CHAPTER GUIDE

TOPIC: Description of the walking environment, programs, and planning in Alameda County in early 2006 and plans to improve walkability throughout the County.

AUDIENCE: Public agency staff, advocates and others who would like to learn about pedestrian facilities, programs, and statistics in Alameda County.

USES: To develop a baseline of pedestrian conditions in Alameda County; to assist in the development of the Plan's vision and goals; to help focus countywide pedestrian funds on the best and most effective uses; and to inform future pedestrian planning efforts in Alameda County.

INTRODUCTION

Alameda County residents walk on average more than most residents of the Bay Area, the State and even the nation. What is it about Alameda County that creates these higher walking rates? Is it topography, weather, development patterns or transit service? Or is it unique characteristics of the residents themselves? In areas where people are walking less, why is this? Are there opportunities to increase walking throughout the County?

This chapter attempts to answer these questions by describing the walking environment in Alameda County in 2006. In addition, it describes what is envisioned for pedestrian conditions over the next 10-20 years as expressed in adopted plans throughout the County. This existing conditions information serves a number of purposes:

- Develops a baseline of pedestrian conditions in Alameda County;
- Assists in the development of this Plan's vision and
- Helps focus countywide pedestrian funds, such as Measure B, on the best and most effective uses; and
- Informs future pedestrian planning efforts in Alameda

The focus of this Plan is to compare pedestrian environments and find common as well as differing patterns, trends, and needs at the countywide level that could be addressed by a countywide transportation agency, such as ACTIA or the Alameda County Congestion Management Agency (ACCMA).



The research for this chapter began with a review of local plans that influence the pedestrian environment, pedestrian design standards, and other documents that influence walkability in Alameda County's 14 cities and the unincorporated areas. This literature review also included the planning work of inter-jurisdictional, countywide, and regional public agencies such as the Association of Bay Area Governments (ABAG), the Metropolitan Transportation Commission (MTC), the Bay Area Rapid Transit (BART) District, AC Transit, the East Bay Regional Park District (EBRPD), and the ACCMA.

Questionnaires (see Appendix A) were sent to planners and engineers at Alameda County and each of the 14 cities, which were followed up by in-person interviews. Selected regional planners, transit agency staff, pedestrian advocates, and public health professionals

were also interviewed. (See Appendix B for a list of interviewees.)

The information contained in this chapter has never been collected before in one place. Apart from these interviews, questionnaires and literature search, no additional inventories or studies were conducted. Unlike a local pedestrian master plan, this Plan does not contain a block-by-block or neighborhood-by-neighborhood assessment of walking conditions. The chapter is structured as described in the box below.

EXISTING CONDITIONS CHAPTER

- The Setting describes the varied topography and climate found in Alameda County and its development history.
- The Pedestrian Environment qualitatively assesses existing on-street pedestrian conditions throughout the County.
- Walking to Public Transit catalogues transit service in Alameda County and the pedestrian environment in the vicinity of transit stops and stations.
- Trails describes the County's off-road paved multi-use paths as well as plans for improving trails.
- Walking Data provides socio-economic data and walking rates of Alameda County residents.
- Walking and Public Health explores the relationship between walking and disease and public safety.
- Future Pedestrian Improvements discusses
 planning efforts and how these might influence
 the County's pedestrian environment.
- Programs & Advocacy summarizes programs and advocacy efforts that encourage walking in Alameda County.
- Conclusions summarizes existing pedestrian conditions in Alameda County in the context of opportunities for ACTIA and the ACCMA.

SETTING

PURPOSE

To provide an overview of the geography and development history of Alameda County communities

and to detail the characteristics of each area that shape the quality of its walking environment.

KEY FINDINGS

- 1. Alameda County contains a number of diverse subareas, in terms of geography, climate, development history and walking environments.
- 2. Alameda County is the second most populated county in the Bay Area, after Santa Clara, and the second densest, after San Francisco.
- 3. Jurisdictions in Alameda County incorporated between 1852 and 1982; the northern cities developed before WWII; and, while some eastern cities incorporated in the nineteenth century, all southern and eastern cities developed primarily in the post-war era
- 4. Generally, residential density and the percentage of car-free households decreases, and income increases, as one moves south and then east in Alameda County.

Alameda County is the geographic center of the San Francisco Bay Area, located across the Bay from the San Francisco peninsula, which stretches from the Golden Gate Bridge south to Silicon Valley. Most of Alameda County is bounded by the San Francisco Bay to the west and the East Bay Hills to the east. In this area, many Alameda County cities are built on coastal flatlands that rise—gently in some places, steeply in others—to rolling hillsides. Eastern Alameda County, across the hills from southern Alameda County, is part of an inland region known as the Tri-Valley. It is bordered by rolling hillsides and has much hotter summertime temperatures than the Bay-influenced portions of the County.

Alameda County has a total land area of 738 square miles. The County's population was 1.4 million in 2000, making it the second most populated county in the Bay Area, after Santa Clara County and the second densest, after San Francisco. Although Alameda County has a higher household median income than the State and nation, it has a lower median income than the regional average.¹

Throughout this section, demographic information is from the 2000 U.S. Census, historic information is from each city's website, and geographic descriptions are from the East Bay Economic Development Alliance for Business (www.edab.org). Table 2 contains a summary of population, density and demographic information, by planning area.

