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# Table of Contents

## Chapter 1
**Executive Summary**

- Introduction .......................................................... 7
- Purpose of the Active Transportation Plan ..................... 8
- What’s in the Plan? ..................................................... 9
- Major Projects and Studies ........................................... 10

## Chapter 2
**Plan Vision and Goals**

- Vision Statement ..................................................... 15
- Goals ........................................................................ 17
- Relationship to Other Documents .................................. 18

## Chapter 3
**Biking, Walking, and Rolling in Emeryville Today**

- Biking, Walking, and Rolling in Emeryville Today .......... 23
- Biking, Walking, and Rolling Safety ............................. 44
- Key Takeaways .......................................................... 52

## Chapter 4
**Projects, Programs, & Policies**

- Projects, Programs, & Policies ...................................... 54
- Multimodal Focus Areas .............................................. 63
  - Bay Trail Recommendations ..................................... 63
  - The Emeryville Loop ................................................. 64
  - Powell Street/I-80 Undercrossing ............................... 72
  - 40th St Multimodal Project ........................................ 73
  - San Pablo Avenue Corridor Project ............................. 76

## Chapter 5
**Implementation and Funding**

- Implementation and Funding ......................................... 133
- Funding Sources .......................................................... 140

## Appendices

- Appendix A: Complete Streets Policy ............................ 3
- Appendix B: Public Engagement Documentation ................. 11
GLOSSARY OF TERMS

Alameda County Transportation Commission (Alameda CTC): Alameda CTC plans, funds, and delivers transportation programs and projects that expand access and improve mobility in Alameda County.

Active transportation: Active transportation is any self-propelled, human-powered mode of transportation, such as walking, biking, or rolling.\(^1\) Rolling includes the use of electric scooters, rollerblades, wheelchairs, skateboards, and other wheeled devices.

Bike Boulevard: Bicycle boulevards are streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. Signs, pavement markings, and speed and volume management measures are used to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets. Bike boulevards are classified as Class III bike facilities by Caltrans.

Bike Lane: Dedicated striped lane for bicycle travel adjacent to traffic. Caltrans classifies Bike Lanes as Class II bikeways.

Bike Route: Signed bike routes on slow speed residential streets where bicyclists share the roadway with motor vehicles. Caltrans classifies Bike Routes as Class III bikeways.

Buffered Bike Lane: Dedicated lane for bicycle travel separated from traffic by a painted buffer. Caltrans classifies Buffered Bike Lanes as Class II bikeways.

Caltrans: Caltrans manages California’s highway and freeway lanes and works with local agencies on transportation projects.

Leading Pedestrian Intervals (LPI): Pedestrian only crossing signals that occur slightly before the green signal for parallel lanes of vehicle traffic, allowing pedestrians to get a head start in the crosswalk and making them more visible to turning motorists.

Metropolitan Transportation Commission (MTC): MTC is the transportation planning, financing, and coordinating agency for the nine-county San Francisco Bay Area.

National Association of City Transportation Officials (NACTO): NACTO is an association of cities and transit agencies formed to exchange transportation ideas, insights, and practices and cooperatively approach national transportation issues.

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\(^1\) Center for Disease Control: www.cdc.gov/healthyplaces/transportation/promote_strategy.htm#:~:text=Active%20transportation%20is%20any%20self,conditions%20in%20the%20United%20States.
**Pedestrian Hybrid Beacon/HAWK:** User-activated traffic control devices that cycle through a flashing yellow, steady yellow, and then steady red light to stop vehicles and allow pedestrians to cross a road safely.

**Planning:** When mentioned in the *Active Transportation Plan*, planning is referring to the field of urban or practice of urban planning, which focuses on transportation, development, land use, and other important topics that impact the physical environments of communities.

**Rectangular Rapid Flashing Beacon (RRFB):** User-activated pedestrian signals that use flashing yellow lights to alert motorists to the presence of people walking in the crosswalk. They can be installed in midblock locations or at intersections where a full traffic signal is not warranted. In residential areas, alternative flashing signs may be considered that illuminate the perimeter of the sign.

**Safe Routes to School:** Safe Routes to School is a nationwide program aimed to make it safer for students to walk and bike to school and encourage more walking and biking where safety is not a barrier.²

**Separated Bikeway:** Raised cycle tracks are bicycle facilities that are vertically separated from motor vehicle traffic. Many are paired with a furnishing zone between the cycle track and motor vehicle travel lane and/or pedestrian area. Source: NACTO.

**Shared-Use Path:** Paths shared by people walking and biking that are completely separated from motor vehicle traffic. Caltrans classifies Shared-Use Paths or Bike Paths as Class I bikeways.

**Walking, Biking, and Rolling Networks:** The success of all modes of transportation is reliant on an established network to connect users to destinations. Walking, Biking, and Rolling Networks consist of infrastructure elements such as sidewalks and bike lanes to provide connectivity for active transportation users.

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² National Center for Safe Routes to School: www.saferoutesinfo.org/
EXECUTIVE SUMMARY
INTRODUCTION

Emeryville has become one of the Bay Area’s top places to walk, bike, or roll due to the City’s investment in comfortable and connected infrastructure. The city’s location, small size, dense development patterns, mix of land uses, and access to local and regional transit also contribute to using sustainable forms of transportation. Emeryville benefits from connected sidewalks and an evolving network of bikeways, including the Bay Trail, Emeryville Greenway, and Doyle Street Greenway. Physical barriers such as the railroad tracks, Interstate 80, and busy arterial roads like San Pablo Avenue and Powell Street remain barriers for many to walk, bike, and roll comfortably and directly.

The City is committed to developing pedestrian and bicycle infrastructure, investing in infill developments, and engaging with the community to support in-town and inter-jurisdictional biking, walking, and rolling. In the past 10 years the City has completed the South Bayfront Bridge to provide another crossing over the railroad tracks. It has also designed and built several separated bikeways, with more on the way.

This plan was developed at a time of racial and environmental crisis compounded by the COVID-19 pandemic. Commuting patterns have been altered due to greater work from home flexibility during the pandemic, but it is unclear whether they will be permanently changed. Bicycling and walking are low-cost and healthy transportation options that provide economic and livability benefits to communities. When Emeryville residents or visitors choose to walk or bicycle the number of cars on the road is reduced, congestion is alleviated, and greenhouse gas (GHG) emissions are reduced. Families that can replace some of their driving trips with active modes of transportation reduce household expenses.

Through the sustained investment in projects and programs included in this Active Transportation Plan, Emeryville has the potential to further encourage residents and visitors to walk, bike, and roll to and through the city for work, shopping, school, and recreational trips. Ultimately, this plan will help the City meet its environmental and economic goals and create a higher quality of life for its residents.
PURPOSE OF THE ACTIVE TRANSPORTATION PLAN

This plan is a blueprint for improving active transportation infrastructure and programs over the next 10 years. The City has a long history of supporting human-powered or active forms of transportation. Active transportation encompasses a number of different modes including rolling devices such as wheelchairs, scooters, skateboards, and rollerblades. This Plan seeks to accommodate the various ways in which people get around. Walking, riding bicycles, and now rolling on electric scooters and other new personal mobility devices provides non-polluting transportation options for residents and visitors. Many of the projects recommended in the City’s Bicycle and Pedestrian Master Plans from 1998 and 2012 have been constructed or are in development. This Active Transportation Plan leverages the work completed to date and provides newly revised recommendations based on an analysis of recent data and community input. The plan enables the City to focus on projects that will have the most impact on improving safety, comfort, and mobility for all. The document complements the Emeryville General Plan and guides the implementation of general plan policies that support active forms of transportation.

The Active Transportation Plan is a guide for improving the quality of life for every resident, worker, and visitor by providing not just safe, but joyful experiences on its streets, sidewalks, and trails.
WHAT'S IN THE PLAN?

CHAPTER 2: Plan Vision and Goals outlines the vision, goals, and policies that guide this Active Transportation Plan. By establishing consensus around a vision for how the City’s active transportation network should operate, the City can prioritize investments that help realize its goals.

CHAPTER 3: Biking, Walking, and Rolling in Emeryville Today describes the active transportation landscape in Emeryville, including a discussion of related themes that inform the recommended infrastructure projects, programs, and policies in the community. Understanding Emeryville’s current travel patterns, strengths, and challenges will inform which types of projects and programs the City needs to thrive.

CHAPTER 4: Projects, Programs & Policies introduces the different types of biking, rolling, and walking projects and supporting amenities recommended for implementation. This chapter presents potential investments for the City to make that will respond to the transportation needs identified in previous chapters.

CHAPTER 5: Implementation and Funding outlines a strategy for the implementation of the proposed infrastructure projects as well as the recommended best practices for biking, walking, and rolling programs and policies. Public resources are limited and the City needs a strategy for assembling funding from internal and external sources.

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By the numbers

- 12 engagement activities held
- Over 1,300 people participated
- 9 meetings with the Bicycle and Pedestrian Advisory Committee
- 16.5 miles of new bikeways recommended
- 5.3 miles of separated bikeways recommended
- 32 crossing improvements recommended
MAJOR PROJECTS AND STUDIES

1) Emeryville Loop Multi-Modal Project
The Emeryville Loop Multi-Modal Project is located in central Emeryville and provides safe crossings and improved biking, walking, and rolling connections to the surrounding commercial areas.

2) Alameda CTC San Pablo Avenue Corridor Project
The Alameda CTC San Pablo Avenue Corridor Project will include the addition of separated bikeways on San Pablo Avenue as well as improved crossings at key intersections in Emeryville.

3) 40th Street Multi-Modal Project
The 40th Street Multi-Modal Project includes transit improvements along the entire east-west corridor as well as biking, walking, and rolling improvements.

4) Powell Street/I-80 Undercrossing
A number of biking, walking, and rolling improvements are recommended as part of the Powell Street/I-80 Undercrossing Study, including separated bikeways, improved biking, walking, and rolling connections at the I-80 Undercrossing, and improved crossings at intersections.

5) Bay Trail Access Improvements
The Plan includes infrastructure recommendations such as new shared-use path connections, the Ashby Interchange Overcrossing, trail rehab projects, trail widening studies, and crossing improvements that will improve access to the Bay Trail.
Map 1. Proposed Bikeways

PROPOSED BIKEWAYS
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIIB Bicycle Boulevard
- Class IV Separated Bikeway
- Study
- Trail Rehab Project

*Design features may be adjusted during design development.

EXISTING BIKEWAYS
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIIB Bicycle Boulevard
- Class IV Separated Bikeway

DESTINATIONS + BOUNDARIES
- Park
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad
- Park
- City Boundary
Map 2. **Proposed Pedestrian Improvements**

**Proposed Pedestrian Improvements**

New Sidewalk / Pedestrian Path
- Improve Existing Sidewalk
- Class I Shared-Use Path
- Study

*Design features may be adjusted during design development.*

**Existing Pedestrian Paths**

- Class I Shared-Use Path
- Bay Trail (Pedestrian Only)

**Destinations + Boundaries**

- Park
- School
- City Hall
- Post Office
- Amtrak Station

- Railroad Track
- Park
- City Boundary

**Data Source:** City of Emeryville. May 2022.
Map 3. Proposed Spot Improvements

SPOT IMPROVEMENTS

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Proposed Spots
- New Crossing
- Upgrade Crossing
- Major Intersection Upgrade
- Traffic Signal
- Undercrossing Improvement
- Signage

*Design features may be adjusted during design development.

Proposed Studies
- Study

Existing Infrastructure
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Class IIIIB Bicycle Boulevard
- Class IV Separated Bikeway
- Bay Trail (Pedestrian Only)

Destinations + Boundaries
- Park
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- Park
- City Boundary

Data Source: City of Emeryville. May 2022.
PLAN VISION AND GOALS
VISION STATEMENT

Purpose: This chapter outlines the vision, goals, and policies that guide this Active Transportation Plan.

Why it matters: By establishing consensus around a vision for how the City’s active transportation network should operate, the City can prioritize investments that help realize its goals.

The vision and goals of the Emeryville Active Transportation Plan are drawn largely from community and bicycle and pedestrian advisory committee (BPAC) input along with the current Emeryville General Plan and 2012 Pedestrian and Bicycle Plan. General Plan Guiding Principles related to biking, walking, and rolling are paraphrased as follows:

- A connected place: New and safe bicycle and pedestrian linkages across town and to the San Francisco Bay
- Enhanced and connected open space network and green streets: Building on the strength and connectivity of the city’s greenways
- A diversity of transportation modes and choices: Fosters and provides incentives for active transportation modes

Improving car-free ways to access the waterfront is a priority for Emeryville residents and visitors.
Vision

The vision statement expresses what walking, bicycling, and rolling will be like in Emeryville in the future if the City successfully implements this *Active Transportation Plan*. The updated vision statement is:

*The City of Emeryville is a community where active, sustainable transportation is the easy choice: it is safe, comfortable, equitable, and accessible to all.*

The continuous, connected network of world-class facilities eliminates the necessity of driving a car and makes active transportation accessible to people of all identities (race, ethnicity, age, gender, socio-economic status, ability, or orientation). The City promotes active travel through infrastructure, education, and encouragement programs. The City inspires other communities with its visionary and forward-thinking commitment to active transportation.
GOALS

**Comfortable**
The active transportation network is easy to navigate, including for parents, children, and seniors. Best practices in infrastructure design and programming reduces the risk of serious injury while walking, biking, or rolling throughout Emeryville.

**Connected**
The active transportation network is seamlessly integrated both within Emeryville and externally to neighboring communities. It allows for intermodal connectivity. Reaching destinations is direct and barrier-free.

**Joyful**
Traveling along well-designed routes in the active transportation network is an enjoyable and attractive experience. People feel connected to one another and take pride in their streets and trails as public spaces and desirable destinations.

**Equitable**
The needs of the less resourced, whether by income, ability, employment access, education, age or another characteristic where disparity exists, are centered in project and program planning, prioritization, and implementation and given equal weight to residents’ more resourced counterparts.¹

**Sustainable**
To help mitigate the climate crisis and reduce local pollution, the active transportation network encourages mode shift to zero-emission travel (walking, biking, rolling, and public transit) and helps lower the carbon footprint of those living and working in Emeryville. It includes other environmental benefits by increasing the number of shade trees and acreage of green stormwater infrastructure.

¹ Equity addresses the differences in lived experiences that may affect access to the active transportation network. Disadvantaged communities have a disproportionate burden of adverse environmental conditions, socioeconomic factors, and prevalence of certain health conditions.

**Implementable**
The City incorporates active transportation network improvements into all aspects of the planning, development and construction process, including new private development projects. The City tackles complex and simple problems alike, allocating appropriate resources and creativity to each. The City leverages opportunities, large and small, to prioritize and implement any aspect of the active transportation network.
Emeryville’s **General Plan** (Updated 2019) guides the physical development of the City and sets out five guiding principles:

1. **A cohesive city of distinctive districts and livable neighborhoods.** Emeryville’s growth is shaped—through land use, urban form, and design—to create a tapestry of distinctive districts, and neighborhoods with a full complement of uses and easy access to parks, stores, and other amenities of everyday living.

2. **A connected place.** The General Plan fosters new connections— for automobiles, pedestrians, and bicyclists—between the western and eastern halves of the city; better connections to the Peninsula; and new and safe pedestrian and bicycle linkages to the San Francisco Bay.

3. **Enhanced and connected open space network and green streets.** The General Plan outlines strategies for an expanded public realm, building on the strength and connectivity of the city’s greenways, with a range of new parks, plazas, community commons, and recreational paths.

4. **A walkable, fine-grained city, emphasizing pedestrians.** The General Plan establishes that all of Emeryville will be easily traversed on foot.

5. **A diversity of transportation modes and choices.** The General Plan fosters and provides incentives for alternative transportation modes, including transit, car/vanpooling, bicycling, walking, and telecommuting.

The **Active Transportation Plan** helps the City realize these guiding principles along with implementing goals, policies, and recommendations adopted through complementary City planning efforts such as the City’s **Climate Action Plan 2.0**, Citywide **Planning Regulations and Design Guidelines**, **Sustainable Transportation Plan**, and **Complete Streets Policy** (Resolution 13-03).
Climate Action Plan 2.0

The long term goal is to reduce Emeryville’s GHG emissions to 80% below 2004 baseline levels by the year 2050 while creating a more vibrant, sustainable, and equitable city. Transportation is the single largest contributor to Emeryville’s community GHG emissions, particularly considering the highways running through the city. Reducing transportation-related reductions will not only involve improving low-carbon transportation infrastructure, such as bicycles and buses, but also coordinating land-use policies to promote a denser, more walkable community with jobs and housing located close to other necessities.

The Climate Action Plan details 17 different objectives to achieve the goal of a 40% reduction in emissions by 2030. The three objectives related to the Active Transportation Plan include:

1. Create vibrant neighborhoods where residents can easily walk to their basic daily needs.
2. Reduce the total vehicle miles traveled on local roads by 30%.
3. Reduce the carbon intensity of vehicles through cleaner fuels and electrification by 30%.
Sustainable Transportation Plan

The Emeryville Sustainable Transportation Plan (2012) aims to implement the transportation goals established in the General Plan and achieve Emeryville’s overall vision of having a transportation system that

1. Reduces greenhouse gas emissions,
2. Moves the most people in the least space with the least energy, and
3. Promotes public health through exercise.

The Sustainable Transportation Plan establishes a total of 71 strategies aimed to shift Emeryville residents, employees, and visitors toward sustainable modes of transportation. The strategies are broken into categories related to transit, transportation demand management, parking, wayfinding, and bicycle and pedestrian improvements. The Active Transportation Plan will promote strategies categorized under Pedestrian Connectivity and Safety and Bicycle Connectivity and Safety.
Emeryville Complete Streets Policy

The City of Emeryville envisions a transportation system that encourages healthy, active living, promotes transportation options, reduces environmental impact, imitates climate change, and supports greater social interaction and community identity by providing safe and convenient travel along and access streets through a comprehensive, integrated transportation network for pedestrians, bicyclists, public transportation riders, motorists, emergency responders, and people of all ages and abilities, including children, youth, families, older adults, and individuals with disabilities. All transportation improvements will be planned, funded, designed, constructed, operated, and maintained to provide safe mobility for all users appropriate to the function and context of the facility. The City’s Complete Streets policy expresses a commitment to creating and maintaining Complete Streets that provide safe, comfortable, and convenient travel—for all categories of users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users, and operators of public transportation, emergency responders, seniors children, youth, and families. The full policy can be found in Appendix A: Emeryville Complete Streets Policy.

The Active Transportation Plan also helps the City do its part to achieve larger regional and state goals embraced in Alameda Countywide Transportation Plan 2020, Alameda Countywide Active Transportation Plan, San Pablo Avenue Corridor Project, Plan Bay Area 2050, Caltrans District 4 Bicycle Plan, and Toward an Active California: State Bicycle and Pedestrian Plan.
BIKING, WALKING, AND ROLLING IN EMERYVILLE TODAY
BIKING, WALKING, AND ROLLING IN EMERYVILLE TODAY

Purpose: This chapter describes the active transportation landscape in Emeryville, including a discussion of related themes that inform the recommended infrastructure projects, programs, and policies in the community.

Why it matters: Understanding Emeryville’s current travel patterns, strengths, and challenges will inform which types of projects and programs the City needs to thrive.

Demographics

Emeryville is home to 11,679 residents, according to 2020 American Community Survey five-year estimates. The neighborhoods located in the southeastern corner of the City between San Pablo Avenue and Adeline Street as well as Christie Avenue north of Powell Street contain the highest density of residents compared to other areas of the City (Map 4). In addition to local residents, more than 24,000 employees are based in Emeryville. Major employers within the City include a number of large offices and research facilities such as Pixar, Grifols Diagnostic Solutions, and AC Transit. Emeryville also serves as a regional commercial and retail hub where a number of shopping centers attract many from surrounding areas.

