include projects at the transit station/stop as well as supportive facilities within a surrounding radius of ½ mile to one mile. Mobility services would serve the transit station and one-to-two mile radius may include car-share, bike-share, scooters, electric mopeds, microstransit, and private employer shuttles. Traveler information and data components address seamless transfers between modes.

Following is the list of recommended locations for mobility hubs within the study area:

- San Leandro BART
- Bay Fair BART
- Hayward BART
- South Hayward BART

<sup>&</sup>lt;sup>88</sup> East 14<sup>th</sup> St./Mission Blvd. and Fremont Blvd. Multimodal Corridor Project Scoping Phase Recommendations Report, <u>https://www.alamedactc.org/wp-</u> <u>content/uploads/2021/02/Final Report E14 Mission Fremont ScopingPhase RPT 20210127.pdf</u>, accessed on October 5<sup>th</sup>, 2022

# 4.4 Transportation Demand Management

Transportation demand management (TDM) is a broad application of programs and services aimed at reducing peak period single occupancy auto travel demand or shifting it to other modes and/or times of day. TDM strategies include the following:

- Alternative mode travel incentives
- Carpool/vanpool incentives
- Subsidized transit passes
- Parking management programs
- Guaranteed ride-home programs
- Alternate mode trip planning websites and applications

Comprehensive TDM programs can also include multimodal infrastructure and operational projects, including, but not limited to, shuttle services, paratransit services, high occupancy vehicle/toll (HOV/HOT) lanes, secure bicycle parking, bicycle and car sharing services, and preferential parking for carpools.

#### Local TDM Initiatives

Alameda CTC incorporates TDM measures into multimodal planning by statutory requirement of the Congestion Management Program (Section 65089 (b)(3) of the California Government Code) and its role as a congestion management agency. The County implements explicit TDM programs (e.g., the Guaranteed Ride Home Program) as well as other activities that promote reducing or managing demand for automobile travel (e.g., Bike Safety Education, the SR2S Program). Alameda CTC supports local governments' TDM efforts and monitors compliance with the TDM Element in Alameda CTC's Congestion Management Program. Private and public shuttle services bolster TDM measures by facilitating multimodal access to key destinations and transit hubs.

#### Transportation Demand Management: Bicycle Travel Promotion and Bike Safety Education

Alameda CTC also encourages bicycling through promotions such as the county's annual Bike to Work Day and Bike to School Day events held in May of each year. These promotions encourage bicycling in Alameda County. In addition, Alameda CTC funds bike safety education, providing free bicycle classes throughout the county that include classroom and onroad instruction for new and experienced cyclists, classes oriented towards adults, teenagers and children, and multilingual options in English, Spanish and Cantonese.

# 4.5 Freight Facilities

Given its proximity to the Port of Oakland seaport complex and Oakland International Airport, Central Alameda County plays an important role in goods movement throughout the Bay Area and the surrounding Northern California mega-region. I-880 is identified as part of the Primary Highway Freight System.<sup>89</sup> SR 185 in Oakland and San Leandro, SR 112 in San Leandro, SR 77 (42<sup>nd</sup> Avenue) in Oakland, and Jackson Street in Hayward serve as local truck routes.

Trucks exceeding 4.5 tons (9,000 pounds) are restricted from using I-580 in Oakland between Grand Avenue and the Oakland/San Leandro border. The restriction was implemented when I-580 was constructed in the 1960s at the request of Alameda County and the Cities of Oakland, Piedmont and San Leandro. In 1999, the restriction was adopted into the California Vehicle Code.<sup>90</sup>

East Oakland residents living near I-880 and truck routes between MacArthur Boulevard and I-880 have raised concerns that the restriction shifts truck traffic and impacts away from wealthier areas near I-580 and onto historically underserved communities in the Oakland Flats. For example, trucks traveling to commercial businesses on Foothill Boulevard and MacArthur Boulevard likely travel a greater distance on at-grade roads from I-880 through underserved communities rather than taking a more direct route using I-580. Caltrans is initiating a study of the truck restrictions in 2023.

**Figure 4-14** through **Figure 4-17** show existing freight facilities in the study area. Trucking is the predominant mode of goods movement in Alameda County, accounting for 81 percent of tonnage moved and 60 percent of value moved in 2012.<sup>91</sup> In comparison, carload rail and container rail combined account for approximately 8 percent of tonnage moved in the county, making rail the second most significant goods movement mode.

<sup>&</sup>lt;sup>89</sup> FHWA, National Highway Freight Network Map and Tables, accessed January 6, 2022, <u>https://ops.fhwa.dot.gov/Freight/infrastructure/ismt/state\_maps/states/california.htm</u>.

<sup>&</sup>lt;sup>90</sup> Caltrans, Special Route Restriction History- Route 580, accessed August 14, 2022, <u>https://dot.ca.gov/programs/traffic-operations/legal-truck-access/restrict-route-580</u>.

<sup>&</sup>lt;sup>91</sup> Alameda CTC, Alameda County Goods Movement Plan, p. 32, <u>https://www.alamedactc.org/wp-content/uploads/2018/11/AlamedaCTC\_GoodsMovementPlan\_FINAL.pdf</u>.

## Figure 4-14: Freight Facilities (Page 1 of 4)



## Figure 4-15: Freight Facilities (Page 2 of 4)



## Figure 4-16: Freight Facilities (Page 3 of 4)



## Figure 4-17: Freight Facilities (Page 4 of 4)