Alameda County has a rich history, from Native American settlements to Spanish land grants at the turn of the eighteenth century to farms, ranches and orchards by the time the County incorporated in 1853. The Transcontinental Railway, electric streetcars and waterfront development helped North and Central Alameda County towns become cities by the turn of the twentieth century. After WWII, the automobile spurred the suburbanization of South and East County cities. This rich and varied history has shaped development patterns throughout Alameda County, including streets, roads, freeways, and transit, all of which affect pedestrian conditions and travel.

This section details characteristics of communities throughout Alameda County that contribute to the walking environment of each.

> Alameda County's rich and varied history has shaped its development patterns, including streets, roads, freeways and transit, all of which affect pedestrian conditions and travel.

The Four Planning Areas

Many factors contribute to Alameda County's travel patterns. This section provides a closer view of the topography, climate, and development history that have shaped communities and influenced walkability throughout Alameda County. As we take a closer look, differences emerge between communities in various parts of the County. In terms of development, roadway characteristics, pedestrian facilities, transit service and patronage, demographics, and walking patterns, the County's northern communities bear more resemblance to the residential areas of San Francisco than to the rest of Alameda County. Southern Alameda County—with its juxtaposition of old historic districts and newer suburban style development—is similar to neighboring Santa Clara County. Communities in central Alameda County represent a transition between the more urban north and more suburban south. And in many ways, eastern Alameda County is more similar to its neighbors in fastgrowing San Joaquin County or along the I-680 corridor in Contra Costa County, than to the other cities in Alameda County. This chapter tells the story of walking in Alameda County, recognizing that pedestrian habits, facilities, planning, programs and advocacy are, in many

respects, more similar within each of these four parts of the County than they are between them.

Because of the similarities found within each area, ACTIA and the ACCMA have divided Alameda County into four "planning areas," which are used for transportation funding and planning (see Figure 1). This Plan uses the same planning areas for analysis. Data that is only available at the County level is presented as such and local information is used to illustrate particular

NORTH PLANNING AREA

The North planning area contains the most cities (six) and the highest population (over 600,000) of the four planning areas, including the county's largest city, Oakland, the smallest, Piedmont, as well as Albany, Berkeley, Alameda, and Emeryville. Interestingly, the North planning area is the smallest, geographically, of the four planning areas, at 82 square miles.



Berkeley and Oakland, the two largest North County cities have flatland neighborhoods built on a Bay-side plain and steeper districts forming the eastern edge of both cities. Albany (with the exception of Albany Hill), Emeryville and Alameda hug the Bay shoreline and are predominantly flat. Piedmont, a hillside enclave surrounded on all sides by the City of Oakland, is quite hilly, with the exception of a few blocks around Grand and Oakland avenues. A number of creeks flow from the eastern hills of the North planning area to the Bay, some

with trails alongside them. Due to the North planning area's location directly across the Bay from the Golden Gate Bridge, summertime fog keeps temperatures lower here than in the rest of the County.

Two predominant development forces in the North planning area were the University of California, which established its campus in the Berkeley foothills in the late 1800s, and the Trans-Continental railroad that terminated in Oakland in 1869. The University to this day continues to strongly influence development of a dense campus community and downtown that cater to thousands of students, faculty, staff and other visitors who daily walk in its vicinity. The railroad—and subsequently the Port of Oakland - helped Oakland to become a regional economic center and the third largest city in the Bay Area (after San Jose and San Francisco), with a large, dense downtown that continues to be the city's most walkable

North planning area cities incorporated between the mid-1850s and the turn of the twentieth century. (See Table 1.) The residential areas of Alameda, Oakland, Berkeley, and Albany developed along the routes of the Key streetcar system, which, until its post WWII decline, linked plentiful and relatively inexpensive housing with ferries to San Francisco jobs. The result is dozens of neighborhoods that were well-served by public transit and which had and still have a grid street system, short blocks, local shopping districts, and a pedestrian orientation originally intended to serve these commuters and their families. The development pattern in Emeryville—the former site of multiple Native American settlements—is anomalous for the North planning area: the city has historically been primarily home to industrial land uses, apart from a handful of small, older neighborhoods. However, due to considerable recent housing construction, Emeryville's residential stock is on average much newer and denser than other cities in the planning area and the County.

Gross densities in the North planning area average 4.8 dwelling units per acre, ranging from 3.5 in Piedmont to 7.0 in Berkeley. (Note: gross densities reported in this chapter include some non-urbanized land, and are therefore lower than if typical, net density figures had been used. Please see Table 2 for more information.) However, densities tend to be higher in the flatlands, where there are more transit options, and lower in the hills. Additionally, as discussed more fully in the Walking Data section, transit use is high in the North planning area, in part perhaps because median household income

is low (\$45,000 per year) and the percentage of households without a car is high (17 percent), relative to the rest of Alameda County and the region. (See Table 2.)