The median age of Emeryville residents is 34.8 years, slightly younger than the median age of the San Francisco-Oakland-Berkeley metro area at 39.1 years. Young adults aged 20-39 account for 54% of Emeryville’s total population, while children account for 8% and adults over the age of 65 account for 11%.

Almost 43% of Emeryville’s residents commute to work by driving alone (Figure 1). 23% reported commuting to work by public transit, and 8% reported biking or walking as their primary mode.
Map 4. Population Density

**Population Density**

**EMERYVILLE ACTIVE TRANSPORTATION PLAN**

People per Square Mile (By Census Block Group)

- 0 - 400
- 401 - 800
- 801 - 1,600
- 1,601 - 2,080

**Destinations + Boundaries**

- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Note: Due to Census Block geometries, this map may not reflect the precise variation in population density in each area.

Emeryville’s current land use is a mix of residential, office, commercial, and industrial land-use types. Mixed-use areas are the most prevalent land-use type, accounting for 45% of the total land area. Prominent mixed-use areas are clustered around 40th Street, Shellmound Street, Christie Avenue, and San Pablo Avenue.

Emeryville contains a variety of employment, retail, and recreational destinations (Map 5). Major destinations within the City include the Bay Street shopping center, Powell Street Plaza, Emeryville Public Market, 40th Street/Shellmound Street shops and restaurants, Ikea, and the City’s major employment centers such as Pixar, Grifols Diagnostic Solutions, and AC Transit. Recreation and park destinations include the Bay Trail, Emeryville Greenway, Emeryville Marina Park, Emeryville Center of Community Life Pool, Christie Park, and Doyle Hollis Park.

The geographic layout of Emeryville’s major destinations, residential neighborhoods, and employers presents challenges to people biking, walking, and rolling between them. Arterial roadways including Powell Street, 40th Street, and San Pablo Avenue, as well as the north-south running I-80 corridor and railroad corridor may create barriers to those using active modes of transportation. The current land-use patterns in Emeryville underlies the importance of creating biking, walking, and rolling facilities that are comfortable for all ages and abilities.
Map 5. **Land Use**

**Land Use Diagram**
- High Density Residential
- Medium-High Density Residential
- Medium Density Residential
- Mixed Use with Residential
- Mixed Use with Non-Residential
- Office/Technology
- Doyle Hollis North Area
- Industrial
- Public
- Marina
- Park/Open Space
- Public/Park
- Other Park Opportunity
- Regional Retail Overlay
- Neighborhood Retail Overlay
- Neighborhood Center
- Major Transit Hub
Transit

Emeryville is served by several transit providers and routes that offer connections to local and regional destinations ([Map 6](#)). The Amtrak Station, AC Transit Transbay bus stops throughout the City, as well as the nearby Ashby, MacArthur, and West Oakland Bay Area Rapid Transit (BART) stations give residents access to the surrounding region. Local bus providers including AC Transit and the Emery Go-Round provide connections in and around Emeryville, as well as to destinations in Berkeley and Oakland. According to AC Transit boarding and alighting counts from 2019, the most popular bus stops are located on 40th Street east of Horton St, San Pablo Avenue, and on Christie Avenue between 64th Street and 65th Street. Casual Carpool Pickup locations are also available to residents near Captain Drive on the peninsula and at the intersection of Christie Avenue and 64th Street. Pedestrian improvements in these areas are especially important to consider in the [Active Transportation Plan](#).

The Horton Street bike lane connects people biking and rolling to the Emeryville Amtrak Station.
Map 6.  Transit

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Transit Stops
- AC Transit Stop (Local)
- AC Transit Stop (Transbay)
- Emery Go-Round
- BART Station
- Amtrak Station
- Casual Carpool Pickup

Destinations + Boundaries
- School
- City Hall
- Post Office
- Park
- Commercial
- City Boundary

Data Source: City of Emeryville, AC Transit, BART. February 2021.
Equity

Equity is a key piece of all planning processes, including Emeryville’s Active Transportation Plan. An equitable transportation system is accessible to underserved communities and is geographically distributed throughout neighborhoods and demographic groups. For the existing conditions phase of the Plan, concentrations of low-income workers and median household incomes within Emeryville were evaluated to better understand where there may be a need for biking, walking, and rolling infrastructure.

The home locations of low-income workers were evaluated using 2018 LEHD data from the U.S. Census Bureau (Map 7). For this analysis, a low-income worker is defined as someone who has a job with earnings of $1,250 per month or less. The home locations of low-income workers who work in Emeryville tend to be clustered on the eastern edge of the City in the neighborhoods along Doyle Street, south of Stanford Avenue, and east of San Pablo Avenue between 40th Street and 48th Street. Active transportation improvements in these areas are especially important to creating an equitable transportation system.

The median household income of the City of Emeryville is $104,063, slightly less than the surrounding San Francisco-Oakland-Berkeley metro area. Areas within Emeryville where median household incomes are lower than the City’s median include the residential areas on the peninsula, the neighborhoods south of 53rd Street between Horton Street and Adeline Street, and the neighborhoods east of Doyle Street (Map 8). Residents of these neighborhoods will benefit from a wider variety of car-free transportation options including improved walking connections to nearby transit stops, low-stress biking and rolling infrastructure, and safer arterial crossings.

Several areas throughout Emeryville emerged as key places to consider for an equitable transportation system. The following locations have both a lower relative median household income than surrounding areas and also a concentration of low-income workers:

- East of San Pablo Avenue between 40th Street and 48th Street
- East of Doyle Street between Peabody Lane and 55th Street
- North of Powell Street between Frontage Road and Captain Drive
Map 7.  **Equity: Low-Income Workers**

**HOME LOCATIONS OF LOW INCOME WORKERS IN EMERYVILLE**

Where Low Income Workers Live (By Census Block Group)

- 1
- 5
- 10

A low income worker for this analysis is defined as someone who has a job in Emeryville with earnings of $1,250 per month or less.

**Destinations + Boundaries**

- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track

**Map Legend**

- Park
- City Boundary

Map 8. **Equity: Median Household Income**

**Median Household Income**

*EMERYVILLE ACTIVE TRANSPORTATION PLAN*

Median Household Income (By Census Block Group)

- **Yellow**: Less than $80,000
- **Green**: $80,000 - $100,000
- **Blue**: $100,000 - $120,000
- **Purple**: $120,000 - $160,000

**Destinations + Boundaries**

- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Note: Due to Census Block geometries, this map may not reflect the precise variation in income in each area. Of note, the Peninsula contains a mixture of high-income housing, low-income housing, and non-residential areas that may not be adequately captured by the Census Block geometries.
Biking, Walking, and Rolling Today

Every year the United States Census surveys how commuters over the age of 16 get to work. Table 1 presents journey to work data for Emeryville and compares it to Berkely, Oakland, Alameda County, California, and the United States. In 2020, the most recent year for which data is available, 5.2% of Emeryville workers walked to work and 2.9% bicycled to work. Emeryville’s active modes and public transit commuting rate is higher than Alameda County, California, and the United States and comparable to Oakland’s commuting trends.

Table 1. Commute Mode Share Comparison

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</tbody>
</table>

Figure 2 presents commuting trends over the past 10 years. While walking to work has declined from 9.6% in 2010 to 5.2% in 2020, bicycling, using public transit, and working from home have all increased. Driving alone in Emeryville has declined 20% over the past decade.
Figure 2. Emeryville Commute Mode Trends, 2010 to 2020

- **Walk**: 9.6% (2010) to 5.2% (2020)
- **Bike**: 1.1% (2010) to 2.9% (2020)
- **Public Transit**: 18.2% (2010) to 15.7% (2020)
- **Drive Alone**: 53.8% (2010) to 43% (2020)
- **Other**: 9.2% (2010) to 10.4% (2020)

Source: U.S. Census
Given the high level of transit use among Emeryville residents, improving pedestrian and bicycle connections to transit will sustain the high level of transit ridership. Providing convenient and safe bicycle connections to employment in downtown Oakland, south Berkeley, and other nearby employment centers may further improve the bicycle and walking mode share. Telecommuting or working from home is also showing greater popularity.

Emeryville’s existing bike network is made up of shared-use paths, separated bikeways, buffered bike lanes, bike lanes, bike routes, and bicycle boulevard (Table 2). Descriptions below outline the definitions of these terms and how they will be used throughout this plan.

### Table 2. Existing Bike Network

<table>
<thead>
<tr>
<th>BIKEWAY TYPE</th>
<th>MILEAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared-Use Path (Class I)</td>
<td>2.1 miles</td>
</tr>
<tr>
<td>Bicycle Lane (Class II)</td>
<td>3.9 miles</td>
</tr>
<tr>
<td>Bicycle Route (Class III)</td>
<td>1.5 miles</td>
</tr>
<tr>
<td>Bicycle Boulevard (Class III)</td>
<td>2.5 miles</td>
</tr>
<tr>
<td>Separated Bikeway (Class IV)</td>
<td>0.7 miles</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.7 miles</strong></td>
</tr>
</tbody>
</table>

Emeryville has a total of 10.7 miles of designated biking facilities (Map 9). These are recorded in the plan as centerline street miles. Bicycle lanes are the most common facility type, accounting for 36% of the total biking network. Bicycle boulevards are the next most common facility type (2.5 miles), followed by shared-use paths (2.1 miles).

Key existing biking and rolling routes through Emeryville include north-south connections on Shellmound Street, the San Francisco Bay Trail, and the Emeryville Greenway, as well as east-west connections on 40th Street and the South Bayfront Bridge. Bicycle boulevards throughout the City also provide important biking routes through residential areas where traffic volumes and speeds are lower. As Emeryville is situated between popular destinations in Oakland and Berkeley, low-stress biking connections not only within City limits but also to surrounding areas will be especially important in the development of project recommendations later in the planning process.
Map 9. **Project Area**

**PROJECT AREA**

**Emeryville Active Transportation Plan**

**Existing Bikeways**
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIIB Buffered Bike Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

Note: Light colors represent bikeways outside of Emeryville’s boundary.

Dashed colors indicate a proposed bicycle facility.

**Destinations + Boundaries**
- Emery Go-Round Stop
- AC Transit Stop
- Park
- School
- City Hall
- Post Office
- Amtrak Station

- Railroad Track
- Residential
- Office / Technology
- Industrial
- Park
- City Boundary

Data Source: City of Emeryville. May 2022.
Bikeway Improvements

Bikeway improvements are either new routes or upgrades to existing routes. Upgraded routes are marked clearly on the map.

Shared-Use Path (Class 1)

Bike paths and shared-use paths are typically paved bi-directional pathways that are separate from the road right-of-way. Ideally, shared-use paths will follow a distinct course in a separate right-of-way, often along former railroad beds, along water courses, or other rights-of-way that usually have few crossing roadways. Source: FHWA.

Bike Lane (Class 2)

Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic. Source: NACTO.

Buffered Bike Lane (Class 2)

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. Source: NACTO.

Bike Boulevard (Class 3)

Bicycle boulevards are streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. Signs, pavement markings, and speed and volume management measures are used to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets. Source: NACTO.
Two-Way Cycle Track (Class 4)

Two-way cycle tracks (also known as protected bikeways, separated bikeways, and on-street bike paths) are physically separated cycle tracks that allow bicycle movement in both directions on one side of the road. Source: NACTO.

Raised Bikeway (Class 4)

Raised cycle tracks are bicycle facilities that are vertically separated from motor vehicle traffic. Many are paired with a furnishing zone between the cycle track and motor vehicle travel lane and/or pedestrian area. Source: NACTO.

Parking Protected Bikeway (Class 4)

One-way parking protected bikeways are at street level and use a parking lane for physical protection from passing traffic. Source: NACTO.
SAN FRANCISCO BAY TRAIL AND PARK ACCESS

Emeryville is home to a scenic and well-traveled segment of the San Francisco Bay Trail—a 350-mile shared-use path network that circumnavigates the San Francisco Bay. Located along the City’s waterfront, Emeryville’s Bay Trail segment provides walking and rolling access to the Bay Bridge as well as numerous parks along the waterfront including McLaughlin Eastshore State Park, the Emeryville Marina Park, Point Emery, the Berkeley Marina, Cesar Chavez Park, Golden Gate Fields, and the Albany Bulb. Walking and rolling routes to reach the trail within Emeryville are key connections in the active transportation network.

The Emeryville Marina is a popular biking, walking, and rolling destination.
**EMERYVILLE GREENWAY**

In addition to the San Francisco Bay Trail, Emeryville also contains exemplary low-stress biking facilities in the form of a shared-use path greenway that connects to a residential slow street where cars are not permitted to drive. The Emeryville Greenway combined with the Doyle Street slow street enables biking and rolling conditions that are comfortable for all ages and abilities and are characterized by minimal interactions with car traffic. The Greenway serves as a prominent north-south connection in the City’s existing biking and rolling network, connecting to Berkeley’s 9th Street bicycle boulevard to the north and the South Bayfront Bridge to the south where users can access the Bay Trail and Mandela Parkway. The Greenway provides an essential backbone when considering how to best maximize Emeryville’s all ages and abilities network.

*The Emeryville Greenway hosts a number of different user types with a wide range in abilities.*
Pedestrian Network

There are many features that contribute to a comfortable and safe walking environment.

New/Improved Sidewalk

Sidewalks and walkways are “pedestrian lanes” that provide people with space to travel within the public right-of-way that is separated from roadway vehicles. Source: FHWA.

Crosswalk

Marked crosswalks indicate optimal or preferred locations for pedestrians to cross and help designate right-of-way for motorists to yield to pedestrians. Source: FHWA.

Rectangular Rapid Flashing Beacon (RRFB)

RRFBs are pedestrian-actuated conspicuity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. Source: FHWA.

Pedestrian Hybrid Beacon (PHB)

PHBs can warn and control traffic at unsignalized locations and assist pedestrians in crossing a street or highway at a marked crosswalk. The PHB rests in dark until a pedestrian activates it via a pushbutton or other form of detection. Source: FHWA.

Curb Extensions

Curb extensions—also known as bulb-outs or neckdowns—extend the sidewalk or curb line out into the parking lane and reduce the effective street width. Source: FHWA.
Leading Pedestrian Interval (LPI)
LPIs can be programmed into traffic signals to minimize conflicts between pedestrians crossing a roadway and left- or right-turning vehicles. LPIs give the pedestrian the WALK signal 3-7 seconds before the motorists are allowed to proceed through the intersection, which makes them more visible. Source: FHWA.

Median Refuge Island
A median refuge island, or crossing island, is a median with a refuge area that is intended to help protect pedestrians crossing a multilane road. Crossing islands should be considered as a supplement to the crosswalk. A pedestrian refuge island allows pedestrians to focus on one direction of traffic at a time as they cross and provides space to wait for an adequate gap in oncoming traffic before finishing the second phase of the crossing. Source: FHWA.

Signal Timing Adjustments
In general, shorter cycle lengths (ideally less than 90 seconds) and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, fixed-time signal operation usually works best because it provides an automatic pedestrian phase. Source: FHWA.

No Right on Red
Prohibiting right turns on red should be considered where exclusive pedestrian phases or high pedestrian volumes are present. Source: FHWA.
The majority of Emeryville’s street network is equipped with sidewalks. When considering the existing pedestrian network, data gathered by the City using input from the community highlighting sidewalk barriers and width restrictions was examined (Map 10). The following corridors contain a high density of sidewalk width restrictions relative to other areas within Emeryville:

- 40th Street between Halleck Street and Adeline Street
- 64th Street between Christie Avenue and Vallejo Street
- Powell Street between Frontage Road and Beaudry Street

Arterial roadways also pose challenges to people walking throughout Emeryville. As Emeryville provides on-ramp and off-ramp connections to I-80, high traffic volumes and multiple lanes often characterize the areas surrounding walking destinations. Pedestrian signals and intersection upgrades that provide more protection for people walking will help improve the City’s existing sidewalk network and encourage walking as a mode of transportation.

**EXISTING ACTIVE TRANSPORTATION PROGRAMS**

Bicycle, walking, and rolling focused programs provide education and encouragement for residents. Pre-pandemic, Bike to Work Day was a celebration of bicycles as a fun and healthy way to get to work, as well as an opportunity for those who do not usually bike commute to try it out. Organized by Bike East Bay, the City of Emeryville has a long history of sponsoring "Energizer Stations" where participants can receive free snacks and coffee from local businesses, repair kits, and goodie bags.
Map 10. **Pedestrian Network**

**Pedestrian Network**

**Emeryville Active Transportation Plan**

Pedestrian Facilities
- Pedestrian Signal
- Class I Shared-Use Path
- Bay Trail

Pedestrian Challenges
- Sidewalk Width Restriction
- Arterial Roadway

Destinations + Boundaries
- Park
- School
- City Hall
- Post Office
- Amtrak Station

Railroad Track
- Park
- City Boundary

Data Source: City of Emeryville. May 2022.
BIKING, WALKING, AND ROLLING SAFETY

Bicycle and pedestrian-related collision data can provide insight into specific locations and roadways that tend to have higher rates of collisions. This analysis uses collision data acquired from University of California (UC) Berkeley’s Transportation Injury Mapping Systems (TIMS) between the dates 1/1/2012 and 12/31/2018 to determine high-level collision trends and areas in Emeryville with a history of frequent collisions. It is important to note that this analysis relied on reported collisions, and not all collisions involving people biking, walking, and rolling are reported.

In total, 64 bicycle-related collisions and 50 pedestrian-related collisions occurred in Emeryville during the study period. Bicycle-related collisions per year did not tend to drastically fluctuate from year to year, though reported collisions almost quadrupled from 2017 to 2018 (Figure 3). Pedestrian-related collisions similarly did not drastically fluctuate throughout the study period either (Figure 4). One pedestrian fatality occurred at the intersection of Powell Street and Christie Avenue in the pedestrian right-of-way.

Figure 3. Bicycle-related collisions

Figure 4. Pedestrian-related collisions
Bicycle-related Collision Trends

Bicycle-related collisions during the study period most commonly resulted in ‘Complaint of Pain’ or ‘Minor Injury’ severity types (Figure 5). Corridors within Emeryville that contain the highest rate of bicycle-related collisions include 40th Street, San Pablo Avenue, and Powell Street (Map 11). The following trends emerged during the safety analysis:

- At the intersection of 40th Street and Emery Street, three of five total bicycle-related collisions resulted from a vehicle improperly turning.

- Of the six collisions that occurred at the intersection of 40th Street and Hubbard Street, three were a result of improper turning and two were a result of people biking in the automobile right-of-way.

- Two bicycle-related collisions occurred at the intersection of San Pablo Avenue and 43rd Street in the pedestrian right-of-way.

- A severe collision occurred on the 45th St bicycle boulevard at the San Pablo Avenue crossing due to improper passing.

Figure 5. Bicycle collision severity
Map 11. Bicycle Collisions

BICYCLE COLLISIONS
EMERYVILLE ACTIVE TRANSPORTATION PLAN

Bicycle Collisions (2012 - 2018)
- Severe Injury
- Minor Injury

Destinations + Boundaries
- Park
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Data Source: City of Emeryville. UC Berkeley TIMS. January 2021.
Pedestrian-related Collision Trends

Pedestrian-related collisions during the study period most commonly resulted in ‘Complaint of Pain’ or ‘Minor Injury’ severity types (Figure 6). Corridors within Emeryville that contain the highest rate of pedestrian-related collisions include San Pablo Avenue, Powell Street, 40th Street, and Hollis Street (Map 12). The following trends emerged during the safety analysis:

- Six pedestrian collisions occurred at the intersection of 40th Street and San Pablo Avenue during the study period.
- Fourteen collisions occurred within 500 feet of a school.

Collision Hotspots Analysis

In this safety analysis, collision hotspots are defined as locations where three or more bicycle or pedestrian-related collisions occurred. Eleven intersections throughout Emeryville were identified (Map 13). The following locations experienced five or more active transportation-related collisions during the study period:

- 40th Street and San Pablo Avenue
- 40th Street and Hubbard Street
- 40th Street and Emery Street
- 40th Street and Adeline Street
- Powell Street and Christie Avenue
- Stanford Avenue and Hollis Street
- Park Avenue and San Pablo Avenue
**Pedestrian Collisions**

**Emeryville Active Transportation Plan**

Pedestrian Collisions (2012 - 2018)

- **Fatality**
- **Severe Injury**
- **Minor Injury**

**Destinations + Boundaries**

- Park
- School
- City Hall
- Post Office
- Amtrak Station

- Railroad Track
- City Boundary

**Map 12. Pedestrian Collisions**

Data Source: City of Emeryville, UC Berkeley TIMS, January 2021.
Map 13. **Collision Hot Spots**

**COLLISION HOT SPOTS**

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Intersections with Clusters of 3 or More Bicycle and Pedestrian Collisions (2012 - 2018)

- 3
- 4 - 5
- 6 - 8

- Fatality
- Severe Injury

**Destinations + Boundaries**
- Park
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Data Source: City of Emeryville, UC Berkeley TIMS. January 2021.
Connectivity

The Bicycle Level of Traffic Stress (BLTS) analysis in this plan measures the perceived stress levels of people biking or rolling along Emeryville’s roadways and shared-use paths. The less stressful—and therefore more comfortable—a biking and rolling facility is, the more accessible it will be to a larger portion of the population, both in age and ability. A biking and rolling network will be more comfortable if it is designed to reduce stress associated with potential vehicle conflicts.

Bikeways are considered low-stress if they involve very little traffic interactions by nature of the roadway’s vehicle speeds and volumes (e.g., a shared low-traffic neighborhood street) or if there are greater degrees of physical separation between the bikeway and traffic lane (e.g., a separated bikeway on an arterial roadway). In order to evaluate how well connected and comfortable Emeryville’s existing bike network is, a BLTS analysis was performed on the city’s street and trail network.

The BLTS analysis quantifies stress levels when a person is riding or rolling along a roadway, bike facility, or shared-use path. Inputs into how stressful a roadway or bikeway may seem include the number of traffic lanes, speed limit, presence of a bike facility, and presence of a physical separator between the bike facility and moving vehicles. The following levels of perceived stress, described by the type of biker or roller the facility generally appeals to, were assigned to Emeryville’s active transportation network:

- BLTS 1: All Ages and Abilities
- BLTS 2: Average Adult
- BLTS 3: Confident Adult
- BLTS 4: Fearless Adult

Emeryville’s BLTS analysis revealed locations that are highly stressful for people biking and rolling, as well as areas where the low-stress network for all ages and abilities should be improved and better connected to popular destinations (Map 14). San Pablo Avenue and Powell Street emerged as the most stressful roadways to bike or roll on. Areas where low-stress bikeways intersect these high-stress arterials such as the intersection of 45th Street and San Pablo or Horton Street and Powell Street emerge as places to be considered for spot improvements during the recommendations phase of the plan. When considering Emeryville’s existing low-stress network and the destinations it connects to, notable gaps include the Bay Street Shopping Mall, connections to the Bay Trail from north of Powell Street, and the commercial areas along 40th Street.
Map 14. Bicycle Level of Traffic Stress

BICYCLE LEVEL OF TRAFFIC STRESS

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Bicycle Level of Traffic Stress (BLTS) Score

- BLTS 1: All Ages and Abilities
- BLTS 1.5: All Ages and Abilities (Residential)
- BLTS 2: Average Adult
- BLTS 3: Confident Adult
- BLTS 4: Fearless Adult

Destinations + Boundaries

- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

**KEY TAKEAWAYS**

Four key takeaways emerged from the existing conditions and data analysis phase of the plan:

**Arterial roadways crossings are stressful**
The following arterial streets should be considered for crossing improvements and/or parallel low-stress walking and rolling routes:

- 40th Street
- Powell Street
- San Pablo Avenue

**Focus area: San Pablo Avenue and Adeline Street**
Residents with the lowest incomes live in the southeast corner of Emeryville on each side of San Pablo Avenue and Adeline Street. It also has the highest population density, meaning that there is greater need and opportunity to serve this area with low-cost transportation options.

**Walking routes can be improved by removing identified barriers**
Sidewalks near schools, community centers, transit corridors, and commercial areas with width restrictions should be considered to improve walkability.

**The existing bikeway network is not comfortable for all ages and abilities**
Upgrading existing bikeways to lower stress facilities and improving bicycle boulevard arterial crossings will make the rolling network more accessible to a wider audience.
PROJECTS, PROGRAMS, & POLICIES
PROJECTS, PROGRAMS, & POLICIES

Purpose: This chapter introduces the different types of biking, rolling, and walking projects and supporting amenities recommended for implementation.

Why it matters: This chapter presents potential steps the City can take to meet the transportation needs identified in previous chapters.

What We Heard

Across all of our outreach efforts with Emeryville residents and community members, we heard:

- Arterial roadways create barriers to people walking and rolling in Emeryville.
- There is a need for improved street crossings along transit corridors.
- Greenways and bike boulevards work well as walking and rolling routes.
- There is a need for low-stress walking and rolling routes to transit, parks, schools, and shopping.

Pedestrians enjoy strolling along the Marina.
How Did We Develop the Recommended Biking, Walking, and Rolling Network?

**NEEDS ASSESSMENT**

**Safety** – We identified where the most severe and highest number of repeat collisions were located.

**Equity** – We mapped the density of low-income workers throughout the City to understand which areas would most benefit from low-cost transportation options.

**Comfort** – We identified segments of the roadway network that are high-stress for people biking, walking, and rolling to understand existing barriers.

**Connectivity** – We assessed connectivity to popular destinations such as the Bay Trail and shopping centers for those using the all ages and abilities network.

**PUBLIC INPUT**

Key destinations, barriers in the active transportation network, and popular routes were identified by participants through an online web map and survey.

A need for improved biking, walking, and rolling routes was recorded through community meetings, listening sessions, biking and walking tours, online engagement, and youth outreach events.

**EMERYVILLE BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE**

Emeryville’s BPAC provided direct feedback and revisions to the project team at each step of the active transportation planning process—from visions and goals to infrastructure recommendations.

The BPAC’s project wish lists from 2018, 2019, and goals from 2020 provided a foundation for the project team to build from when developing network recommendations.
What We’ve Proposed

ALL AGES AND ABILITIES NETWORK

The all ages and abilities network lays out the proposed bikeway facilities that provide comfortable connections across and throughout Emeryville (Map 15). This network is comprised of facilities that provide as much separation as possible between vehicles and people biking or rolling including shared-use paths, separated bikeways, and greenways. Bike boulevards are not included in the all ages and abilities network as they do not provide separation between vehicles and people biking or rolling. Bike boulevards are not included in the all ages and abilities network as they do not provide separation between vehicles and people biking or rolling.

Key east-west connections in the proposed all ages and abilities network include separated bikeway facilities on 40th Street, Powell Street, and 65th Street, and a proposed greenway on 53rd Street. Key north-south connections include separated bikeway facilities on Shellmound Street and San Pablo Avenue, as well as shared-use paths parallel to I-80 and extending from Halleck Street.

SAFE ROUTES TO BIKING, WALKING, AND ROLLING DESTINATIONS

Throughout the public engagement process, community members expressed a need for more comfortable and improved walking and rolling routes to major destinations within Emeryville. In order to overcome existing barriers and gaps within the active transportation network, the project team used input from the public web map, community meetings, and walking and rolling tours to better understand where community members would like to go. Following public input, the project team focused on how to make the walking and rolling routes to parks, trails, shopping, transit, and schools more accessible and comfortable.

The following maps present Emeryville’s parks, shopping, transit, and school destinations overlaid with the vision all ages and abilities network. The implementation of these biking and rolling projects aims to make these locations accessible to all users regardless of age or ability.

The following maps present Emeryville’s parks, shopping, transit, and school destinations overlaid with the vision all ages and abilities network. The implementation of these biking and rolling projects will improve the accessibility and connectivity of these locations for all users, regardless of age or ability.

- Map 16 Safe Routes to Parks + Trails
- Map 17 Safe Routes to Shopping
- Map 18 Safe Routes to Transit
- Map 19 Safe Routes to School
COMMORTABLE AND CONNECTED PEDESTRIAN NETWORK

Community members mentioned obstructions in the walking path, upturned surfaces, and a lack of comfortable and wide walking spaces as the most common barriers in Emeryville’s walking network. Using a two pronged approach, the project team assessed both opportunities for larger scale shared-use paths across the city, as well as localized improvements to existing sidewalks based on feedback from community members.

INTERSECTION UPGRADES

Arterial crossings throughout Emeryville create barriers to people biking, walking, and rolling. Major intersection upgrades are proposed at a number of locations along Powell Street, 40th Street, San Pablo Avenue, and Hollis Street.

Obstructions such as signs, traffic poles, and utilities along narrow sidewalks create barriers to people walking.
ALL AGES AND ABILITIES NETWORK

EMERYVILLE ACTIVE TRANSPORTATION PLAN

All Ages and Abilities Network (Existing + Proposed)

The All Ages and Abilities Network includes: Class I Shared-Use Paths, Class IV Separated Bikeways, and Overcrossings.

Non All Ages and Abilities Network (Existing + Proposed)

The Non All Ages and Abilities Network includes: Class IV Separated Bikeways and Class V Unpaved Paths.

Destinations + Boundaries

- School
- City Hall
- Post Office
- Amtrak Station

Railroad Track
City Boundary

Data Source: City of Emeryville. August 2022.
Map 16. Recommended Safe Routes to Parks + Trails

SAFE ROUTES TO PARKS + TRAILS

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Parks + Trails Network (Existing + Proposed)

- Fully Built All Ages and Abilities Network
- Park

Destinations + Boundaries

- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Map 16. Recommended Safe Routes to Parks + Trails

Data Source: City of Emeryville. August 2022.
SAFE ROUTES TO SHOPPING

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Shopping Network (Existing + Proposed)
- Fully Built All Ages and Abilities Network
- Commercial and Mixed-Use

Destinations + Boundaries
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Data Source: City of Emeryville. August 2022.
Map 18. **Recommended Safe Routes to Transit**

**SAFE ROUTES TO TRANSIT**

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Transit Network (Existing + Proposed)
- Fully Built All Ages and Abilities Network
- AC Transit Stop
- Emery Go-Round
- Amtrak Station
- Casual Carpool Pickup

Destinations + Boundaries
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Data Source: City of Emeryville. August 2022.
Map 19. **Recommended Safe Routes to School**

**SAFE ROUTES TO SCHOOLS NETWORK**

**EMERYVILLE ACTIVE TRANSPORTATION PLAN**

Safe Routes to School Network (Existing + Proposed)

- Fully Built All Ages and Abilities Network

**Destinations + Boundaries**

- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- City Boundary

Data Source: City of Emeryville. August 2022.
MULTIMODAL FOCUS AREAS

Destinations and barriers identified in the data needs analysis or that came up frequently in conversations with community members have been highlighted as focus areas. These areas include a suite of recommendations and may align with work already underway. The multimodal focus areas improve conditions for walking, bicycling, and access to transit.

BAY TRAIL RECOMMENDATIONS

The San Francisco Bay Trail is a regional biking, walking, and rolling route that will eventually circumnavigate the San Francisco Bay. Emeryville’s coastline hosts popular existing on- and off-street segments of the regional trail, as well as a couple spur routes that lead to the Bay Bridge and the Emeryville Marina.

Throughout the public engagement processes, walking and rolling access to the Bay Trail emerged as a key priority for Emeryville’s community members. With barriers in mind such as getting across I-80 and the railway corridor, the project team focused on walking and rolling infrastructure improvements at key access points to the Bay Trail such as Powell Street, 40th Street, and the South Bayfront Bridge. The project team also proposes trail rehab improvements to the existing Bay Trail segment from Powell Street north to the city’s border with Berkeley.

These improvements may include trail repaving, crossing improvements, weeding, and trail maintenance recommendations.

All improvements to the Bay Trail will following the design guidelines and toolkit provided by the MTC.

Consistent with the general plan and in the interest of providing shoreline access to the Bay Bridge, this Plan calls for a feasibility study to determine if a bicycle and pedestrian path can be developed adjacent to the Emeryville Crescent without negatively impacting sensitive habitat.
THE EMERYVILLE LOOP

The Emeryville Loop project will provide safe, low-stress biking and walking routes to work and shopping destinations in central Emeryville and new designated transit lanes. The project closes a major gap in the City’s existing active transportation network by providing a new pedestrian connection on Powell Street between Christie Avenue and Shellmound Street. Today, wide multilane arterial roadways that funnel high traffic volumes on and off I-80 pose barriers to people biking, walking, and rolling in the project area. This project will create separation between moving car traffic and people using active modes along high-stress arterials (Powell Street, Christie Avenue, Shellmound Street) and provide intersection improvements to make the arterial crossings safer and more comfortable.
The project includes construction of new two-way Class IV separated bikeway facilities on high-stress arterial roadways, construction of new sidewalk to close a gap in the existing walking network, widened sidewalk, the installation of protected intersections at four major four- to six lane arterial intersections, one new midblock crossing, and dedicated transit lanes. These countermeasures will create a safer, low-stress environment for people biking, walking, and rolling.

Improvements in the project area will provide safer connections to low-wage workers who use transit or active modes of transportation to get to and from work. The project will also serve those residing in nearby equity priority communities located 900 feet east of the project. Not only is the project directly adjacent to regional retail destinations such as the Bay Street Shopping Mall, Powell Street Shopping Center, the Emeryville Public Market, and major hotel chains, but the project also connects these destinations to each other and diminishes barriers to reaching them. In addition to providing low-stress access, the project improves active transportation routes for those accessing regional destinations such as the Bay Trail, Amtrak Station, and the Emeryville Greenway.

The estimated cost to design and construct this project is $10,550,000.
MULTIMODAL FOCUS AREAS

THE EMERYVILLE LOOP: CONCEPT DESIGN

Christie Avenue/Powell Street
City of Emeryville Active Transportation Plan

Christie Avenue/Powell Street
City of Emeryville Active Transportation Plan
MULTIMODAL FOCUS AREAS

THE EMERYVILLE LOOP: CONCEPT DESIGN

Christie Avenue
City of Emeryville Active Transportation Plan
MULTIMODAL FOCUS AREAS

THE EMERYVILLE LOOP: CONCEPT DESIGN

Christie Avenue/Shellmound Street
City of Emeryville Active Transportation Plan
MULTIMODAL FOCUS AREAS

THE EMERYVILLE LOOP: CONCEPT DESIGN

Shellmound Street/Powell Street Overcrossing
City of Emeryville Active Transportation Plan
MULTIMODAL FOCUS AREAS

THE EMERYVILLE LOOP: CONCEPT DESIGN

Shellmound Street/Shellmound Way/Christie Avenue
City of Emeryville Active Transportation Plan
Table 3. **Emeryville Loop Multimodal Project**

The Emeryville Loop Multimodal Project will include intersection upgrades and bike, ped, and transit improvements. The proposed improvements in this plan will be assessed for compatibility with the Emeryville Loop Project.

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>STREET</th>
<th>PROPOSED IMPROVEMENT</th>
<th>START</th>
<th>END</th>
<th>MILEAGE</th>
<th>EXISTING BIKEWAY</th>
<th>NOTES</th>
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</thead>
<tbody>
<tr>
<td>B17</td>
<td>Shellmound Way</td>
<td>Class IV Separated Bikeway</td>
<td>Christie Ave</td>
<td>Shellmound St</td>
<td>0.08</td>
<td>None</td>
<td>Emeryville Loop. Two-way Separated Bikeway on south side of street</td>
</tr>
<tr>
<td>B18</td>
<td>Shellmound St</td>
<td>Class IV Separated Bikeway</td>
<td>Christie Ave</td>
<td>Shellmound Way</td>
<td>0.16</td>
<td>Class II Bicycle Lane</td>
<td>Emeryville Loop. Two-way Separated Bikeway on west side of street</td>
</tr>
<tr>
<td>B46</td>
<td>Christie Ave</td>
<td>Class IV Separated Bikeway</td>
<td>Shellmound Way</td>
<td>Powell St</td>
<td>0.07</td>
<td>None</td>
<td>Emeryville Loop. Two-way Separated Bikeway on east side of street</td>
</tr>
<tr>
<td>P7</td>
<td>Powell St</td>
<td>New Sidewalk</td>
<td>Christie Ave</td>
<td>Shellmound St</td>
<td>0.08</td>
<td>NA</td>
<td>Emeryville Loop pedestrian walkway on southside of Powell St</td>
</tr>
<tr>
<td>P8</td>
<td>Shellmound St - Powell Underpass</td>
<td>Improve Existing Sidewalk</td>
<td>New Midblock Crossing</td>
<td>Hyatt Hotel Parking Lot Entrance</td>
<td>0.02</td>
<td>NA</td>
<td>Fill sidewalk gap underneath Powell St on east side of roadway, remove obstructions in walking path including signs and landscaping that makes corners and navigation difficult for wheelchairs.</td>
</tr>
<tr>
<td>SP15</td>
<td>Christie Ave &amp; Powell St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Eliminate one right-turn lane/ arrow on Christie southbound and Powell eastbound. Northwest corner (southbound Christie onto westbound Powell) turn radius squared. All-ped scramble study.</td>
</tr>
<tr>
<td>SP16</td>
<td>Shellmound St &amp; F-bus stop/Four Points Sheraton Hotel</td>
<td>New Crossing</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Add midblock crossing across from Four Points Sheraton at F-bus stop</td>
</tr>
</tbody>
</table>
### Multimodal Focus Areas

**Powell Street/I-80 Undercrossing**

The Powell Street/I-80 Undercrossing provides a key connection to the Bay Trail and the Emeryville Marina. Drawn from feedback from the BPAC and public, a number of walking and rolling infrastructure projects are recommended to improve access to the Bay Trail and to create comfortable and safer connections along Powell Street for users of all ages and abilities.

The following improvements are recommended to improve the Powell Street/I-80 Undercrossing:

- **Separated Bikeway (Class IV) Study on Powell Street from Commodore Drive to Vallejo Street.**
- **Shared-Use Path (Class I) on the north side of Powell Street from Frontage Road to the I-80 northbound on-ramp.**
- **North-south Shared-Use Path (Class I) connection on the east side of I-80 from 65th Street to Shellmound Street across from Ikea.**
- **Intersection Improvement Study at the Powell Street and I-80 undercrossing.**
- **Major Intersection Upgrades at the intersections of Powell Street and Frontage Road, and Powell Street and Christie Avenue.**

As an important component of Emeryville’s active transportation network, the Powell Street Undercrossing improvements will ease the perceived biking, walking, and rolling stress due to vehicular traffic and will enable more users to use multimodal transportation as an alternative to driving.
Another important multimodal focus area for biking, walking, and rolling infrastructure improvements includes the 40th Street Multimodal Project. The City of Emeryville has developed a 40th Street Concept Plan to create bus-only lanes (one by converting the westbound mixed-flow lane to bus-only), a two-way bikeway on the north side of the street, bicycle-pedestrian intersection improvements, bus stop improvements including passenger boarding areas, and streetscaping with opportunities for green infrastructure (natural storm water treatment) and public art. The City has received funding to move into the next phase of detailed engineering and is assembling funding for construction. The Active Transportation Plan is consistent with this effort.
Project recommendations along 40th Street to improve the active transportation network include:

- Separated Bikeway (Class IV) on 40th Street from Shellmound Street to Adeline Street
- Major Intersection Upgrades along 40th Street at the intersections of Hubbard Street, Haven Street, Emery Street, San Pablo Avenue, and Adeline Street
- Shared-Use Path (Class I) on the north side of 40th Street from Halleck Street to Hubbard Street
- New Sidewalk on Hubbard Street from Sherwin Avenue to 40th Street
- Improved Sidewalk on Hollis Street from Park Avenue to 40th Street
- Bus Stop Improvement at the intersection of Hollis Street and 40th Street

For more information see Table 4: 40th Street Multimodal Project. The estimated cost to design and construct this project is $16,800,000.
Table 4. **40th Street Multimodal Project**

The 40th Street Multimodal Project will include intersection upgrades and bike, ped, and transit improvements. The proposed improvements in this plan will be assessed for compatibility with the 40th Street multimodal project.