TABLE 1: DATES OF INCORPORATION

JURISDICTION	DATE
Oakland	1852
Alameda	1853
Alameda County	1853
San Leandro	1872
Hayward	1876
Livermore	1876
Berkeley	1878
Pleasanton	1894
Emeryville	1896
Piedmont	1907
Albany	1909
Newark	1955
Fremont	1956
Union City	1959
Dublin	1982

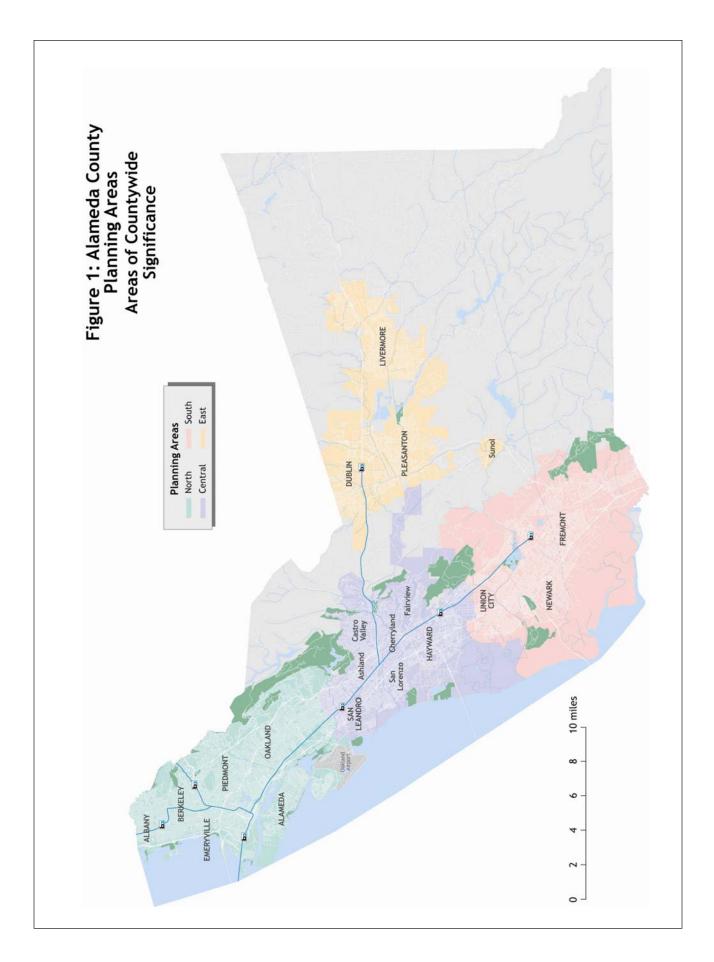
Source: California Planners' Information Network, Governor's Office of Planning & Research, State Clearinghouse & Planning Unit

Although cities in the North planning area have fewer trails than the East planning area, the existence of walkable shopping areas and a dense urban fabric—by East Bay standards—results in generally walkable conditions, at least at the neighborhood level.

CENTRAL PLANNING AREA

The Central planning area adjoins the other three planning areas, and includes the cities of San Leandro and Hayward and the unincorporated communities of Ashland, Cherryland, San Lorenzo, Fairview, and Castro Valley. This planning area has the second-highest population (350,000) and the largest land area (113 square miles) of the four planning areas. The unincorporated communities constitute almost sixty percent of the area's population.

San Leandro and Hayward follow Berkeley and Oakland's topographic profile and include flat districts close to the Bay with hilly neighborhoods in the east. Ashland, Cherryland, Fairview and San Lorenzo are



primarily flat, while Castro Valley is built closer to the eastern hills. San Leandro and San Lorenzo creeks are two of the few Central planning area creeks that have not been contained in underground culverts.

The communities of the Central planning area developed much later than those in the north. Although both of the planning area's cities—San Leandro and Hayward incorporated in the 1870s, this area was primarily wetlands, farms and grazing land until the post-WWII building boom, mostly resulting in development patterns typical of the time: segregated land uses and a discontinuous local street network. In Hayward and San Leandro, the outcome is pedestrian-scale downtown districts surrounded by predominantly automobileoriented neighborhoods. Some San Leandro neighborhoods, however, resemble North planning area cities, with a grid street network. Ashland, Cherryland, Fairview, San Lorenzo and Castro Valley are mostly residential communities with no downtown districts, but some small commercial centers.

Although the Central planning area has the second highest average residential gross densities in Alameda County, there are fewer than half as many dwelling units per acre than in the North planning area. Median household income at almost \$54,500 is higher than the North planning area's, but still lower than the county average of \$56,000. (See Table 2.)

TABLE 2: POPULATION, DENSITY AND DEMOGRAPHICS (Year 2000)

Area	POPULATION	DWELLING UNITS (DU)	POPULATED AREA (ACRES)	POPULATED AREA* (MI ²)	GROSS DENSITY** (DU/AC)	MEDIAN INCOME	CAR-FREE HOUSEHOLDS
North Planning Area	608,757	251,408	52,480	82	4.8	\$44,889	17.1%
Central Planning Area	353,858	122,917	72,448	113	1.7	\$54,433	6.9%
South Planning Area	312,745	101,479	70,336	109	1.4	\$74,777	4.7%
East Planning Area	168,381	60,953	71,040	111	0.9	\$81,857	4.4%
Populated Alameda County	1,443,741	536,757	266,304	416	2.0	\$55,946	10.9%
Alameda County TOTAL	1,443,741	536,757	471,680	737	1.1	\$55,946	10.9%
Regional Total/Average	7,039,362					\$62,024	9.9%

Source: 2000 U.S. Census and Existing Land Use in 2000: Data for Bay Area Counties, Association of Bay Area Governments.