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>STREET</th>
<th>PROPOSED IMPROVEMENT</th>
<th>START</th>
<th>END</th>
<th>MILEAGE</th>
<th>EXISTING BIKEWAY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>B36</td>
<td>40th St</td>
<td>Class I Shared-Use Path</td>
<td>Halleck St</td>
<td>Hubbard St</td>
<td>0.06</td>
<td>Class II Bicycle Lane</td>
<td>Add Shared-Use Path on north side of 40th Street.</td>
</tr>
<tr>
<td>B37</td>
<td>40th St</td>
<td>Class IV Separated Bikeway</td>
<td>Hubbard St</td>
<td>Adeline St</td>
<td>0.65</td>
<td>Class II Bicycle Lane</td>
<td>40th Street and San Pablo Avenue Bus Hub Project. Transit access improvements such as improved sidewalk and shelters should be evaluated at all bus stops along 40th St. BPAC Wishlist 2017.</td>
</tr>
<tr>
<td>B39</td>
<td>40th St Bridge</td>
<td>Class IV Separated Bikeway</td>
<td>Shellmound St</td>
<td>Hubbard St</td>
<td>0.34</td>
<td>Class II Bicycle Lane</td>
<td>Install flexible bollards on 40th Street for protection from moving vehicles.</td>
</tr>
<tr>
<td>SP27</td>
<td>40th St &amp; Hubbard St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>From 40th and San Pablo Bust Hub Project: Curb extensions on northern leg, dashed green pavement markings for 40th St 2-way Class IV, “Look Right” signs at crosswalk.</td>
</tr>
<tr>
<td>SP28</td>
<td>40th St &amp; Bridgecourt Office</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Sidewalk ramps on 40th St on both sides of office entrance</td>
</tr>
<tr>
<td>SP29</td>
<td>40th St &amp; Emery St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Northwest protected corner, bike boxes, dashed green pavement markings, green-backed sharrows, consider bike signal head, add LPI</td>
</tr>
<tr>
<td>SP30</td>
<td>40th St &amp; San Pablo Ave</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>From 40th and San Pablo Bust Hub Project: Northeast protected corner, curb extensions, upgrade sidewalk, bike boxes, dashed green pavement markings, green-backed sharrows, consider bike signal head, add LPI</td>
</tr>
<tr>
<td>SP31</td>
<td>40th St &amp; Adeline St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Northwest protected corner, curb extensions, upgrade sidewalk, bike boxes, dashed green pavement markings, green-backed sharrows, consider bike signal head, add LPI</td>
</tr>
</tbody>
</table>
The San Pablo Avenue Corridor Project will implement improvements to make San Pablo Ave function better and be safer for people who walk, bike, drive, and take the bus. In Oakland, Emeryville, and several blocks of South Berkeley, designs for side-running bus lanes on San Pablo Ave are advancing with consideration of protected bike lanes. The process includes robust stakeholder engagement to discuss the conversion of the curbside lane to a bike lane and understand the viability of alternative loading and parking options. In Oakland, Emeryville, Berkeley, and Albany, enhancements will include more high-visibility and signalized crosswalks, improved bike crossings, upgraded lighting at bus stops and at crosswalks, and accessibility upgrades to serve people with disabilities. For more information, see this link.
In addition to aligning with the ongoing Alameda CTC project, the project team proposes the following infrastructure improvements to the biking, walking, and rolling network along the San Pablo Avenue Corridor:

- Separated Bikeways (Class IV) on San Pablo Avenue from 53rd Street to 36th Street
- Improved Sidewalk connection on 45th Street from Horton Street to San Pablo Avenue
- Shared-Use Path (Class I) connection to San Pablo Avenue on 53rd Street from Horton Street to Adeline Street
- Major Intersection Upgrades on San Pablo Avenue at the intersections of 53rd Street, 45th Street, 43rd Street, Park Avenue, and 40th Street
- New Midblock Crossing on San Pablo Avenue 200 feet south of 40th Street near Yerba Buena Avenue

For more information see Table 5: Alameda CTC San Pablo Avenue Corridor Project and visit www.alamedactc.org/programs-projects/multimodal-arterial-roads/sanpabloave/
Table 5. **Alameda CTC San Pablo Avenue Corridor Project**

As of Winter 2022, San Pablo Avenue is funded for bicycle and transit lanes, which will include intersection upgrades. The proposed improvements in this plan will be assessed for compatibility with the Alameda CTC corridor project.

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>STREET</th>
<th>PROPOSED IMPROVEMENT</th>
<th>START</th>
<th>END</th>
<th>MILEAGE</th>
<th>EXISTING BIKEWAY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>B31</td>
<td>San Pablo Ave</td>
<td>Class IV Separated Bikeway</td>
<td>36th St</td>
<td>54th St</td>
<td>0.72</td>
<td>None</td>
<td>Alameda CTC San Pablo Avenue Corridor Project. This area is under Caltrans jurisdiction. Caltrans may or may not approve proposed projects.</td>
</tr>
<tr>
<td>SP21</td>
<td>San Pablo Ave &amp; 53rd St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Add LPI, protected intersection with curb extensions, consider dashed green pavement markings across San Pablo</td>
</tr>
<tr>
<td>SP24</td>
<td>San Pablo Ave &amp; 45th St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Consider adding dashed green pavement markings or green-backed sharrows to help bike visibility for those crossing San Pablo on the bike boulevard, consider bike signal head for left turns.</td>
</tr>
<tr>
<td>SP25</td>
<td>San Pablo Ave &amp; 43rd St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Add crosswalk on south leg, curb ramps on south leg, curb extensions for safer standing area, and upgrade existing RRFB to PHB.</td>
</tr>
<tr>
<td>SP26</td>
<td>San Pablo Ave &amp; Park Ave</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Add LPI, curb extensions, bike boxes, dashed green pavement markings to connect from Park Ave left turn onto San Pablo Class IV, green-backed sharrows, consider bike signal head.</td>
</tr>
<tr>
<td>SP30</td>
<td>San Pablo Ave &amp; 40th St</td>
<td>Major Intersection Upgrade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>From 40th and San Pablo Bust Hub Project: Northeast protected corner, curb extensions, upgrade sidewalk, bike boxes, dashed green pavement markings, green-backed sharrows, consider bike signal head, add LPI</td>
</tr>
<tr>
<td>SP32</td>
<td>San Pablo Ave &amp; Yerba Buena Ave</td>
<td>New Crossing</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Midblock crossing, median refuge island, RRFB, yield lines</td>
</tr>
</tbody>
</table>
Wayfinding
Wayfinding provides direction and creates a sense of place for people biking and rolling. Emeryville currently uses purple branded street signs to designate which streets are included in the citywide bike boulevard network. Outlined in more detail later in the chapter, continuing and expanding wayfinding efforts throughout the City’s active transportation network will improve the quality and usability of the existing and proposed network.

New Mobility
Bike share and micromobility (scooters, e-bikes, and other personal mobility devices) are becoming an increasingly important component of the transportation environment. These mobility devices can be personally owned and rented as part of shared mobility systems. Shared micromobility systems can be operated under many different operating models and sizes to fit the specific needs and goals of the City and the community.

Implementation of these systems creates additional flexible, lower-cost transportation options within the service area. Powered micromobility devices expand the suite of alternative transportation modes that can reduce automobile dependency. They can be more readily combined with transit and human-powered transportation trips to expand transportation options.

There are six principles that should help guide micromobility systems planning and infrastructure design:

1. Advance mobility justice:
   Micromobility can provide users with healthy, safe, and affordable transportation options that provide access to economic opportunities. Powered mobility devices can further enhance this effect. Micromobility and bike share systems should be implemented to equitably and successfully serve equity priority communities and areas with concentrations of walking and bicycling.

2. Design for safety:
   Designing for safety requires identifying and prioritizing the most vulnerable roadway and trail users first, then accounting for design features that will improve safety for all users.

3. Complement the natural environment:
   Shared-use paths and green infrastructure components can complement the natural environment while preserving the user experience.
4. Prioritize the human experience: Micromobility and bike share specific infrastructure should strive for a consistent user experience across the City. Implementing these items should be done with a “do no harm” approach to incorporating these modes along existing active and shared modes of transportation.

5. Expand user amenities: With powered micromobility and other new and emerging modes, public charging infrastructure offers convenience while also reducing risk of “stranded” users or inoperable devices/vehicles that have lost power. Such investments can also provide public charging for motorized wheelchairs or personal phones.

6. Design for the future: New mobility and bike share staff should track trends, identify shifts in user groups, and conduct research when possible (surveys, counts, or data from vendors). Understanding these trends can help Emeryville prepare for future investments in these areas.

Micromobility systems should include accessible vehicles within their fleets. The City and system operator should conduct targeted outreach to the appropriate stakeholder groups to better define and plan for their specific needs.

The City should also provide dedicated scooter/bike share parking locations. These locations should be found throughout the service area and should be designed and located to minimize disruptions to other people biking, walking, and rolling.

In addition to micromobility vehicle and program design, the development of successful micromobility systems is also dependent on construction and maintenance of safe and comfortable travel facilities. Providing low-stress on- and off-street travel facilities will make traveling by bike or scooter more attractive, which will help convert trips from single occupancy vehicles and improve access to transit services for longer journeys. Comfortable on-street or trail facilities can also reduce instances of users riding on the sidewalk.

The City may consider pursuing a Micromobility Feasibility Study to determine where and how to implement a micromobility program in conjunction with feedback from the community.

For more information on multimodal studies recommended in this plan, see Table 6.
Table 6. Multimodal Studies

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>STREET</th>
<th>PROPOSED BIKEWAY</th>
<th>START</th>
<th>END</th>
<th>MILEAGE</th>
<th>EXISTING BIKEWAY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Christie Ave</td>
<td>Study</td>
<td>Powell St</td>
<td>65th St</td>
<td>0.55</td>
<td>None</td>
<td>Separated Bikeway Study. Street width ranges from 56’ near Powell to 42’ with parking in middle section, 32’ no parking towards north.</td>
</tr>
<tr>
<td>S2</td>
<td>Hollis St</td>
<td>Study</td>
<td>40th St</td>
<td>67th St</td>
<td>1.36</td>
<td>None</td>
<td>Study potential for installing bike lanes on Hollis St as part of the transit street. Sidewalk and pedestrian improvements included.</td>
</tr>
<tr>
<td>S3</td>
<td>Powell St</td>
<td>Study</td>
<td>Commodore Dr Frontage Rd</td>
<td>0.42</td>
<td>Class IIB Buffered Bicycle Lane</td>
<td>Study: Two-way Separated Bikeway on road, south side of Powell, 6’ bike lanes and 4’ buffer, reduced median, and travel lanes narrowed to 11’. Alt: One-way Separated Bikeway</td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>Powell St</td>
<td>Study</td>
<td>Frontage Rd</td>
<td>Christie Ave</td>
<td>0.15</td>
<td>None</td>
<td>Study: Two-way Separated Bikeway on road, south side of Powell. Alt: One-way Separated Bikeway. Alt: consider upgrading existing Shared-Use Path to separate walkers and bikers. This area is under Caltrans jurisdiction. Caltrans may or may not approve proposed projects.</td>
</tr>
<tr>
<td>S5</td>
<td>Powell St</td>
<td>Study</td>
<td>Christie Ave</td>
<td>Hollis St</td>
<td>0.31</td>
<td>None</td>
<td>Study: Two-way Separated Bikeway on road, south side of Powell, 5’ lanes and 5’ buffer, remove one travel lane. Alt: One-way Separated Bikeway</td>
</tr>
</tbody>
</table>
### Table 6, continued

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>STREET</th>
<th>PROPOSED BIKEWAY</th>
<th>START</th>
<th>END</th>
<th>MILEAGE</th>
<th>EXISTING BIKEWAY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>S6</td>
<td>Powell St</td>
<td>Study</td>
<td>Hollis St</td>
<td>Vallejo St</td>
<td>0.20</td>
<td>None</td>
<td>Study: Two-way Separated Bikeway on road, south side of Powell, 5’ lanes and 6’ buffer, remove one travel lane, requires traffic signal rephasing for bike signal. Alt: One-way Class Separated Bikeway</td>
</tr>
<tr>
<td>S7</td>
<td>Beaudry St</td>
<td>Study</td>
<td>Powell St</td>
<td>Stanford Ave</td>
<td>0.04</td>
<td>None</td>
<td>Study: Add Bike Boulevard on Beaudry St. Make one-way southbound and extend sidewalk 1/2 of street</td>
</tr>
<tr>
<td>S7</td>
<td>Doyle St</td>
<td>Study</td>
<td>Powell St</td>
<td>Stanford Ave</td>
<td>0.06</td>
<td>None</td>
<td>Study: Make Doyle Street between Powell St and Stanford Ave one-way northbound for cars. Repurpose half of street as sidewalk / park extension</td>
</tr>
<tr>
<td>S7</td>
<td>Stanford Ave</td>
<td>Study</td>
<td>Horton St</td>
<td>San Pablo Ave</td>
<td>0.48</td>
<td>None</td>
<td>Study: Eliminate on-street parking, replace with contra-flow Separated Bikeway, eastbound travel lane as Class 3B. Consider implementing speed humps</td>
</tr>
<tr>
<td>S8</td>
<td>Bay Trail</td>
<td>Study</td>
<td>Frontage Rd</td>
<td>Davenport Mini Park</td>
<td>2.04</td>
<td>Pedestrian Path</td>
<td>Shared-Use Path widening study</td>
</tr>
<tr>
<td>S9</td>
<td>Park Ave</td>
<td>Study</td>
<td>Hollis St</td>
<td>San Pablo Ave</td>
<td>0.31</td>
<td>None</td>
<td>Multimodal corridor study. Consider: Add Separated Bikeway, convert angled parking to parallel parking, widen sidewalk</td>
</tr>
</tbody>
</table>
Bicycling challenges and opportunities identified in the data needs analysis or came up frequently in conversations with community members have been highlighted as focus areas. These areas include a suite of recommendations and may align with work already underway. The bikeway focus areas include:

- Separated Bikeways
- Emeryville Greenway/Doyle Street
- Stanford Avenue Study
- Leveraging Street Closures and Shared-Use Paths

The Emeryville Greenway provides raised crosswalks at intersections.
BIKEWAYS: BIKING AND ROLLING FOCUS AREAS

SEPARATED BIKEWAYS

Separated Bikeways (Class IV) are on-street bike lanes that are separated from motor vehicle traffic by a curb, median, planter boxes, parking, or other physical barrier. By separating people biking and rolling from moving traffic, these bike facilities offer a higher level of security than standard bike lanes and are designed to be comfortable for a wider spectrum of ages and abilities.

The project team proposes separated bikeways on the follow arterial roadways in Emeryville to create a safer and more comfortable biking and rolling network:

- Shellmound Street from 67th Street to 40th Street
- 40th Street from Shellmound Street to Adeline Street
- 65th Street from Shellmound Street to the Emeryville Greenway
- The Emeryville Loop from Powell Street to Christie Avenue to Shellmound Way to Shellmound Street
- San Pablo Avenue from 53rd Street to 36th Street
- Doyle Street and 47th Street from 45th Street to the Community Pool

The addition of separated bikeways to Emeryville’s existing biking and rolling network will create a backbone of safe and comfortable facilities that connect both north-south and east-west. The proposed facilities cover the entire city and improve access to the Bay Trail, shopping, and retail centers, as well as destinations in Berkeley and Oakland.
Another key focus area in the biking and rolling network is the Emeryville Greenway and Doyle Slow Street. The Emeryville Greenway currently extends from Berkeley’s 9th Street bike boulevard to Emeryville’s Horton Street bike boulevard. As an integral segment of a regionally significant biking and walking route, improvements along the Greenway and Doyle Slow Street as well as to the connections to get there are especially important to creating a connected and comfortable network.

The following projects are recommended to improve the Emeryville Greenway:

- Raised Separated Bikeway (Class IV) on Doyle Street from Ocean Avenue to 61st Street
- Bike Boulevard (Class IIIB) connection on 63rd Street from Doyle Street to Vallejo Street
- Bike Boulevard (Class IIIB) connection on 61st Street from Doyle Street to Vallejo Street
- Bike Boulevard (Class IIIB) connection on 67th Street from Shellmound Street to the Emeryville Greenway
- Trail Rehab on the Emeryville Greenway between Horton Street and Peladeau Street
- Intersection upgrades at Stanford Avenue, Powell Street, 59th Street, Ocean Avenue
- New Signage at the intersections of 65th Street, 66th Street, and 67th Street
The Stanford Avenue Study is a multijurisdictional study that seeks to improve the biking, walking, and rolling connection between central Emeryville, Oakland, and Berkeley. The study includes separated bikeways (Class IV) on Stanford Avenue from San Pablo Avenue to the Emeryville Greenway, as well as north-south improvements between Stanford Avenue and Powell Street on Beaudry Street and Doyle Street. The study aims to connect to the proposed Shared-Use Path on Stanford Avenue from the Emeryville border to King Street derived from the 2019 Let’s Bike Oakland Plan. This new facility will create a safer and more comfortable connection for Emeryville residents and community members to access the Ashby BART Station and downtown Berkeley. The estimated cost to conduct this study is $250,000.
**Bikeways Toolbox**

Different types of bikeways are better suited for different types of roadways. Given the variation of roadway types in Emeryville, ranging from six lane arterial roadways to low-traffic volume residential streets, the planning team used local knowledge, speed limits, traffic volumes, and roadway widths to determine which type of biking or rolling facility or upgraded facility was best suited for each area on the active transportation network.

### Shared-Use Path (Class I)
- Paths shared by people walking and biking completely separated from motor vehicle traffic
- Comfortable for people of all ages and abilities
- Typically located with or along parks, roadways medians, rail corridors, or bodies of water

### Separated Bikeway (Class IV)
- On-street bicycle space that is fully separated from motor vehicle traffic by either planter boxes, parking, curbs, or other physical barriers
- Often comfortable for all ages and abilities
Buffered Bicycle Lane (Class II)
- Dedicated on-street bicycle lane that is separated from motor vehicle traffic by a painted buffer on the roadway
- The buffer provides additional comfort by providing space between people biking or rolling and moving motor vehicle traffic

Bicycle Boulevard (Class III)
- Calm local streets where people biking and rolling have priority, but share roadway space with motor vehicles
- Comfortable for people biking and rolling with a wider range of comfort levels
- Shared roadway bicycle markings on pavement and traffic calming measures such as speed bumps or traffic diverters characterize this facility type

Bicycle Lane (Class II)
- On-street dedicated lane for people biking or rolling that is directly adjacent to moving vehicles
- Comfortable for people biking or rolling who are confident in their abilities, and less suited for all ages and abilities
Bike Route (Class III)
- Signed on-street bikeway route where motor vehicles and people biking and rolling share the same space
- Comfortable for more confident people biking or rolling
- Used when space for a bicycle may not be feasible
- Can include pavement markings

Biking and Rolling Recommendations Map

Over 15 miles of new bikeways are proposed in the Active Transportation Plan as shown in Map 20 and Table 7. For details on each bikeway recommendation, see Appendix C: Detailed Recommendations Tables.