^{*} Populated area is defined here as the combined acreage—both urbanized and non-urbanized—of the cities and the populated unincorporated communities within each planning area. Although this number includes the non-urbanized areas within the cities and unincorporated communities, it does not include the non-urbanized unincorporated areas outside of the borders of these areas. Unfortunately, the urbanized acreage alone of each planning area is not available. (Note: The TOTAL area of Alameda County reported under the two area columns is the total area, and is not limited to the populated areas.)

^{**} The gross density of an area is calculated by dividing the number of housing units in that area by the area's populated acreage. Ideally, gross density would be calculated using the urbanized acreage only. However, as stated in the footnote above, this data is not available. Net density—a common measure of a community's walkability—would go further to exclude certain uses from the area's acreage, such as roadways and urban public spaces. While the gross densities shown may be used to compare the relative density of one planning area to another, they should not be confused with net densities.

SOUTH PLANNING AREA

The South Planning area comprises Newark, Union City and Fremont. Union City and Fremont are similar to the other large and medium-sized cities in the North and Central planning areas in that they are primarily flat, but include steep neighborhoods along their eastern borders. Newark, located entirely on the west side of I-880 and bordered by Fremont and the Bay, is completely flat. Dry Creek and Alameda Creek flow from the eastern hills west to the Bay. Due to its location much farther from the mouth of San Francisco Bay, temperatures in the South planning area are much higher than they are in the North and Central planning areas.



Newark, Union City and the communities of Centerville, Niles and Irvington began developing around the same time that Hayward and San Leandro were incorporating, in the 1870s, but did not incorporate into the South planning area's three cities until the mid-to-late 1950s. The resulting land use pattern includes small, pedestrianscale districts at the sites of the original communities, and primarily automobile-oriented development elsewhere, characterized by long blocks of higher-speed traffic, culde-sacs, and segregated land uses. As described in the Future Pedestrian Improvements section, development patterns are changing in Fremont and Union City, as these cities strive to create transit- and pedestrianoriented communities. In Fremont, an increasing number of higher density housing developments are being constructed in the 15-30 units per acre range and Union City's Intermodal Station plans call for 40-80 units per acre.

Fremont is the second largest city in Alameda County, with a population of over 200,000. About twenty percent of Alameda County residents live in the South planning area, which comprises almost thirty percent of the County's land area. Average gross densities are

consistent among Fremont, Union City and Newark: 1.4 to 1.5 dwelling units per acre, well below the County average of 2.0. Median income in this planning area is the second-highest in the county (\$75,000) and fewer than five percent of households have no automobile, less than half the County average of 10.9 percent.

The South planning area has small, pedestrian-scale districts at the sites of the original communities, and primarily automobile-oriented development elsewhere.

EAST PLANNING AREA

The East planning area—the Alameda County portion of the area known as the "Tri-Valley"—includes Dublin, Pleasanton, Livermore and the unincorporated hamlet of Sunol. This area is primarily flat, with a number of canals and arroyos, and is surrounded by rolling hills. Summertime temperatures here are the highest in Alameda County, due to the region's distance from the cooling influence of San Francisco Bay.

A primary difference between the East and South planning areas is that, while the original settlements in the south were in a number of small districts, Pleasanton and Livermore grew outward from a single downtown in each city. The results in this planning area are pedestrian-scale downtowns, both of which have or were undergoing a walkability renaissance, as of early 2006. Dublin has plans to create a walkable downtown core, although none exists today. Outside of these downtown areas and the vicinity of the Dublin/Pleasanton BART station, the East planning area—like the South—is primarily characterized by long blocks, wide, fastmoving arterials, and segregated land uses.

The two largest cities in the East planning area—Pleasanton and Livermore—have unique development histories in that both were farming communities that incorporated in the mid- to late 1800s, but did not see most of their development until a century later. Dublin incorporated in 1982, the last Alameda County city to do so. Sunol, a "census-designated place," covers over 30 square miles—greater than Dublin's land area—but is home to fewer than 400 families. East planning area communities have a combined population of 170,000 and land area of 111 square miles, making this the smallest planning area in terms of population, but nearly the largest in terms of area. Gross densities range from 0.02

units per acre in Sunol to 0.5 units per acre in Dublin to 1.7 in Pleasanton and Livermore, all well below the County average. As described in Future Pedestrian Improvements section, Dublin, Pleasanton and Livermore are increasing their supply of higher density housing.



East planning area annual median income is the highest in the county, over \$80,000, and like the South planning area, fewer than five percent of households have no automobile.

THE PEDESTRIAN ENVIRONMENT

PURPOSE

To describe the physical aspects of the County's 14 jurisdictions and unincorporated communities that influence how safe, convenient, accessible, and pleasant each area is for pedestrians.

KEY FINDINGS

- 1. There are opportunities to walk in every city in Alameda County.
- 2. Communities within each planning area tend to have similar pedestrian environments.
- 3. Cities in the North and Central planning areas are more walkable in general than those in the South and East.

This section describes the physical aspects of the jurisdictions within each of the four planning areas such as sidewalks, crossings and physical barriers—that influence how safe, convenient, accessible, and pleasant each area is to pedestrians. Infrastructure needs, as identified by city staff, are also described.

Because this document provides a countywide view of the pedestrian environment in jurisdictions throughout Alameda County, this section does not itemize local conditions in detail, as a local pedestrian master plan would. In mid-2006, ACTIA conducted a survey of local jurisdictions in Alameda County which showed that there is a local need of upwards of \$940 million in pedestrian improvements, including new and repaired sidewalks, new and upgraded curb ramps, pedestrian signal improvements (such as pedestrian signal heads, audible signals and countdown signals), and trail and pathway improvements. Please note that this figure does not include needs in the City of Berkeley—which is in the process of developing comprehensive curb ramp, sidewalk and crosswalk inventories—and that each agency used a different methodology to calculate local costs. See Appendix C for a breakdown of the data provided.

> There are opportunities to walk in every Alameda County city, and in many neighborhoods distances are short enough to allow walking to school, the grocery store, the library, the park.

The environment is most conducive to walking in the North planning area and in older downtown areas elsewhere in the County. However, there are opportunities to walk in every Alameda County city. In many neighborhoods, distances are short enough to allow walking to school, the grocery store, the library, the park. Particularly in the South and East planning areas, these trips are rarely made on foot due to high summertime temperatures, frequent wide arterials, and development patterns that segregate land uses, sometimes with walls and fences. As discussed in Future Pedestrian Improvements, plans are in the works to make many of these areas more inviting to pedestrians.

North Planning Area

In general, jurisdictions in the North planning area have continuous sidewalks, although the majority were built before standards calling for five feet of clear width were instituted. In places, telephone poles, tree wells, sign posts and other obstructions block sidewalk access, which is inconvenient for most pedestrians and unsafe for wheelchair users and those pushing strollers. On average, road crossings are easier than in other parts of Alameda County, due to narrower arterials, slower

traffic, and improved pedestrian crossing facilities, such as countdown signals.



Berkeley, Oakland and Piedmont have extensive pathway and stairway networks, originally built to access transit. They provide pedestrian shortcuts, interesting walking opportunities, and a safe place to walk in hilly neighborhoods that often lack sidewalks.

Nearly half of all of Alameda County's disabled population lives in the North planning area. The City of Berkeley, in particular, has been an international pioneer in the field of accommodating people with disabilities and in disability rights. Berkeley was one of first cities in the nation to make improvements to sidewalks and crossings for people with disabilities. Many of the facilities that help create a good pedestrian environment are even more important for those with impaired vision or mobility than for able-bodied pedestrians.

Cities in the northern part of Alameda County typically have both narrower and slower streets than those found elsewhere in the County. Even San Pablo Avenue, Telegraph Avenue and International Boulevard, the area's primary inter-jurisdictional arterials, have only two lanes of traffic in each direction, frequent median refuge islands and curb-to-curb cross-sections of about 75 feet in most segments. Although this is a long distance for some to cross, it is less than the 100-foot (or more), six-lane crossings frequently found in the South and East planning areas.

Countdown traffic signals (which let pedestrians know how many seconds are left to cross the street), flashing crosswalks, high-visibility pedestrian crossing signs, and lengthened pedestrian signal phases are used in locations throughout the North planning area. Due to its development before the advent of post-WWII automobile-oriented design, most blocks in the North planning area are short compared to those found in the South and East planning areas. Although this translates into frequent crossing opportunities, it also creates a need for more ADA-accessible curb ramps.



With the exception of Emeryville, North area jurisdictions primarily cite sidewalk maintenance and code-compliant curb cuts as their highest pedestrian infrastructure needs. Emeryville's stated highest pedestrian-related infrastructure needs are the construction of three multi-use paths: the Emeryville Greenway, and pedestrian/bicycle bridges over I-80 near Ashby Avenue and over the Amtrak tracks near the Bay Street mixed-use development.

According to staff in North planning area cities, the Union Pacific/Amtrak railroad tracks and Interstate 80/880 pose the most formidable crossing barriers in Albany, Berkeley, Oakland, and Emeryville, while the City of Alameda's island status—and the extremely narrow Posey Tube path—challenge pedestrians trying to reach Oakland from the west end of the main island. The significant number of freeways in Oakland creates a large barrier to walking safety and access throughout the City. Other barriers to pedestrian travel in the North planning area include the perception of crime, older sidewalks that can pose a tripping hazard, and obstruction of sidewalks by unmaintained trees and shrubs.