Table 7. Biking and Rolling Recommendations Table

<table>
<thead>
<tr>
<th>BIKEWAY CLASS</th>
<th>EXISTING BIKEWAY MILEAGE</th>
<th>PROPOSED BIKEWAY MILEAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared-Use Path (Class I)</td>
<td>2.1 miles</td>
<td>2.5 miles</td>
</tr>
<tr>
<td>Bicycle Lane (Class II)</td>
<td>3.9 miles</td>
<td>0.0 miles</td>
</tr>
<tr>
<td>Buffered Bicycle Lane (Class II)</td>
<td>0.0 miles</td>
<td>0.7 miles</td>
</tr>
<tr>
<td>Bicycle Route (Class III)</td>
<td>1.5 miles</td>
<td>0.0 miles</td>
</tr>
<tr>
<td>Bicycle Boulevard (Class III)</td>
<td>2.5 miles</td>
<td>2.1 miles</td>
</tr>
<tr>
<td>Separated Bikeway (Class IV)</td>
<td>0.7 miles</td>
<td>5.3 miles</td>
</tr>
<tr>
<td>Study</td>
<td>0.0 miles</td>
<td>5.9 miles</td>
</tr>
<tr>
<td>Trail Rehab Project</td>
<td>0.0 miles</td>
<td>0.8 miles</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.7 miles</strong></td>
<td><strong>17.3 miles</strong></td>
</tr>
</tbody>
</table>
Map 20. **Proposed Bikeway Improvements**

**PROPOSED BIKEWAYS**
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIB Bicycle Boulevard
- Class IV Separated Bikeway
- Study

**EXISTING BIKEWAYS**
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIB Bicycle Boulevard
- Class IV Separated Bikeway

**DESTINATIONS + BOUNDARIES**
- Park
- School
- City Hall
- Post Office
- Amtrak Station

*Design features may be adjusted during design development.*
<table>
<thead>
<tr>
<th>PROJECT ID</th>
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<th>MILEAGE</th>
<th>EXISTING BIKEWAY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Bay Trail</td>
<td>Trail Rehab Project</td>
<td>Point Emery</td>
<td>Powell St</td>
<td>0.73</td>
<td>Class I Shared-Use Path</td>
<td>Repave existing Bay Trail to have smoother pavement</td>
</tr>
<tr>
<td>B2</td>
<td>I-80/Ashby Ave Interchange</td>
<td>Overcrossing</td>
<td>Frontage Rd</td>
<td>65th St</td>
<td>0.33</td>
<td>None</td>
<td>Ashby Overcrossing. Project in progress. Location of project on maps is representative.</td>
</tr>
<tr>
<td>B3</td>
<td>La Coste St</td>
<td>Class I Shared-Use Path</td>
<td>65th St</td>
<td>64th St</td>
<td>0.30</td>
<td>None</td>
<td>Short Term: add Bike Boulevard on La Coste Street. Long term: add Shared-Use Path to connect to Ashby Overcrossing. Project located on private property.</td>
</tr>
<tr>
<td>B4</td>
<td>67th Street</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Shellmound St</td>
<td>Emeryville Greenway</td>
<td>0.35</td>
<td>None</td>
<td>Bike Boulevard connection to proposed Ashby Overcrossing.</td>
</tr>
<tr>
<td>B5</td>
<td>Shellmound St</td>
<td>Class IV Separated Bikeway</td>
<td>Shellmound Way</td>
<td>67th St</td>
<td>0.66</td>
<td>Class II Bicycle Lane</td>
<td>Upgrade existing bikeways to Separated Bikeway. Emeryville Loop connection. Roadway width: 32’ to 48’.</td>
</tr>
<tr>
<td>B6</td>
<td>Parallel to Railroad Tracks</td>
<td>Class I Shared-Use Path</td>
<td>67th St</td>
<td>65th St</td>
<td>0.14</td>
<td>None</td>
<td>Add Shared-Use Path on gravel area east of railroad</td>
</tr>
<tr>
<td>B7</td>
<td>65th St</td>
<td>Class IV Separated Bikeway</td>
<td>La Coste St</td>
<td>Shellmound St</td>
<td>0.16</td>
<td>None</td>
<td>Add 2-way Separated Bikeway on north side of 65th Street with one lane of parking removal. Roadway width 40’, existing parking on both sides of street.</td>
</tr>
</tbody>
</table>
### Table 8, continued

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>B8</td>
<td>65th St</td>
<td>Class IV Separated Bikeway</td>
<td>Shellmound St</td>
<td>Emeryville Greenway</td>
<td>0.30</td>
<td>Class IIB</td>
<td>Add Separated Bikeway with transit islands at Bus Stops. Remove one lane of parking. Proposed cross section: 8' Parking, 6' bikeway, 3' buffer, 11' travel lane, 11' travel lane, 3' buffer, 6' bikeway</td>
</tr>
<tr>
<td>B9</td>
<td>Overland Ave</td>
<td>Class IV Separated Bikeway</td>
<td>62nd St</td>
<td>65th St</td>
<td>0.28</td>
<td>Class IIIB</td>
<td>Upgrade existing bike boulevard to Separated Bikeway</td>
</tr>
<tr>
<td>B10</td>
<td>Doyle St</td>
<td>Class IV Separated Bikeway</td>
<td>Ocean Ave</td>
<td>61st St</td>
<td>0.21</td>
<td>Class IV Separated Bikeway</td>
<td>Add raised Separated Bikeway on Doyle Street as part of Emeryville Greenway</td>
</tr>
<tr>
<td>B11</td>
<td>Private property (parallel to I-80 east side)</td>
<td>Class I Shared-Use Path</td>
<td>64th St</td>
<td>Powell St</td>
<td>0.37</td>
<td>None</td>
<td>Add Shared-Use Path parallel to I-80 on east side. Bay Trail Connection.</td>
</tr>
<tr>
<td>B12</td>
<td>62nd St</td>
<td>Class IV Separated Bikeway</td>
<td>Horton St</td>
<td>Hollis St</td>
<td>0.09</td>
<td>Class IIIB</td>
<td>Upgrade existing bike boulevard to Separated Bikeway</td>
</tr>
<tr>
<td>B13</td>
<td>61st St</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Doyle St</td>
<td>City Boundary near Vallejo St</td>
<td>0.10</td>
<td>None</td>
<td>Bike Boulevard connection Doyle Street to planned bikeway in Oakland. Public identified area as a popular destination.</td>
</tr>
<tr>
<td>B14</td>
<td>Horton St</td>
<td>Class IV Separated Bikeway</td>
<td>59th St</td>
<td>62nd St</td>
<td>0.12</td>
<td>Class IV Separated Bikeways (posts)</td>
<td>Add Separated Bikeway. Convert to lanes to one-way northbound on Horton Street from 59th Street to 62nd Street to create dedicated loading/unloading space.</td>
</tr>
</tbody>
</table>
Table 8, continued

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</thead>
<tbody>
<tr>
<td>B15</td>
<td>5850 Shellmound Way New Path</td>
<td>Class I Shared-Use Path</td>
<td>Shellmound St Parking</td>
<td>Christie Ave</td>
<td>0.14</td>
<td>None</td>
<td>5850 Shellmound Way Project. Project located on private property.</td>
</tr>
<tr>
<td>B16</td>
<td>Powell Street/I-80 Undercrossing</td>
<td>Class I Shared-Use Path</td>
<td>Frontage Rd</td>
<td>I-80 On-Ramp / New Path Parallel to I-80</td>
<td>0.07</td>
<td>None</td>
<td>Add Shared-Use Path to north side of Powell Street. Proposed in 2019 BPAC Walking Tour Recommendations. This area is under Caltrans jurisdiction. Caltrans may or may not approve proposed projects.</td>
</tr>
<tr>
<td>B19</td>
<td>Doyle St - 59th St</td>
<td>Class IV Separated Bikeway</td>
<td>61st St</td>
<td>59th St / Emeryville Greenway</td>
<td>0.12</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Upgrade existing bike boulevard to Separated Bikeway</td>
</tr>
<tr>
<td>B20</td>
<td>Doyle St</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>53rd St</td>
<td>59th St</td>
<td>0.38</td>
<td>None</td>
<td>Bike Boulevard proposed in 2012 BPMP, involves private parking lot cut through</td>
</tr>
<tr>
<td>B21</td>
<td>55th St</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Doyle St</td>
<td>Vallejo St</td>
<td>0.09</td>
<td>None</td>
<td>Bike Boulevard connection to planned Oakland Bikeway.</td>
</tr>
<tr>
<td>B22</td>
<td>Shellmound St</td>
<td>Class IV Separated Bikeway</td>
<td>40th St Bridge</td>
<td>Christie Ave</td>
<td>0.44</td>
<td>Class II Bicycle Lane</td>
<td>Upgrade existing Bike Lane to Separated Bikeway. Emeryville Loop connection.</td>
</tr>
<tr>
<td>B23</td>
<td>Sherwin Williams Trail</td>
<td>Class I Shared-Use Path</td>
<td>Sherwin Ave Bridge</td>
<td>Bay Street Bridge</td>
<td>0.29</td>
<td>None</td>
<td>Add Shared-Use Path connection on east side of railroad.</td>
</tr>
</tbody>
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### Table 8, continued

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<thead>
<tr>
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<tbody>
<tr>
<td>B24</td>
<td>53rd St</td>
<td>Class IV Separated Bikeway</td>
<td>Horton St</td>
<td>Hollis St</td>
<td>0.13</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Upgrade existing bike boulevard on 53rd Street to Separated Bikeway as part of the Temescal Greenway</td>
</tr>
<tr>
<td>B25</td>
<td>53rd St</td>
<td>Class I Shared-Use Path</td>
<td>Hollis St</td>
<td>San Pablo Ave</td>
<td>0.32</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Add Shared-Use Path on south side of 53rd Street as part of the Temescal Greenway</td>
</tr>
<tr>
<td>B26</td>
<td>Bay Trail Connection</td>
<td>Class I Shared-Use Path</td>
<td>Powell St Plaza</td>
<td>South Bayfront Bridge</td>
<td>0.33</td>
<td>None</td>
<td>Add Shared-Use Path. Proposed in 2012 BPMP. Will require acquisition of Right-of-Way, included in General Plan. Project located on private property.</td>
</tr>
<tr>
<td>B27</td>
<td>Horton St</td>
<td>Class IV Separated Bikeway</td>
<td>40th St</td>
<td>53rd St</td>
<td>0.43</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Upgrade existing bike boulevard to Separated Bikeway</td>
</tr>
<tr>
<td>B28</td>
<td>Doyle St / 47th St</td>
<td>Class IV Separated Bikeway</td>
<td>45th St</td>
<td>Community Pool</td>
<td>0.16</td>
<td>None</td>
<td>Two-way Separated Bikeway connection to Community Pool’</td>
</tr>
<tr>
<td>B29</td>
<td>47th St</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Community Pool</td>
<td>Salem St</td>
<td>0.16</td>
<td>None</td>
<td>Bike Boulevard connection to Community Pool</td>
</tr>
<tr>
<td>B30</td>
<td>New Path</td>
<td>Class I Shared-Use Path</td>
<td>45th St</td>
<td>47th St</td>
<td>0.08</td>
<td>None</td>
<td>Add Shared-Use Path. Proposed in 2012 BPMP.</td>
</tr>
</tbody>
</table>
Table 8, continued

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</tr>
</thead>
<tbody>
<tr>
<td>B32</td>
<td>Adeline St</td>
<td>Class IIIB</td>
<td>36th St</td>
<td>47th St</td>
<td>0.68</td>
<td>Class II Bicycle Lane</td>
<td>5' bike lane with 2'-3' buffer, consider 5 minute loading zone for 2-3 car lengths around Pizza Amigos on the east side of Adeline opposite 47th St.</td>
</tr>
<tr>
<td>B33</td>
<td>41st St</td>
<td>Class IV</td>
<td>San Pablo Ave</td>
<td>Adeline St</td>
<td>0.13</td>
<td>None</td>
<td>Two-way Separated Bikeway on 41st St from San Pablo Avenue to Adeline Street.</td>
</tr>
<tr>
<td>B34</td>
<td>Park Ave</td>
<td>Class IIIB</td>
<td>Halleck St</td>
<td>Hollis St</td>
<td>0.25</td>
<td>None</td>
<td>Bike Boulevard connection to Park Avenue Multimodal Study. BPAC 2019.</td>
</tr>
<tr>
<td>B35</td>
<td>Beach St - Halleck St</td>
<td>Class IIIB</td>
<td>Sherwin Ave</td>
<td>34th St</td>
<td>0.52</td>
<td>None</td>
<td>Bike Boulevard connection from Mandella Parkway to 40th Street / Shellmound Street. BPAC 2019.</td>
</tr>
<tr>
<td>B38</td>
<td>Emery St</td>
<td>Class IIIB</td>
<td>Park Ave</td>
<td>40th St</td>
<td>0.09</td>
<td>Class III Bicycle Route</td>
<td>Bike Boulevard through connection parallel to San Pablo Avenue.</td>
</tr>
<tr>
<td>B40</td>
<td>Stanford Ave</td>
<td>Trail Rehab Project</td>
<td>Horton St</td>
<td>Hollis St</td>
<td>0.07</td>
<td>Class II Bicycle Lane</td>
<td>Widen existing trail and make more comfortable for bikes</td>
</tr>
<tr>
<td>B42</td>
<td>Ohlone Way</td>
<td>Class I Shared-Use Path</td>
<td>Shellmound St</td>
<td>South Bayfront Bridge</td>
<td>0.06</td>
<td>None</td>
<td>Shared-Use path connection on Ohlone Way from Shellmound Street to South Bayfront Bridge. Approved as part of grocery store project. Project located on private property.</td>
</tr>
</tbody>
</table>
### Table 8, continued

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<tbody>
<tr>
<td>B43</td>
<td>5850 Shellmound Way</td>
<td>Class I Shared-Use Path</td>
<td>Shellmound St</td>
<td>Existing Bridge</td>
<td>0.05</td>
<td>None</td>
<td>5850 Shellmound Way Project</td>
</tr>
<tr>
<td></td>
<td>New Path Connection to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B44</td>
<td>63rd St</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Doyle St</td>
<td>Vallejo St</td>
<td>0.10</td>
<td>None</td>
<td>Bike Boulevard connection to planned Oakland Bikeway.</td>
</tr>
<tr>
<td>B44</td>
<td>65th St</td>
<td>Class IIIB Bicycle Boulevard</td>
<td>Emeryville</td>
<td>City Boundary near Vallejo St</td>
<td>0.07</td>
<td>None</td>
<td>Bike Boulevard connection to existing bikeway in Berkeley. Public identified route as in need of improvement</td>
</tr>
</tbody>
</table>
Bikeway Studies

**BAY TRAIL PEDESTRIAN PATH**

**Extent:** Bay Trail Pedestrian Path from Frontage Rd to Davenport Mini Park

**Objective:** The Bay Trail spur circumnavigating the Emeryville Marina is a popular destination for people biking, walking, and rolling. Due to narrow path widths and large volumes of trail users, the active transportation plan considers this area a key location for an upgrade to a Shared-Use Path. A study is proposed to better understand the feasibility of widening the trail to accommodate users of biking, walking, and rolling modes.

**Study:** Widen and convert existing pedestrian paths on the peninsula to a Shared-Use Path. The estimated cost to conduct this study is $50,000.

*Study proposed to widen the pedestrian path on the Emeryville Marina.*
**CHRISTIE AVENUE STUDY**

**Extent:** Christie Avenue from Powell Street to 65th Street

**Objective:** Christie Avenue is a key north-south connection through Emeryville with a number of popular shopping, retail, hotel, and restaurant destinations along it. The addition of a separated bikeway in this location would greatly enhance the all ages and abilities network, and improve biking, walking, and rolling access to regional shopping destinations. Due to width restrictions and a necessary removal of one lane of street parking, the active transportation plan proposes a study to determine the feasibility of a separated bikeway and the potential trade-offs. The segment of Christie Avenue between Shellmound Way and Powell Street is already included in the Emeryville Loop project and will be converted to a separated bikeway in the future. By extending this separated bikeway project to reach northern Emeryville, the City will add another convenient, comfortable, and safe bikeway to the existing network.

**Study:** Add Class IV on Christie Ave, remove one lane of parking. The estimated cost to conduct this study is $85,000.
**PARK AVENUE MULTIMODAL CORRIDOR STUDY**

**Extent:** Park Avenue from Hollis Street to San Pablo Avenue

**Objective:** Park Avenue is situated one block north and parallel to 40th Street. Hosting destinations such as the Emeryville City Hall and Pixar Animation Studios, Park Avenue is a prime location for a multimodal corridor that provides connected and comfortable space for all modes of transportation. The active transportation plan proposes improvements to the biking, walking, and rolling network. Due to trade-offs such as parking removal and realignment, as well as sidewalk extensions into the current roadway, a study is proposed to better understand project details and potential concepts.

**Study:** Add one-way separated bikeways on both sides of Park Avenue. Convert existing angled parking on the north side of the street to parallel parking. Widen sidewalk on south side of street and create more pedestrian friendly space. The estimated cost to conduct this study is $150,000.

*Converting the angled parking on Park Avenue to parallel parking will create space for biking, walking, and rolling improvements.*
POWELL STREET STUDY

Objective: Powell Street is the City’s only existing east-west access point to the marina and shoreline on the west side of I-80. As such, the addition of a bikeway facility that is comfortable for all ages and abilities is essential. Characterized by high traffic volumes and multiple lanes of traffic in each direction, the project team proposed a study to better understand the feasibility and trade-offs of adding a separated bikeway.

Segment A Extent: Powell Street from Commodore Dr to Frontage Road

Study: Two-way separated bikeway on the south side of Powell Street, 5’ bikeway lanes and 4’ buffer, reduce median, and narrow travel lanes to 11’. Alternative: One-way separated bikeway on each side of Powell Street.

Segment B Extent: Powell Street from Frontage Road to Christie Avenue

Study: Two-way separated bikeway on the south side of Powell Street. Alternative 1: One-way separated bikeway on each side of Powell Street. Alternative 2: Consider upgrading existing shared-use path to separate people walking and rolling.

Segment C Extent: Powell Street from Christie Avenue to Hollis Street

Study: Two-way separated bikeway on the south side of Powell Street, 5’ bikeway lanes and 5’ buffer, remove one travel lane. Alternative: One-way separated bikeway on each side of Powell Street.

Segment D Extent: Powell Street from Hollis Street to Vallejo Street

Study: Two-way separated bikeway on the south side of Powell Street, 5’ lanes and 6’ buffer, remove one travel lane. Study requires traffic signal rephasing for bike signal. Alternative: One-way separated bikeway on each side of the street.

The estimated cost to conduct the Powell Street study is $400,000.
STANFORD AVENUE STUDY

Objective: As a key connection to the surrounding region east of Emeryville, Stanford Avenue is a prime candidate for a bikeway that is comfortable for all ages and abilities. Building from the shared-use path proposed in the 2019 Let’s Bike Oakland Plan on Stanford Avenue from the Emeryville Border to Adeline Street in Berkeley, the active transportation plan recommends a separated bikeway.

Extent: Stanford Avenue from Horton Street to San Pablo Avenue

Study: Add contra-flow separated bikeway on Stanford to connect users from planned shared-use path on Stanford Avenue in Oakland to the Doyle Slow Street and Bayfront Bridge. Eliminate on-street parking. Add a bicycle boulevard to the eastbound travel lane. Consider implementing speed humps.

Additional Study Segments:

Extent: Beaudry Street from Powell Street to Stanford Avenue

Study: Add bicycle boulevard on Beaudry St. Convert to one-way southbound and extend sidewalk into street. Alternative: Create a car-free space (Village Green) from Stanford to the park limit on the north side.

Extent: Doyle Street from Powell Street to Stanford Avenue

Study: Convert Doyle Street from Powell Street to Stanford Avenue to a one-way street in the northbound direction. Repurpose the removed travel lane to be a widened sidewalk and park extension for people biking, walking, and rolling.

The estimated cost to conduct the Stanford Avenue Study is $250,000.
Pedestrian Network Recommendations

Issues that make it challenging to walk as well as pedestrian improvement opportunities identified in the data needs analysis or came up frequently in conversations with community members have been highlighted as focus areas. These areas include a suite of recommendations and may align with work already underway. The pedestrian improvement focus areas include:

- Crossing Busy Streets
  - San Pablo Avenue
  - Powell Street
  - 40th Street
- Pedestrian Priority Zones

CROSSING BUSY STREETS

Throughout the engagement process, arterial roadways were identified by residents and community members as the most common barrier to walking in Emeryville. Using this lens, the project team focused on infrastructure recommendations that would improve the safety and pedestrian experiences around Emeryville’s busiest roadways including Powell Street, 40th Street, and San Pablo Avenue.

The projects that follow are recommended to improve the safety and comfort for people walking along and across busy streets.
PEDESTRIAN IMPROVEMENTS: PEDESTRIAN FOCUS AREAS

SAN PABLO AVENUE PEDESTRIAN IMPROVEMENTS

- Major Intersection Upgrades on San Pablo Avenue at the intersections of 53rd Street, 45th Street, 43rd Street, Park Avenue, and 40th Street

- New Midblock Crossing on San Pablo Avenue 200 feet south of 40th Street near Yerba Buena Avenue

POWELL STREET PEDESTRIAN IMPROVEMENTS

- Major Intersection Upgrades on Powell Street at the intersections of Frontage Road, Christie Avenue, and Hollis Street

- Improved Sidewalk on Powell Street from Peladeau Street to Hollis Street and on Shellmound Street underneath the Powell Street bridge

- New Sidewalk on Powell Street from Christie Avenue to Shellmound Street

- Shared-Use Path (Class I) on the north side of Powell Street from Frontage Road to the I-80 eastbound on-ramp

* A new walkway is proposed along Powell Street to improve the current walking connection.*
PEDESTRIAN IMPROVEMENTS: PEDESTRIAN FOCUS AREAS

40TH STREET PEDESTRIAN IMPROVEMENTS

- Major Intersection Upgrades on 40th Street at the intersections of Hubbard Street, Haven Street, Emery Street, San Pablo Avenue, and Adeline Street
- Shared-Use Path (Class I) on the north side of 40th Street between Hubbard Street and Halleck Street

PEDESTRIAN PRIORITY ZONE

In addition to improving the pedestrian experiences when crossing busy streets, the project team also focused on walking network improvements in the Pedestrian Priority Zones identified by the City’s General Plan. Walking network improvements in these areas were identified based on the location of utility obstructions and narrow sidewalk widths throughout the zones. Infrastructure improvements such as crossing upgrades and improved existing sidewalk are recommended in these areas.
Pedestrian Toolbox

The following list describes the linear pedestrian recommendations made to improve the walking comfort and connectivity in Emeryville. Using public input and findings from the needs assessment, the project team tailored each recommendation to the specific areas that they address. Areas surrounding commercial areas, arterial roadway crossings, and walkways with identified barriers guided the recommendation development process.

New Sidewalks / Pedestrian Paths
Sidewalks and pedestrian paths are designated lanes for people walking. They provide space to travel within the public right-of-way that is separated from moving vehicles. They can be directly adjacent to the roadway, or have physical separation in the form of plant boxes or grass buffers.

Improve Existing Sidewalks
Good sidewalks have minimal barriers to people walking on them. The project team suggests improving areas in Emeryville where the sidewalk is narrow or contains barriers.
Shared-Use Paths (Class I)
As described in the bikeway toolbox section of this plan, shared-use paths are completely separated from motor vehicle traffic and are shared by people biking and rolling. Shared-use paths are an essential piece of the pedestrian network as they often provide access to parks and recreation.

SPOT IMPROVEMENTS TOOLBOX
The following list describes the types of spot improvement categories recommended in the plan. Further details on the specific improvement types will be unique to each location.

**New Crossing**
A proposed new crossing improvement where no crossing infrastructure currently exists.

**Upgraded Crossing**
A proposed improvement to an existing marked crossing to make it safer, easier, or more comfortable to cross.

**Major Intersection Upgrade**
A set of multiple improvements to the intersection that may consist of any of the items listed below in the visual glossary or other improvements.

**Traffic Signal**
The addition of a traffic signal to an intersection gives people walking an opportunity to cross the street when cars are stopped.

**Undercrossing Improvement**
The undercrossing improvement recommended in this plan seeks to improve biking, walking, and rolling safety in and around the Powell Street/I-80 Undercrossing. Proposed infrastructure includes new transit stops, transit only on-ramps to I-80, a realignment and widening of the Bay Trail, and improved crossing safety for people biking and walking.

**Signage**
Signage improves the pedestrian network by educating people about where they are.
Other Improvements

**Crosswalk**: Marked crosswalks indicate optimal or preferred locations for pedestrians to cross and help designate right-of-way for motorists to yield to pedestrians. Pedestrians are sensitive to out-of-the-way travel, and reasonable accommodation should be made to make crossings both convenient and safe at locations with adequate visibility. Source: FHWA.

**Rectangular Rapid Flashing Beacon (RRFB)**: RRFBs are pedestrian-actuated conspicuity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. Source: FHWA.

**Pedestrian Hybrid Beacon (PHB)**: PHBs can warn and control traffic at unsignalized locations and assist pedestrians in crossing a street or highway at a marked crosswalk. Unlike a traffic signal, the PHB rests in dark until a pedestrian activates it via a pushbutton or other form of detection. Source: FHWA.
Curb Extensions: Curb extensions—also known as bulb-outs or neckdowns—extend the sidewalk or curb line out into the parking lane and reduce the effective street width. Source: FHWA.

Leading Pedestrian Interval (LPI): LPIs can be programmed into traffic signals to minimize conflicts between pedestrians crossing a roadway and left- or right-turning vehicles. LPIs give the pedestrian the WALK signal 3-7 seconds before the motorists are allowed to proceed through the intersection, which makes them more visible. Source: FHWA.

Median Refuge Island: A median refuge island, or crossing island, is a median with a refuge area that is intended to help protect pedestrians crossing a multilane road. Crossing islands should be considered as a supplement to the crosswalk. The presence of a pedestrian refuge island at a midblock location or intersection allows pedestrians to focus on one direction of traffic at a time as they cross and provides space to wait for an adequate gap in oncoming traffic before finishing the second phase of the crossing. Source: FHWA.
**Signal Timing Adjustments:** In general, shorter cycle lengths (ideally less than 90 seconds) and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, fixed-time signal operation usually works best because it provides an automatic pedestrian phase. Source: FHWA.

**No Right on Red:** Prohibiting right turns on red should be considered where exclusive pedestrian phases or high pedestrian volumes are present. Source: FHWA.
This plan recommends 2.5 miles of Shared-Use Paths, 2.5 miles of new or improved sidewalk, and 32 spot improvements as shown in Map 21, Map 22, and Table 9. For details on each linear pedestrian recommendation, see Appendix C: Detailed Recommendations Tables.

Table 9. **Walking Network Improvements**

<table>
<thead>
<tr>
<th>PROPOSED</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared-Use Path (Class I)</td>
<td>2.5 miles</td>
</tr>
<tr>
<td>New Sidewalk</td>
<td>1.1 miles</td>
</tr>
<tr>
<td>Improved Sidewalk</td>
<td>1.4 miles</td>
</tr>
<tr>
<td>Major Intersection Upgrade</td>
<td>17</td>
</tr>
<tr>
<td>Upgrade Crossing</td>
<td>4</td>
</tr>
<tr>
<td>New Crossing</td>
<td>4</td>
</tr>
<tr>
<td>Undercrossing Improvement</td>
<td>1</td>
</tr>
<tr>
<td>Traffic Signal</td>
<td>2</td>
</tr>
<tr>
<td>Signage</td>
<td>4</td>
</tr>
</tbody>
</table>

Comfortable pedestrian walkways feature amenities such as benches and greenspace.
PROPOSED PEDESTRIAN IMPROVEMENTS

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Proposed Pedestrian Improvements
- New Sidewalk / Pedestrian Path
- Improve Existing Sidewalk
- Class I Shared-Use Path
- Study

*Design features may be adjusted during design development.

Existing Pedestrian Paths
- Class I Shared-Use Path
- Bay Trail (Pedestrian Only)

Destinations + Boundaries
- Park
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- Park
- City Boundary

Map 21. Proposed Pedestrian Improvements

Data Source: City of Emeryville. May 2022.

111 | 4: PROJECTS, PROGRAMS, & POLICIES
### Table 10. Pedestrian Network Recommendations

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>STREET</th>
<th>IMPROVEMENT TYPE</th>
<th>START</th>
<th>END</th>
<th>SIDE OF STREET</th>
<th>NOTES</th>
<th>MILEAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>67th St</td>
<td>New Sidewalk</td>
<td>Shellmound St</td>
<td>Hollis St</td>
<td>Both</td>
<td>Add sidewalk on both sides of street.</td>
<td>0.17</td>
</tr>
<tr>
<td>P2</td>
<td>Peabody Lane</td>
<td>Improve Existing Sidewalk</td>
<td>65th St</td>
<td>Vallejo St</td>
<td>Both</td>
<td>Alley difficult for pedestrians. Add stop sign, red curb, mirror for visibility, and lighting.</td>
<td>0.06</td>
</tr>
<tr>
<td>P3</td>
<td>64th St</td>
<td>Improve Existing Sidewalk</td>
<td>260ft east of Hollis St</td>
<td>Doyle St</td>
<td>South</td>
<td>Improve existing sidewalk, make walking space wider and smoother.</td>
<td>0.05</td>
</tr>
<tr>
<td>P4</td>
<td>Overland Ave</td>
<td>New Sidewalk</td>
<td>150’ south of 63rd St</td>
<td>64th St</td>
<td>East</td>
<td>Extend existing sidewalk on east side of street to reach 64th St</td>
<td>0.08</td>
</tr>
<tr>
<td>P5</td>
<td>61st St</td>
<td>Improve Existing Sidewalk</td>
<td>Hollis St</td>
<td>Doyle St</td>
<td>North</td>
<td>Widen existing sidewalk</td>
<td>0.10</td>
</tr>
<tr>
<td>P6</td>
<td>Christie Ave</td>
<td>Improve Existing Sidewalk</td>
<td>59th St</td>
<td>Shellmound Way</td>
<td>Both</td>
<td>Improve existing sidewalk by widening walking path and/or removing obstructions such as signs and trash cans.</td>
<td>0.08</td>
</tr>
<tr>
<td>P9</td>
<td>Powell St</td>
<td>Improve Existing Sidewalk</td>
<td>Peladeau St</td>
<td>Hollis St</td>
<td>South</td>
<td>Sidewalk or a more direct/accessible pedestrian path was requested on Powell between Christie and Hollis as part of the walking tour.</td>
<td>0.05</td>
</tr>
<tr>
<td>P10</td>
<td>Chiron Way</td>
<td>New Sidewalk</td>
<td>Stanford Ave</td>
<td>53rd St</td>
<td>Both</td>
<td>Key Green Street in general plan. Remove gates and reconstruct with greenery</td>
<td>0.16</td>
</tr>
<tr>
<td>PROJECT ID</td>
<td>STREET</td>
<td>IMPROVEMENT TYPE</td>
<td>START</td>
<td>END</td>
<td>SIDE OF STREET</td>
<td>NOTES</td>
<td>MILEAGE</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>--------</td>
<td>--------</td>
<td>----------------</td>
<td>-------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>P11</td>
<td>Doyle St</td>
<td>Improve Existing Sidewalk</td>
<td>47th St</td>
<td>45th St</td>
<td>East</td>
<td>Widen existing sidewalk</td>
<td>0.10</td>
</tr>
<tr>
<td>P12</td>
<td>45th St</td>
<td>Improve Existing Sidewalk</td>
<td>Horton St</td>
<td>San Pablo Ave</td>
<td>Both</td>
<td>Corridor is lined with trees and has potential to be vibrant pedestrian / greenway space. Improve existing sidewalk space by widening or working with existing tree barriers.</td>
<td>0.44</td>
</tr>
<tr>
<td>P13</td>
<td>Halleck St</td>
<td>New Sidewalk</td>
<td>Sherwin Ave</td>
<td>150ft North of Park Ave</td>
<td>West</td>
<td>New sidewalk on west side of Halleck St north of Pelco</td>
<td>0.05</td>
</tr>
<tr>
<td>P14</td>
<td>Hubbard St</td>
<td>New Sidewalk</td>
<td>Sherwin Ave</td>
<td>Park Ave</td>
<td>East</td>
<td>Add sidewalk on east side of street.</td>
<td>0.08</td>
</tr>
<tr>
<td>P15</td>
<td>Hubbard St</td>
<td>New Sidewalk</td>
<td>Park Ave</td>
<td>40th St</td>
<td>Both</td>
<td>Add New Sidewalk on both sides of Hubbard</td>
<td>0.09</td>
</tr>
</tbody>
</table>
Map 22. Proposed Spot Improvements

SPOT IMPROVEMENTS

EMERYVILLE ACTIVE TRANSPORTATION PLAN

Proposed Spots
- New Crossing
- Upgrade Crossing
- Major Intersection Upgrade
- Traffic Signal
- Undercrossing Improvement
- Signage

*Design features may be adjusted during design development.

Proposed Studies
- Study

Existing Infrastructure
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway
- Bay Trail (Pedestrian Only)

Destinations + Boundaries
- Park
- School
- City Hall
- Post Office
- Amtrak Station
- Railroad Track
- Park
- City Boundary

Data Source: City of Emeryville. May 2022.
Table 11. **Spot Improvement Recommendations**

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>CROSS STREET A</th>
<th>CROSS STREET B</th>
<th>IMPROVEMENT TYPE</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP1</td>
<td>Shellmound St</td>
<td>67th St</td>
<td>Upgrade Crossing</td>
<td>Add a crosswalk on southern leg of intersection to connect people walking north on east side to the existing sidewalk (sidewalk ends / is missing north of 67th on east side of street)</td>
</tr>
<tr>
<td>SP2</td>
<td>Hollis St</td>
<td>67th St</td>
<td>Traffic Signal</td>
<td>Quiet Zone Traffic Signal in 2022</td>
</tr>
<tr>
<td>SP3</td>
<td>Emeryville Greenway</td>
<td>67th St</td>
<td>Signage</td>
<td>Add street name sign so Greenway users know which street they are crossing</td>
</tr>
<tr>
<td>SP4</td>
<td>Emeryville Greenway</td>
<td>66th St</td>
<td>Signage</td>
<td>Add street name sign so Greenway users know which street they are crossing</td>
</tr>
<tr>
<td>SP5</td>
<td>Emeryville Greenway</td>
<td>65th St</td>
<td>Signage</td>
<td>Add street name sign so Greenway users know which street they are crossing</td>
</tr>
<tr>
<td>SP7</td>
<td>Hollis St</td>
<td>64th St</td>
<td>Major Intersection Upgrade</td>
<td>Consider LPI and two-turn bike boxes at this location</td>
</tr>
<tr>
<td>SP8</td>
<td>63rd St</td>
<td>Hollis St</td>
<td>Traffic Signal</td>
<td>Install signal, including crosswalks and curb extensions</td>
</tr>
<tr>
<td>SP9</td>
<td>Christie Ave</td>
<td>59th St</td>
<td>Major Intersection Upgrade</td>
<td>Add crosswalks on west, north, and east legs of intersection. Consider signal warrant study.</td>
</tr>
<tr>
<td>SP10</td>
<td>Emeryville Greenway</td>
<td>59th St</td>
<td>New Crossing</td>
<td>Enhanced crossing, midblock</td>
</tr>
<tr>
<td>SP11</td>
<td>Beaudry St</td>
<td>59th St</td>
<td>Major Intersection Upgrade</td>
<td>Install stop sign on 59th and Beaudry St</td>
</tr>
<tr>
<td>SP12</td>
<td>Hollis St</td>
<td>Powell St</td>
<td>Major Intersection Upgrade</td>
<td>Raise crosswalk and eliminate slip lane, public feedback barrier to walking and biking and route in need of improvement</td>
</tr>
<tr>
<td>SP13</td>
<td>Anchor Drive</td>
<td>Powell St</td>
<td>Upgrade Crossing</td>
<td>Enhanced crossing RRFB to transition to Class I on other side of Powell St.</td>
</tr>
</tbody>
</table>
### Table 11, continued

<table>
<thead>
<tr>
<th>PROJECT ID</th>
<th>CROSS STREET A</th>
<th>CROSS STREET B</th>
<th>IMPROVEMENT TYPE</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP14</td>
<td>I-80</td>
<td>Powell St</td>
<td>Undercrossing Improvement</td>
<td>MTC I-80/Powell Street Interchange Transit Access Improvements. Install curb extensions on west side of Powell St/Frontage Rd, 10ft sidewalk on north side of Powell St, Realign Bay Trail for Mode Separation, new bus stops</td>
</tr>
<tr>
<td>SP17</td>
<td>Shellmound St</td>
<td>Brunswig Lane</td>
<td>Signage</td>
<td>Add a &quot;Cross at Crosswalk&quot; sign, work with property manager to add signage.</td>
</tr>
<tr>
<td>SP18</td>
<td>Horton St</td>
<td>Stanford Ave</td>
<td>Major Intersection Upgrade</td>
<td>BPAC 2019 intersection improvement, public identified barriers nearby on Horton</td>
</tr>
<tr>
<td>SP19</td>
<td>Hollis St</td>
<td>Stanford Ave</td>
<td>Major Intersection Upgrade</td>
<td>Upgrade crosswalks, make protected intersection with curb extensions, bike boxes.</td>
</tr>
<tr>
<td>SP20</td>
<td>Spur Alley</td>
<td>53rd St</td>
<td>New Crossing</td>
<td>Midblock crossing, install RRFB</td>
</tr>
<tr>
<td>SP22</td>
<td>Shellmound St</td>
<td>F-bus Stop (Bay Street)</td>
<td>Upgrade Crossing</td>
<td>Install RRFB at this location.</td>
</tr>
<tr>
<td>SP23</td>
<td>Adeline St</td>
<td>47th St</td>
<td>Upgrade Crossing</td>
<td>Lit crosswalk, consider high-visibility crosswalk</td>
</tr>
</tbody>
</table>
Pedestrian Network and Spot Improvement Studies

**POWELL STREET/I-80 UNDERCROSSING**

**Location:** Intersection of Powell Street and I-80

**Objective:** The Powell Street Undercrossing provides a gateway to the regional Bay Trail, Emeryville Marina, and shoreline parks on the west side of I-80. Under existing conditions, the undercrossing hosts a shared-use path on the south side of the street with the nearest pedestrian crossings located 250 feet to the west and 450 feet to the east of the undercrossing. Two studies are proposed in the active transportation plan to better understand how safety improvements for pedestrians to the intersections on each side of the undercrossing will affect traffic.