CASE STUDIES



Berkeley Path Wanderers Association

The Berkeley Path Wanderers Association is dedicated to the creation, preservation and restoration of public paths, steps and walkways in Berkeley for the use and enjoyment of all. The Association publishes a map of Berkeley's system of 136 paths.

Marin Avenue Road Diet

In an attempt to slow vehicular traffic, improve pedestrian crossing safety, improve bicycle and motor vehicle safety, and reduce conflicts between moving traffic and parking vehicles, in 2005, the cities of Albany and Berkeley reconfigured Marin Avenue, from San Pablo Avenue to The Alameda. The project, which entailed restriping the street from four lanes to two plus a center turn lane, will undergo a one-year trial phase, at which point the project's effectiveness will be evaluated by both cities.



Pole-Mounted Radar Speed Signs

The City of Alameda has installed six permanent polemounted radar speed signs to remind drivers to respect posted speed limits. The signs indicate the approaching driver's speed, which flashes if

it exceeds the limit. Signs were installed in the vicinity of a school, a neighborhood commercial area, and a curve in the road where visibility is somewhat limited. The City is in the process of collecting data to analyze the signs' effectiveness, but anecdotal evidence indicates that the signs are having a positive impact.

Central Planning Area

A range of sidewalk conditions are represented in the Central planning area. San Leandro staff noted that, although there is a complete network of sidewalks, the City could be more conducive to walking by having wider and better-lit sidewalks and by having more shade trees. Hayward staff report some roadways without sidewalks and cite the need to inventory and install new sidewalks, particularly near schools. The unincorporated areas of the County have the biggest gaps in their sidewalk network, and County staff are working to close them, especially in the vicinity of schools.



Roadway crossings can be difficult in the Central planning area due, in part, to wider arterials with faster speeds. The presence of fewer pedestrians than in the northern jurisdictions also contributes to potential crossing hazards because motorists are less accustomed to seeing them.

Many pedestrian-scale neighborhoods are found in the central part of Alameda County. These neighborhoods are often surrounded by wide arterials carrying fastmoving traffic, making crossings difficult and in some cases, unsafe. San Leandro, Hayward, and the County are installing pedestrian countdown signals, flashing crosswalks, bulbouts, and other pedestrian facilities to improve the safety of these crossings. Local planners and traffic engineers throughout the Central planning area also cite the Union Pacific railroad tracks as a physical barrier to pedestrians, particularly those traveling in wheelchairs.

San Leandro is including wider sidewalks, street trees and improved lighting in all new Capital Improvement Program (CIP) projects, whenever possible. Hayward is encouraging walking from store to store by requiring new commercial buildings to be located with storefronts facing the street, and parking in the rear. Upcoming development in the downtown will be designed in this way. New sidewalks and other pedestrian improvements have recently been installed in the vicinity of a number of schools in the unincorporated communities of Ashland and Cherryland.

To mitigate the effect of warm summertime temperatures on pedestrians in this area, the planting of street trees is also a priority. Interestingly, although the U.S. Census reports that ten percent of the Central planning area's population is disabled—amounting to over 34,000 individuals—staff did not cite curb ramps, truncated dome ramp texturing or other features to assist people with disabilities as a priority, perhaps indicating that the jurisdictions in this planning area have done a good job of providing such facilities.

South Planning Area

Built primarily in the post-WWII era, South planning area streets were constructed with ample right-of-way for wide travel lanes, parking and sidewalks. With the exception of some of the industrial areas, most roadways in this planning area have adequate sidewalks; however, crossing wide arterials can be challenging. Residential cul-de-sacs lengthen the distance that pedestrians must walk, although Newark has a number of sidewalk shortcuts that allow pedestrians to access adjacent streets directly.

Although built with sidewalks, the roadway network in the South planning area has sometimes been designed to facilitate automobile movement at the expense of pedestrians. For instance, staff report that a number of intersections have only three marked crosswalks to prevent pedestrians from impeding high-volume left turns. This situation sometimes requires pedestrians to cross three streets rather than one, increasing their travel time and exposure to collisions.

With the exception of some of the industrial areas, most roadways in the South planning area have adequate sidewalks; however, crossing wide arterials can be challenging.

With the exception of the original communities of Newark, Union City, Centerville, Niles, Irvington, and Mission San Jose, and an assortment of trail opportunities, pedestrians in the South planning area face an environment that was built primarily for the automobile. Additional challenges to walking include hot summertime temperatures and a dearth of street trees, fast-moving traffic, and a development pattern that often locates shops and other businesses at the rear of large parking lots, far from residential areas.



According to local transportation engineers and planners, the predominant pedestrian infrastructure needs in this planning area are curb ramp upgrades and ongoing sidewalk maintenance. Interstate 880 is a more significant barrier to pedestrians, bicyclists and even motorists in Union City than in other parts of the County because only one road (Alvarado-Niles Road) crosses the freeway to provide access between the east and west parts of town. There are also a number of active railroad tracks with limited crossing opportunities that traverse the South planning area, which create particular hazards for pedestrians.