- **West Frontage Road Study:** Study removing the right-turn slip lane and retiming the signal cycle to match the I-80 eastbound ramp intersection in order to create a safer crossing experience for people walking.

- **Eastbound On-Ramp Study:** Study phase-separating the north crosswalk movement from the westbound right turns and programming the north crosswalk walk phase during the northbound signal phase. Study retiming the signal cycle to match the West Frontage Road intersection and reconsider coordinating signals within the Shellmound Loop.

*Improvements to the Powell Street Undercrossing will provide better protection for people walking.*
PARK AVENUE MULTIMODAL CORRIDOR STUDY

Extent: Park Avenue from Hollis Street to San Pablo Avenue

Objective: Park Avenue is situated one block north and parallel to 40th Street. Hosting destinations such as the Emeryville City Hall and Pixar Animation Studios, Park Avenue is a prime location for a multimodal corridor that provides connected and comfortable space for all modes of transportation. The active transportation plan proposes improvements to the biking, walking, and rolling network. Due to trade-offs such as parking removal and realignment, as well as sidewalk extensions into the current roadway, a study is proposed to better understand project details and potential concepts.

Study: Add one-way separated bikeways on both sides of Park Avenue. Convert existing angled parking on the north side of the street to parallel parking. Widen sidewalk on south side of street and create more pedestrian friendly space.

Angled parking on Park Avenue can be converted to parallel parking to make room for a separated bikeway and widened sidewalk.
Wayfinding Recommendations

To support easy navigation for pedestrians and bicyclists, cities are developing and installing comprehensive wayfinding or directional signage. Signs may also include “distance to” information, which displays mileage to community destinations. A citywide wayfinding system can raise awareness and improve access for residents and visitors to community assets such as ECCL, City Hall, the Bay Trail, the Senior Center, and parks.

The design of wayfinding signs can vary depending on the City. Guide signs may follow CA MUTCD standards, which use additional plaques that display destinations and mileage. The City would mount these plaques under existing bike route and lane signs. Alternatively, the City may decide to design wayfinding signs that exhibit Emeryville’s unique style and commitment to public art, similar to the utility box public art designs. These signs display the community’s identity and support of bicyclists.

Emeryville has many non-square bikeway intersections along San Pablo Avenue that can be confusing to navigate on a bicycle. Bicyclists often have to navigate a jog in an intersection to continue the same direction of travel. Wayfinding signs installed at these intersections will help in these situations, in addition to directing bicyclists to local and regional attractions. Crossing under Interstate 80 and across the railroad tracks can also lead to confusion for people walking, biking, or rolling.
Development of a wayfinding signage plan requires interdepartmental and stakeholder collaboration to determine sign display design, the frequency that signs should be installed and the destinations to be displayed on each sign. Staff, consultants or volunteers with significant bicycling and walking experience and knowledge of the local network should be involved to ensure local needs are met.

The wayfinding program could take inspiration from the City’s unique and playful utility box artwork.
Programmatic Recommendations

Pedestrian and bicycle programs, such as education and encouragement programs, are essential in increasing the desirability and safety of walking, biking and rolling. Programs help build the “human infrastructure” of a walking and bicycling culture, and encourage more people to walk, bike, or roll. Many programs can be categorized according to the following “E’s”:

EQUITY RECOMMENDATIONS

The equity recommendations below encompass actions that could have been listed under many of the other program subheadings. However, bringing them together under the framework of equity ensures that the plan reaches all ages and abilities by including communities of various ethnicities, addressing the needs of all people, and reaching low-income communities.

ENCOURAGEMENT RECOMMENDATIONS

Encouragement programs provide incentives and support to help people leave their car at home and try walking or bicycling instead. Bicycle encouragement programs, in particular, target “interested but concerned” people who would like to ride a bike but who may not be confident in their skills or in their interactions with people driving.

EDUCATION RECOMMENDATIONS

Education programs are designed to improve safety and awareness. They can include in-classroom or after school programs that teach students how to safely cross the street or bicycle in the road. They may also include brochures, posters, or other information aimed at people walking, bicycling, or driving.

EVALUATION RECOMMENDATIONS

Evaluation programs are an important component of any engineering or programmatic investment. They help the City measure its success at meeting the goals of this Plan and to identify adjustments that may be necessary.

A note on enforcement: Enforcement programs have historically been part of Active Transportation Plan recommendations. However, in many instances, police enforcement makes
people feel less safe walking, bicycling, and rolling, particularly for people of color. As a result, this Plan does not recommend general enforcement programs. Instead, the Plan seeks to use engineering to solve many of the common challenges historically addressed through enforcement, such as speeding and bike lane encroachment.

**EQUITY PROGRAM RECOMMENDATIONS**

**Targeted Outreach and Programs**
Emeryville is committed to supporting its diverse residents, underserved communities, and populations that typically don’t walk, bike, or roll. Traditional methods of encouraging active transportation may not reach these groups (e.g., English outreach to non-English speakers), or may not address the unique needs of these groups (e.g., women are more likely to need to travel with a child). A focused effort to engage with these populations will help the City encourage biking, walking, and rolling for all residents.

**Recommendation**: Advertise and promote all programs in languages used by Emeryville residents, such as English, Spanish, Chinese, Thai, Amharic, Hindi, and Farsi. Offer programs specifically for women, families, non-English speaking communities, and other specific demographic groups.

**Bicycle Accessories Giveaway Program**
A barrier to safe bicycling is often the lack of necessary equipment (e.g., helmet, bike lights, locks, reflective attire, etc.) The City can pursue a program to provide necessary gear at no or reduced costs to low-income residents. For example, Bay Wheels has a Bike Share for All program that provides low-cost bike share memberships to people who qualify for CalFresh, SFMTA Lifeline Pass, or PG&E CARE utility discount.
**Recommendation:** Subsidize or provide free bicycle equipment to residents who qualify for CalFresh or PG&E CARE utility discount. The City could consider working with local bike shops to implement this program.

**Bicycle/Pedestrian Infrastructure Equity Program**

People biking, walking, and rolling may be inequitably accommodated in the provision of infrastructure improvement such as lighting, bathrooms, water fountains, bus stops, and sidewalk improvements.

**Recommendation:** Revise the Capital Improvement Program per recommendations from the plan with review of equitable distribution of infrastructure supporting additional nontraditional cyclists and pedestrians.

**ENCOURAGEMENT PROGRAM RECOMMENDATIONS**

**Expanded Bike Share**

Emeryville already participates in Lyft’s Bay Wheels, the Bay Area’s bike share system. There are a number of stations throughout the City that allow people to take point-to-point trips within the City and to connecting stations in Berkeley and Oakland. While Lyft has indicated that East Bay bike share is unlikely to expand further, the City should look for opportunities to expand bike share to additional locations in the City.

**Recommendation:** The City should look for opportunities to expand bike share to additional locations, including to areas of the City south of Powell Street and west of the railroad tracks.

**Car-Free Street Events**

Car-free street events promote health by creating a safe and attractive space for physical activity and social contact and are cost-effective compared to the cost of building new parks for the same purpose. These events have many names: Sunday Parkways, Ciclovías, Summer Streets, and Sunday Streets. Car-free street events temporarily close streets to motor vehicles and open them to the public for walking, bicycling, dancing, hula hooping, roller-skating, or other activities. They have been very successful internationally and are rapidly becoming popular in the United States. Events can be regularly scheduled or one-time occasions and are generally very popular and well attended.
**Recommendation**: The City should integrate Conditions of Approval for site development to implement Employer-Based Encouragement Programs / Bicycle Friendly Business Programs. The City should support a regular, recurring car-free street event. While specific locations and times for these events can be developed through community outreach and support, one possibility for the City of Emeryville would be to combine a car-free street event with its Art in Public Places program. Possible locations include Park Avenue, Doyle Street/Greenway, Hollis Street, and Horton Street. Measure B funds could be used for general outreach and marketing.

**Bicycle Friendly Community**

The League of American Bicyclists recognizes communities that improve bicycling conditions through education, encouragement, enforcement, and evaluation programs. Communities can achieve diamond, platinum, gold, silver, or bronze status, or an honorary mention. Bicycle-friendliness can indicate that a community is healthy and vibrant. Like good schools and attractive downtowns, bicycle-friendliness can increase property values, spur business growth, and increase tourism. Emeryville is currently a Silver-level Bicycle Friendly Community.

**Recommendation**: This Plan recommends the City reapply for an elevated Bicycle Friendly Community status after implementation of the priority projects and many of the recommended programs identified in this Plan. In Emeryville’s last report card, the League of American Bicyclists recommended Emeryville focus on expanding its bicycle network, updating its bicycle plan, offer targeted education to specific demographic groups who are underrepresented in the bicycling community, increase employer-based encouragement program, create a data-driven traffic enforcement program, and support bicycle integration with transit.
Employer-Based Encouragement Programs / Bicycle Friendly Business Programs

Emeryville’s large employment base means that working with employers may be an effective means of achieving the goals of this Plan. Walking, biking and rolling to work has many benefits, including reducing the stress associated with driving in rush-hour traffic, reducing health costs by improving worker health, and helping businesses market their environmental sustainability.

Though the City cannot host these programs, it can work with or provide information to employers about commuting by foot or by bicycle. Employers can host bicycle classes and participate in Bike to Work Day, like the City of Emeryville does for its employees. Employers can also set up a National Bike Challenge (nationalbikechallenge.org) account so that employees can log their hours and set up an internal contest for who logs the most hours.

Emeryville could also consider starting a Bicycle Friendly Business Program, which recognizes businesses who make it easy and convenient for both employees and customers to arrive by walking, biking or rolling. This requires businesses to implement different strategies to accommodate the different needs of customers and employees.

Recommendation: The City should continue to work with or provide information to employers about alternative commute options, with the intention of reducing the number of Emeryville workers to drive alone to work, and should establish a Bicycle Friendly Business Program. It should continue to support Bike to Work Day as a car-free event and explore additional policies and programs that can encourage walking and biking to work. The City should serve as a role model by actively promoting alternative commute modes for City employees.
SAFE ROUTES TO SCHOOL PROGRAM RECOMMENDATIONS

Safe Routes to School (SR2S) is a program that helps children to get to school by walking, bicycling, carpooling, or transit. It envisions active kids using safe streets, helped by engaged adults including teachers, parents, and police officers, complemented by responsible drivers. Every state has a SR2S coordinator and grant program, and Alameda CTC has a robust countywide SR2S Program. Although Anna Yates Elementary is a participating school in the Alameda CTC program, no other schools in the City participate. In recent years, Anna Yates has implemented the following SR2S activities:

**2019-2020 Activities**
- International Walk and Roll to School Day
- Golden Sneaker Contest

**2018-2019 Activities**
- Pedestrian Rodeo
- Bike Rodeo
- Alameda County BikeMobile Visit
- Bike to School Day
- International Walk and Roll to School Day
- Golden Sneaker Contest

However, Anna Yates Elementary has not completed a School Safety Assessment to determine school-specific infrastructure recommendations.

Emeryville is unique in that many of its schools are located in close proximity to one another. Anna Yates Elementary (grades K-5), Emery Secondary (grades 6-12), the private Escuela Bilingue (pre-K to 8th grade), the City’s Child Development Center (a preschool), the Emeryville Center for Community Life, the private Pacific Rim International School (pre-K to 12th grade), and the private East Bay German International School (pre-K to 12th grade) are all within a few blocks of San Pablo Avenue between 41st and 53rd Streets. San Pablo Avenue is a major impediment to pedestrian travel in the area, and many students have to cross San Pablo to access their schools.
The Alameda County SR2S Program offers the following programs that could be implemented in Emeryville:

- **Alameda County BikeMobile**
  The BikeMobile is like combining a bookmobile and a bicycle repair shop. The BikeMobile makes visits to schools to repair bicycles for students and reinforce safe bicycling.

- **Bike Blender**
  The Bike Blender uses bike pedal power to create smoothies, and can be a great tool to teach students about health and wellness. The Bike Blender can attend a school resource fair or other school-based festival or event.

- **Bicycle Rodeos**
  Bike rodeos are fun-filled courses that focus on introducing elementary and middle school students to safe bicycle handling skills and riding techniques on the road.

- **Creation for Transportation**
  Creation for Transportation is an art contest event that encourages high school students to explore the impacts of different transportation choices.

- **Drive Your Bike**
  The Drive Your Bike program is ideal for PE teachers who want to provide intensive bike safety education and training to middle and high school students.

- **Golden Sneaker Contest**
  Students are challenged to choose active travel for one week out of the year. The classroom with the most active trips wins the coveted Golden Sneaker trophy.

- **Walk & Roll to School Day**
  This worldwide celebration encourages students, families, and the school community to walk, bicycle, take transit, or use other nonmotorized transportation to get to school. Schools can also implement monthly or quarterly Walk & Roll to School Days to keep the enthusiasm up year-round.

- **Music Notes**
  Music Notes performs age-appropriate concerts that teach walking and biking safety through hip-hop songs and videos.

- **Pedestrian Rodeos**
  A team of safety instructors conducts this engaging and fun-filled traffic simulation course to teach students safe pedestrian behaviors.
- **Pedestrian Safety Workshops**
  Pedestrian safety workshops are assembly-style presentations that teach students safe, lawful pedestrian behavior using a simulated city street course.

- **Rail Safety Virtual Presentations**
  Alameda County SR2S offers online rail safety presentations for K-12 classes.

- **School Safety Assessments**
  School Safety Assessments are often the starting point of a Safe Routes to School Program as they help students, parents, and neighbors assess routes to schools and identify safety considerations.

Stakeholders walk the main routes to school to discuss safety issues and develop possible short-term and long-term solutions. Stakeholders may also use walking audits to evaluate the effectiveness of engineering improvements.

- **Walking School Buses and Bike Trains**
  Walking School Buses are formed when a group of children walk together to school and are accompanied by one or two adults (usually parents or guardians). The walking school bus picks up students at designated meeting locations. Walking School Buses can be implemented informally among parents or neighbors or as official school-wide endeavors with trained volunteers and structured meeting times and locations. Bike Trains are similar, except children and adults bicycle to school.

- **Youth Bicycle Safety Education Classes**
  Typical school-based bicycle education programs educate students about the rules of the road, proper use of bicycle equipment, biking skills, street crossing skills, and the benefits of biking.

**Recommendation:** The City should collaborate with Emery Unified School District for site assessment at qualifying schools and private schools to increase participation in the Alameda County SR2S program. In particular, Anna Yates and the other schools located at the ECCL campus should participate in a School Safety Assessment.
EDUCATION PROGRAM RECOMMENDATIONS

Adult Bicycling Skills Classes
Most adults biking have not received training on safe bicycling practices, the rules of the road, and bicycle handling skills. Bicycling skills classes can address this education gap. With a large planned increase in bicycle infrastructure in the coming years, the City should sponsor and partner with other organizations to provide Adult Bicycle Skills classes as a way to encourage people who are inexperienced or less comfortable biking to try out new facilities. The League of American Bicyclists offers classes taught by certified instructors. In addition, Bike East Bay offers adult bicycle education classes periodically and at the request of local jurisdictions. These classes include Adult Learn to Ride Classes (for adults who do not know how to ride a bicycle), Urban Cycling 101 (for new or less-experienced people), and a series of advanced classes on topics such as avoiding bike theft, riding after dark, and carrying things by bike (for more experienced people).

Recommendation: This Plan recommends the City sponsor and host a range of adult bicycling skills classes or partner with County or regional activities.

Family Bicycling Skills Classes
Similar to adult bicycling skills classes, family bicycling skills classes support parents and children. Classes may teach parents how to ride safely with their children in an urban environment (either on the bike with them, or riding on the sidewalk next to them) with neighborhood rides, or may teach children how to bicycle safely and follow the rules of the road through games and fun. Bike East Bay offers Family Cycling Workshops for parents and kids.

Recommendation: This Plan recommends the City sponsor and host family bicycling skills classes or partner with County or regional activities.
**Driver Education Program/Campaign**  
The California Office of Traffic Safety regularly has grant opportunities to fund educational campaigns that support pedestrian, bicycle, and roadway safety. A driver education campaign can help educate drivers about safe driving around people biking, walking, and rolling. For example, people driving should look for people bicycling when making a right turn to avoid the “right hook” collision. They should also look for people walking in the crosswalk when making a left turn to avoid the “left hook” collision.

**Recommendation:** This Plan recommends the City implement a driver education program and/or campaign.

**Annual Traffic Counts**  
Pedestrian and bicycle counts and community surveys act as methods to evaluate not only the effectiveness of specific pedestrian and bicycle improvement projects but can also function as way to measure progress towards reaching City goals. The City of Emeryville has a policy requiring all new large developments to conduct pedestrian and bicycle counts as part of the traffic impact analysis.

**Recommendation** The City should continue to require new large developments to conduct pedestrian and bicycle counts, and should expand traffic counts by:

- Conducting before and after pedestrian, bicycle, and vehicle counts on all roadway projects.
- Exploring the possibility of using automatic counters to collect data on key pedestrian and bicycle corridors, such as the Emeryville Greenway. Automatic count technologies can be useful for bicycle count efforts. In-pavement loop detectors accurately count bicycle activity on-street and infrared counters can count pedestrian and bicycle activities on paths.
Policy Recommendations

COMMITMENT TO HIGH-QUALITY BIKEWAYS

The City will advance the installation of separated bikeways identified in the bike network map within the Active Transportation Plan. The existing and proposed network of bicycle facilities will be reevaluated, and the map updated, as part of each Plan update.

MAINTENANCE

Bicycle facilities will be resurfaced at the time that the street on which it resides is resurfaced, to ensure equitable maintenance between vehicle and bicycle facilities.

The City will ensure sufficient funding levels of the bicycle and pedestrian facility maintenance fund in order to support maintenance activities.

SAFE ROUTES TO SCHOOLS

The City will continue to act as an engaged partner with the Emery Unified School District, local schools, and Alameda County in support of Safe Routes to School activities and programs.

EVALUATION

The City will complete bicycle and pedestrian counts in areas of near-term improvement construction. In combination with counts taken after implementation, this will ensure that complete data is available to measure improvement impacts.

The City will complete citywide bicycle and pedestrian counts as part of the regular update to the Active Transportation Plan in order to measure rates of bicycling and walking over time.

ENFORCEMENT

The City will establish a centralized database to track the implementation status of the bicycle and pedestrian network proposed in the Active Transportation Plan. The database, and its mapping component, will allow for the rapid creation of reports and maps to be deployed to officials and the public.

The City will maintain regular and open communication with local law enforcement in order to collaborate on-road safety enforcement activities and programs.
IMPLEMENTATION AND FUNDING
IMPLEMENTATION AND FUNDING

Purpose: This chapter outlines a strategy for the implementation of the proposed infrastructure projects as well as the recommended best practices for biking, walking, and rolling programs and policies.

Why it matters: Public resources are limited and the City needs a strategy for assembling funding from internal and external sources.

The adoption of this Active Transportation Plan is the first step in moving projects toward construction and enjoyment by the community. The project delivery process is explained in the graphic below. Implementation of the proposed bicycle and pedestrian programs and improvements described in the previous chapters of the Active Transportation Plan will require public and private funding from a combination of sources. Many regional connections will also require coordination with agencies outside the City such as Caltrans, Alameda CTC, the MTC, and AC Transit. To facilitate implementation efforts, this chapter presents the project cost estimates and potential funding sources.