East Planning Area

Sidewalks in East planning area cities, like those in southern Alameda County, are generally adequate, although crossing major arterials with multiple lanes of fast-moving traffic often makes the pedestrian environment less than hospitable. All new development is required to build sidewalks, with the exception of rural Sunol, which lacks them on many roadways. This planning area experiences the highest summertime temperatures in Alameda County. City staff identified a lack of street trees, as well as the spread-out nature of development, as the two primary barriers to walking.

Outside of the original (and thriving) downtown districts of Pleasanton and Livermore, the East planning area's building placement and roadway system are similar to

what is found in the south planning area. However, the trail network is more extensive than perhaps anywhere in Alameda County. (The County's only three local trail plans were written for Dublin, Pleasanton and Livermore.) Local agency staff identify Interstates 580 and 680, and the Union Pacific Railroad tracks as three of the major barriers to pedestrian travel in Dublin, Pleasanton, and Livermore.



As Livermore continues to grow, staff cite keeping up with and implementing curb ramp standards as a constant challenge. The pedestrian emphasis in Dublin, Pleasanton and Livermore is focused on the downtown areas, their trail network, and ensuring the walkability of new development.

WALKING TO PUBLIC TRANSIT

PURPOSE

To describe bus, rail, and ferry service in Alameda County; to illustrate the quality of pedestrian access to public transit facilities throughout the County; and to document rates of walk access to bus and rail in each planning area.

KEY FINDINGS

- 1. In Alameda County, 90 percent of AC Transit bus passengers and 22 percent of BART passengers reach transit on foot.
- The ability to reach public transit service on foot is an essential requirement for walking to be a true travel
- 3. Improving walk access to bus stops and rail stations is a priority for the primary Alameda County transit operators, AC Transit and BART.

This section discusses walking to public transit throughout Alameda County. Bus stops, rail stations and, to a lesser extent, ferry terminals throughout the County are common pedestrian destinations. The ability to reach public transit service on foot is an essential part of the pedestrian experience because, by walking to buses, trains and ferries, pedestrians can travel far beyond their typical range. This is important for those, including people with disabilities, who prefer to travel without an automobile, as well as for those who have no choice. Improving walk access to bus stops and rail stations is a priority for the primary Alameda County transit operators—AC Transit and BART. Both agencies have recently published reports reinforcing the importance of pedestrians to the growth and success of their transit services. Like trails, pedestrian transit access involves agencies other than local jurisdictions—agencies with needs, design standards, and in some cases, funding streams of their own.

> The ability to reach public transit service on foot is an essential part of the pedestrian experience because, by walking to buses, trains and ferries, people can travel far beyond their typical

While there are an estimated 520,000 walk trips for various purposes in Alameda County each weekday,2 there are another 190,000 walk trips to and from AC Transit³ bus stops and 12,000 to BART stations.⁴ In addition, there are many thousands more walk trips to and from BART stations since the 12,000 figure captures only walk trips from home to Alameda County BART stations, but not other trips such as between BART and UC Berkeley, downtown Oakland destinations, and commuters' homes. (Since the smaller transit operators do not collect access mode information, and their combined ridership is a fraction of BART and AC Transit's, this analysis focuses on information provided by AC Transit and BART.)

San Francisco Bay Area Travel Survey 2000, Regional Characteristics Report, MTC, 2004. See Table 6 for more detail.

³ 2002 AC Transit Passenger Survey.

⁴ BART Station Profile Study, August 1999.

This section begins with an overview of the seven public transit agencies that serve Alameda County. Then, walking rates to AC Transit and BART are discussed, as well as the qualities of good transit access. Next is an overview of walk access to transit in each planning area, including transit-oriented development (growth designed to capitalize on proximity and orientation to public transportation facilities). Future plans for station improvements aimed at increasing the share of people accessing transit on foot is covered in the *Future Pedestrian Improvements* section of this chapter.

AC TRANSIT

AC Transit operates local buses within and transbay service from Alameda County, with the exception of the Tri-Valley area. The five corridors with the highest ridership and most frequent service—known as "trunklines"—primarily travel north/south through the flatlands of Albany, Berkeley, Oakland, Alameda, San Leandro and Hayward:



- San Pablo Avenue from Downtown Oakland to Albany and beyond
- International Blvd./E. 14th St from Downtown Oakland to Hayward
- Bancroft/Foothill/Shattuck/Telegraph from San Leandro to Berkeley
- Macarthur/40th St. from San Leandro and East Oakland to Emeryville
- University/College/Broadway in Berkeley/Oakland to Santa Clara St. in Alameda

In addition, the agency provides service to Union City, Newark and Fremont, commuter service into San Francisco, and operates feeder service in other neighborhoods throughout Alameda County. In Alameda County, 90 percent of AC Transit bus passengers and 22 percent of BART passengers reach transit on foot.