Project Delivery Process

COST ESTIMATES

Planning-level per unit cost estimates for the recommended bikeway types, walkway improvements, and a range of possible intersection improvements are presented in Tables 5, 6, and 7 respectively. These costs cover the majority of facility types but does not reflect the full range of all possible options that could be considered for implementation. Some projects may cost more due to specific site conditions and other factors not known at this time. Other projects could be implemented using various treatments, including basic methods such as with paint, and therefore cost significantly less; but would not
incorporate the types of infrastructure options (pavement, curbs, or landscaping, for example) included in these cost estimates. Some projects could be installed in phrases using simple treatments initially with upgrades to more permanent infrastructure later as funding becomes available. The cost estimates are based on the design and construction costs for comparable projects in nearby jurisdictions and do not include maintenance and operations costs. Emeryville will have to budget funding for annual maintenance costs, as well as replacement costs for the end of the useful life of each improvement. Unit costs and assumptions for computing cost estimates are presented in Table 12: Bikeway Network Unit Costs, Table 13: Pedestrian Network Unit Costs, and Table 14: Spot Improvement Unit Costs. Cost estimates by walking, biking and rolling are shown in Table 15: Cost Estimates for the Recommended Bike Network, Table 16: Cost Estimates for the Recommended Pedestrian Network and Table 17: Cost Estimates for the Recommended Spot Improvements. Individual project cost estimates can be found in Appendix C: Detailed Recommendations Tables.

PROJECT DELIVERY PROCESS

1. **Budgeting**
   - The City allocates money in its Capital Improvement Plan for priority projects in the Active Transportation Plan. Additional funds are secured through external sources.

2. **Planning & Engineering Analysis**
   - Additional data is reviewed to determine final feasibility of recommendations in the Active Transportation Plan. Modifications are made if necessary.

3. **Conceptual Design**
   - The City starts the first phases of design with public input and completes the Project Approval and Environmental Document phase.

4. **Detailed Design**
   - The City completes the design with public input by producing construction plans, specifications, and cost estimates (PS&E).

5. **Construction & Maintenance**
   - The City manages the construction of the project and notifies the public about progress. The City monitors the project for future maintenance needs.
Table 12. Bikeway Network Unit Costs in 2022 dollars

<table>
<thead>
<tr>
<th>BIKEWAY TYPE</th>
<th>MILEAGE</th>
<th>COST ESTIMATE PER MILE LOW</th>
<th>COST ESTIMATE PER MILE HIGH</th>
<th>ASSUMPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared-Use Path (Class I)</td>
<td>2.5</td>
<td>$750,000</td>
<td>$1,500,000</td>
<td>Includes asphalt path and minor crossing improvements. Does not include signal modification or right-of-way acquisition.</td>
</tr>
<tr>
<td>Separated Bikeway (Class IV)</td>
<td>5.3</td>
<td>300,000</td>
<td>$900,000</td>
<td>Low cost assumes signage, striping, and a painted buffer with flexible delineators. High cost assumes green conflict marking, traffic signal modification including bike signal detection, and a raised concrete buffer.</td>
</tr>
<tr>
<td>Buffered Bike Lane (Class IIB)</td>
<td>0.7</td>
<td>$200,000</td>
<td>$450,000</td>
<td>Low cost assumes signage, striping, and a painted buffer. High cost assumes green conflict marking, traffic signal modification including bike signal detection, and wayfinding signage.</td>
</tr>
<tr>
<td>Standard Bike Lane (Class II)</td>
<td>0</td>
<td>$150,000</td>
<td>$400,000</td>
<td>Low cost assumes signage, striping. High cost assumes green conflict marking, traffic signal modification including bike signal detection.</td>
</tr>
<tr>
<td>Bike Boulevard / Bike Route (Class III)</td>
<td>2.1</td>
<td>$300,000</td>
<td>$650,000</td>
<td>Low cost assumes signage, striping, and minor traffic calming such as speed humps, and up to 3 other elements such as medians, diverters, or a raised crosswalk. High cost assumes low-cost items plus traffic circles, curb extensions, traffic signal modification including bike signal detection, and wayfinding signage.</td>
</tr>
</tbody>
</table>
Table 13. Pedestrian Network Unit Costs in 2022 dollars

<table>
<thead>
<tr>
<th>PEDESTRIAN IMPROVEMENT TYPE</th>
<th>MILEAGE</th>
<th>COST ESTIMATE PER MILE</th>
<th>ASSUMPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Sidewalk</td>
<td>1.1</td>
<td>$500,000</td>
<td>This assumes $25 per square foot and 6 feet wide completely rebuilt concrete sidewalks. This estimate is conservative as some segments can be implemented with slightly less expensive materials such as asphalt or decomposed granite.</td>
</tr>
<tr>
<td>Sidewalk Enhancement and Major Maintenance</td>
<td>1.4</td>
<td>$500,000</td>
<td>This assumes $25 per square foot and 6 feet wide completely rebuilt concrete sidewalks. This estimate is conservative as some segments can be implemented with slightly less expensive materials such as asphalt or decomposed granite. This type of recommendation may also require less material.</td>
</tr>
</tbody>
</table>
Table 14. **Spot Improvement Unit Costs in 2022 dollars**

<table>
<thead>
<tr>
<th>IMPROVEMENT</th>
<th>NOTES</th>
<th>UNIT</th>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb Extension</td>
<td>Per corner. No utility or storm drain relocations. Cost depends on size of intersection, and does not include curb ramps.</td>
<td>Each (EA)</td>
<td>$25,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Curb Radius Reduction</td>
<td>Per corner. No utility or storm drain relocations. Cost depends on size of intersection, whether regrading of intersection required.</td>
<td>EA</td>
<td>$25,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Bike Skip Boxes Thru</td>
<td>Intersection</td>
<td>EA</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Bike Boxes</td>
<td></td>
<td>EA</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Right-Turn Slip Lane Removal</td>
<td>No utility or storm drain relocations</td>
<td>EA</td>
<td>$25,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>High-Visibility Crosswalk Marking</td>
<td>High-Visibility Crosswalk - medium (4-5 lanes)</td>
<td>EA</td>
<td>$5,000</td>
<td>$15,000</td>
</tr>
<tr>
<td>Advance Yield/Stop Line</td>
<td>Thermoplastic paint</td>
<td>EA</td>
<td>$500</td>
<td>$2,000</td>
</tr>
<tr>
<td>Curb Ramp</td>
<td>No utility or storm drain removal</td>
<td>EA</td>
<td>$5,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Raised Crossing</td>
<td>Varies by length of crossing. No utility or storm drain relocations.</td>
<td>EA</td>
<td>$15,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Pedestrian Refuge Island</td>
<td>No utility or storm drain relocations. Cost varies with size of crossing.</td>
<td>EA</td>
<td>$10,000</td>
<td>$50,000</td>
</tr>
</tbody>
</table>
Table 14. **Spot Improvement Unit Costs in 2022 dollars, continued**

<table>
<thead>
<tr>
<th>IMPROVEMENT</th>
<th>NOTES</th>
<th>UNIT</th>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian Undercrossing/Overcrossing</td>
<td>Varies by location.</td>
<td>EA</td>
<td>$5,000,000</td>
<td>$20,000,000</td>
</tr>
<tr>
<td>Stop Sign Warrant Analysis</td>
<td>Covers warrant analysis and cost of sign installation.</td>
<td>EA</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>RRFB</td>
<td></td>
<td>EA</td>
<td>$60,000</td>
<td>$85,000</td>
</tr>
<tr>
<td>PHB/HAWK</td>
<td></td>
<td>EA</td>
<td>$500,000</td>
<td>$800,000</td>
</tr>
<tr>
<td>Leading Pedestrian Interval</td>
<td>Per intersection. Costs vary by type of change and equipment required.</td>
<td>EA</td>
<td>$3,500</td>
<td>$5,000</td>
</tr>
<tr>
<td>Bike Signal Head</td>
<td>High cost assumes a Type 15 TS.</td>
<td>EA</td>
<td>$10,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Traffic Signal</td>
<td></td>
<td>EA</td>
<td>$600,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Signage</td>
<td></td>
<td>EA</td>
<td>$500</td>
<td>$1,500</td>
</tr>
<tr>
<td>Standard Crosswalk</td>
<td></td>
<td>EA</td>
<td>$900</td>
<td>$1,600</td>
</tr>
<tr>
<td>Protected Intersection</td>
<td>Includes all four corners of intersection</td>
<td>EA</td>
<td>$500,000</td>
<td>$500,000</td>
</tr>
</tbody>
</table>
The total cost to implement the recommendations in this plan is $23,948,400. Costs by category are shown in Tables 15-18 below.

Table 15. Cost Estimates for the Recommended Bike Network in 2022 dollars

<table>
<thead>
<tr>
<th>RECOMMENDED CATEGORY</th>
<th>COST ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared-Use Path (Class I)</td>
<td>$3,322,800</td>
</tr>
<tr>
<td>Separated Bikeway (Class IV)</td>
<td>$4,728,200</td>
</tr>
<tr>
<td>Buffered Bike Lane (Class IIB)</td>
<td>$307,800</td>
</tr>
<tr>
<td>Bike Boulevard / Bike Route (Class III)</td>
<td>$1,374,800</td>
</tr>
<tr>
<td>Overcrossing</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>$14,733,600</td>
</tr>
</tbody>
</table>

Table 16. Cost Estimates for the Recommended Pedestrian Network in 2022 dollars

<table>
<thead>
<tr>
<th>RECOMMENDED CATEGORY</th>
<th>COST ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Sidewalk</td>
<td>$550,000</td>
</tr>
<tr>
<td>Sidewalk Enhancement and Major Maintenance</td>
<td>$701,700</td>
</tr>
<tr>
<td>Total</td>
<td>$1,251,700</td>
</tr>
</tbody>
</table>

Table 17. Cost Estimates for the Recommended Spot Improvements in 2022 dollars

<table>
<thead>
<tr>
<th>RECOMMENDED CATEGORY</th>
<th>COST ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Intersection Upgrade</td>
<td>$4,317,500</td>
</tr>
<tr>
<td>Upgraded Crossing</td>
<td>$186,600</td>
</tr>
<tr>
<td>New Crossing</td>
<td>$288,000</td>
</tr>
<tr>
<td>Traffic Signal</td>
<td>$2,200,000</td>
</tr>
<tr>
<td>Signage</td>
<td>$6,000</td>
</tr>
<tr>
<td>Total</td>
<td>$6,998,100</td>
</tr>
</tbody>
</table>

Note: Certain spot improvements located along study corridors are not included in the cost estimates in the table above. More specific cost estimates for these locations will be developed in the design phase of the corridor studies.

Table 18. Multimodal Studies in 2022 dollars

<table>
<thead>
<tr>
<th>RECOMMENDED CATEGORY</th>
<th>COST ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multimodal Studies</td>
<td>$965,000</td>
</tr>
</tbody>
</table>
There are a variety of potential funding sources including local, regional, state, and federal. Emeryville should also take advantage of private contributions in developing the proposed system. This could include requiring development to construct adjacent recommendations as a condition of development approval where there is a nexus of traffic impacts. The funding sources considered most relevant for Emeryville are described below.

### Local and Regional Grant Programs

**EMERYVILLE CAPITAL IMPROVEMENT PROGRAM**

The City’s Capital Improvement Program establishes the infrastructure funding plan over a five-year timeframe. The City uses restricted and unrestricted resources to fund capital projects. Restricted funds include developer impact fees and contributions, revenues from other agencies/special funds, grants, bond proceeds, and funds provided by the Successor Agency. Unrestricted funds include tax increment revenues, commercial transfer tax revenues, discretionary General Fund, and operating budget program contributions. The Capital Improvement Program Revenue Projection schedule details the available revenues. The 2019-2024 Capital Improvement Program budgets $2.9 million for pedestrian and bicycle projects.

### CONDITIONS OF APPROVAL (COA)

Emeryville has included pedestrian and bicycle improvements as a condition of approval for developers. Improvements include new sidewalks or bicycle facilities along the project frontage, or intersection improvements to facilitate project site access. In commercial areas, property owners are required to maintain street trees and sidewalks along their frontage.
**PLANNED ROADWAY IMPROVEMENTS**

Pedestrian and bicycle improvements can often be included in ongoing roadway projects or planned roadway improvements for a nominal cost. This may include adding curb ramps during a utility reconstruction or marking bicycle lanes or stencils during routine roadway paving projects. The City of Emeryville should continue to review planned roadway projects to determine if there are opportunities for coordination between these planned projects and the pedestrian and bicycle recommendations presented in this plan.

**ALAMEDA COUNTY COMPREHENSIVE INVESTMENT PLAN**

The purpose of the Comprehensive Investment Plan is to facilitate strategic programming and allocation of all federal, state, regional, and local fund sources under the Alameda CTC’s purview. This includes, but is not limited to, federal Surface Transportation Program/Congestion Mitigation Air Quality, State Transportation Improvement Program, County Transportation Fund for Clean Air (TFCA), and local sales tax measures and vehicle registration fee programs. The Comprehensive Investment Plan streamlines the programming of these fund sources by considering all available fund sources through a consolidated process that prioritizes, evaluates, and recommends funding to critical transportation infrastructure and operations needs that build and maintain the county’s transportation system. The expenditure and revenue assumptions included in the Comprehensive Investment Plan are updated annually and proposals for new projects and programs are considered every two years as part of a full Comprehensive Investment Plan update cycle.

Funds are programmed by the Alameda CTC.

**TRANSPORTATION DEVELOPMENT ACT ARTICLE 3**

Transportation Development Act Article 3 (TDA 3) provides funding annually for bicycle and pedestrian projects. Two percent of TDA 3 funds collected within the county are used for TDA 3 projects. MTC policies require that all projects be reviewed by a BPAC or similar body before approval. Funds are programmed by the Alameda CTC.
**TRANSPORTATION FUND FOR CLEAN AIR**

The Transportation Fund for Clean Air (TFCA) is a local fund source for the Bay Area Air Quality Management District. TFCA funds projects that result in a reduction of motor vehicle emissions. Sixty percent of TFCA funds are awarded by the Air District through the TFCA Regional Fund, and to eligible programs implemented directly by the Air District, referred as Air District-sponsored programs. The remaining 40% of this funding is passed through to the designated agencies of the nine Bay Area counties through the County Program Manager Fund and is awarded by these agencies to TFCA-eligible projects located within those counties.

Funds are programmed by the Bay Area Air Quality Management District (Regional Fund) and Alameda CTC (County Program).

**ONE BAY AREA GRANT (OBAG)**

The One Bay Area Grant guides how MTC distributes federal transportation funding from the Federal Highway Administration to projects and programs that improve safety, spur economic development, and help the Bay Area meet climate change and air quality improvement goals.

Funds are programmed by the MTC.

**STATE GRANT PROGRAMS**

**CALIFORNIA ACTIVE TRANSPORTATION PROGRAM**

California’s Active Transportation Program (ATP) funds infrastructure and programmatic projects that support the program goals of shifting trips to walking and bicycling, reducing GHG emissions, and improving public health. Competitive application cycles occur every one to two years, typically in the spring or early summer. Eligible projects include construction of bicycling and walking facilities, new or expanded programmatic activities, or projects that include a combination of infrastructure and non-infrastructure components. Typically, no local match is required, though extra points are awarded to applicants who do identify matching funds.

Funds are programmed by the California Transportation Commission.
**SUSTAINABLE TRANSPORTATION PLANNING GRANTS**

Caltrans Sustainable Transportation Planning Grants are available to communities for planning, study, and design work to identify and evaluate projects, including conducting outreach or implementing pilot projects. Communities are typically required to provide an 11.47% local match, but staff time or in-kind donations are eligible to be used for the match provided the required documentation is submitted.

Funds are programmed by Caltrans.

**HIGHWAY SAFETY IMPROVEMENT PROGRAM**

Caltrans offers Highway Safety Improvement Program (HSIP) grants every one to two years. Projects on any publicly owned road or active transportation facility are eligible, including bicycle and pedestrian improvements. HSIP focuses on projects that explicitly address documented safety challenges through proven countermeasures, are implementation-ready, and demonstrate cost-effectiveness.

Funds are programmed by Caltrans.

**SOLUTIONS FOR CONGESTED CORRIDORS PROGRAM**

Funded by SB1, the Congested Corridors Program strives to reduce congestion in highly traveled and congested roads through performance improvements that balance transportation improvements, community impacts, and environmental benefits. This program can fund a wide array of improvements including bicycle facilities and pedestrian facilities. Eligible projects must be detailed in an approved corridor-focused planning document. These projects must include aspects that benefit all modes of transportation using an array of strategies that can change travel behavior, dedicate right-of-way for bikes and transit, and reduce vehicle miles traveled.

Funds are programmed by the California Transportation Commission.
OFFICE OF TRAFFIC SAFETY
Under the Fixing America’s Surface Transportation Act, 5% of Section 405 funds are dedicated to addressing nonmotorized safety. These funds may be used for law enforcement training related to pedestrian and bicycle safety, enforcement campaigns, and public education and awareness campaigns.

Funds are programmed by the California Office of Traffic Safety.

RECREATIONAL TRAILS PROGRAM
The Recreational Trails Program helps provide recreational trials for both motorized and nonmotorized trail use. Eligible products include trail maintenance and restoration, trailside and trailhead facilities, equipment for maintenance, new trail construction, and more.

Funds are programmed by the California Department of Parks and Recreation.

AFFORDABLE HOUSING AND SUSTAINABLE COMMUNITIES PROGRAM
The Affordable Housing and Sustainable Communities Program (AHSC) funds land-use, housing, transportation, and land preservation projects that support infill and compact development that reduces GHG emissions. Projects must fall within one of three project area types: transit-oriented development, integrated connectivity project, or rural innovation project areas. Fundable activities include affordable housing developments, sustainable transportation infrastructure, transportation-related amenities, and program costs.

Funds are programmed by the Strategic Growth Council and implemented by the Department of Housing and Community Development.
**URBAN GREENING GRANTS**

Urban Greening Grants support the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. Projects must include one of three criteria, most relevantly: reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes, or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools. Eligible projects include green streets and alleyways and nonmotorized urban trails that provide safe routes for travel between residences, workplaces, commercial centers, and schools.

Funds are programmed by the California Natural Resources Agency.

**STATEWIDE PARK PROGRAMS (SPP)**

The Statewide Park Program solicits competitive grants to fund new parks and recreation opportunities in critically underserved communities across California. Funds can be used to create and expand/renovate existing parks. All projects must include at least one “recreation feature” which includes nonmotorized trails. No match is required.

Funds are programmed by the California Department of Parks and Recreation.
Other State Programs

**SENATE BILL 1: LOCAL PARTNERSHIP PROGRAM**

This program provides local and regional agencies that have passed sales tax measures, developer fees, or other transportation-imposed fees to fund road maintenance and rehabilitation, sound walls, and other transportation improvement projects. Jurisdictions with these taxes or fees are then eligible for a formulaic annual distribution of no less than $100,000. These jurisdictions are also eligible for a competitive grant program. Local Partnership Program funds can be used for a wide variety of transportation purposes including roadway rehabilitation and construction, transit capital and infrastructure, bicycle and pedestrian improvements, and green infrastructure.

Funds are programmed by California Transportation Commission.

**SENATE BILL 1: ROAD MAINTENANCE AND REHABILITATION PROGRAM**

Senate Bill 1 created the Road Maintenance and Rehabilitation Program to address deferred maintenance on state highways and local road systems. Program funds can be spent on both design and construction efforts. On-street active transportation-related maintenance projects are eligible if program maintenance and other thresholds are met. Funds are allocated to eligible jurisdictions.

Funds are programmed by the State Controller’s Office.