AC Transit has over 3,000 pairs of bus stops in Alameda County, with 106,000 daily linked trips. (A linked trip can include one or more transfers.) On-board passenger surveys show that 90 percent of AC Transit passengers walk to their first bus stop, which accounts for 95,000 of these trips.⁵

TABLE 3: PUBLIC TRANSIT OPERATORS IN ALAMEDA COUNTY

OPERATOR	Service Area
Alameda-Contra Costa Transit District (AC Transit)	Alameda County (with the exception of the Tri-Valley), Contra Costa County and San Francisco
Alameda/Oakland Ferry	Oakland and the City of Alameda to San Francisco
Altamont Commuter Express (ACE)	Tri-Valley and Fremont to the San Joaquin Valley and San Jose
Amtrak's Capitol Corridor	Berkeley, Emeryville, Oakland, Hayward, Fremont to Sacramento and San Jose
Bay Area Rapid Transit (BART)	Berkeley, Oakland, San Leandro, Hayward, Union City, Fremont, Castro Valley, and Dublin/Pleasanton to San Francisco, Contra Costa County, and the San Francisco Peninsula
Dumbarton Express	Union City, Fremont and Newark to the San Francisco Peninsula
Emery Go Round	Emeryville
Harbor Bay Ferry	City of Alameda to San Francisco
Union City Transit	Union City
Wheels	Dublin, Pleasanton and Livermore

Fiscal year 2002/03 Federal Transit Administration Section 15
Report Ridership data and 2002 AC Transit Passenger Survey
data. There are 180,000 weekday unlinked trips in Alameda
County, which translates to 106,000 weekday linked trips, based
on the system's average number of transfers.

ALAMEDA/OAKLAND AND HARBOR BAY FERRIES

The Alameda/Oakland Ferry carries commuters and tourists from Oakland's Jack London Square and the City of Alameda's Gateway terminal to San Francisco. A proposal is being considered to move the Gateway terminal to Alameda Point. Harbor Bay service also travels between Alameda and San Francisco, leaving from a terminal on the west side of the island. At present, these three are the only ferry terminals in Alameda County; however, plans are being developed to recommence service from Berkeley.

ALTAMONT COMMUTER EXPRESS (ACE)

The Altamont Commuter Express, as its name implies, is primarily a commuter rail service, which operates six trains—three westbound morning trains and three eastbound evening trains—from Stockton and Manteca through Alameda County and south to San Jose. ACE has two stops in Livermore and one each in Pleasanton and Fremont.

AMTRAK'S CAPITOL CORRIDOR

Capitol Corridor rail service operates between Sacramento and San Jose and has stops in Berkeley, Emeryville, Oakland, Hayward and Fremont. This service is provided by a partnership of Amtrak, BART and other agencies.



BART

The Bay Area Rapid Transit District—the region's primary rail service—operates trains throughout the central Bay Area, including service to Berkeley, Oakland, San Leandro, Hayward, Union City, Fremont, Castro Valley and Dublin/Pleasanton. BART's 1999 Station Profile Report (the most recent information source available) reports that walking is the second most

common method of reaching BART from home (at 22 percent, countywide), although this rate varies widely from 57 percent at the Downtown Berkeley station to one percent at Dublin/Pleasanton.

DUMBARTON EXPRESS

Dumbarton Express provides commuter express bus service over the Dumbarton Bridge from Union City, Fremont and Newark to the San Francisco Peninsula. Additional rail service is planned to complement these buses via the Dumbarton rail bridge.

EMERY GO ROUND

The Emery Go Round is a free shuttle, which carries 2,500 riders daily to Emeryville from MacArthur BART and Emeryville Amtrak train stations. Buses run every day, with a frequency of 10-12 minutes during weekday commute hours, and serve employment centers, shopping destinations, and residential areas.

UNION CITY TRANSIT

The City of Union City operates a small bus system that provides local access to AC Transit, BART and Dumbarton Express, with most transfers occurring at the Union City BART station. Union City Transit carries approximately 1,500 passengers per day.

WHEELS

WHEELS is the primary bus operator in the eastern portion of Alameda County. Its primary route carries 3,500 daily passengers to the Dublin/Pleasanton BART station from Livermore, Pleasanton and Dublin. Systemwide, it carries approximately 6,000 passengers. WHEELS is operated by the Livermore Amador Valley Transit Authority (LAVTA).

PARATRANSIT

In addition to these fixed-route operators, East Bay Paratransit provides transportation service to seniors and people with disabilities in the North, Central and South planning areas and serves the Dublin/Pleasanton BART station in East County. LAVTA and Union City Transit also provide specialized transportation for these populations within their respective service areas. Most cities in Alameda County provide complementary citybased paratransit, as well. The presence of these services gives disabled people a transportation option if walking or rolling to public transit is infeasible.

Walk Access to AC Transit

AC Transit's 2002 passenger surveys show that 90 percent of riders walk to their first bus stop. This figure is remarkably consistent throughout the agency's service area, in part because three-fifths of AC Transit passengers are transit-dependent, meaning that they do not have access to a car for that trip. In addition to AC Transit passengers' low auto ownership rates, the relative number of bus stops versus BART stations in Alameda County (3,000 pairs versus 19) is among the reasons why the walking rate for AC Transit access is so much higher than for BART. Alameda County residents are much more likely to live within walking distance of a bus stop than a BART station. Additionally, parking at bus stops is very limited, except for a few stops in the South and Central planning areas that are located at commuter park-and-ride lots.



TRANSIT STREETS

Transit streets are designated by local jurisdictions as priority bus routes where streetscape improvements and projects to reduce traffic congestion should not come at the expense of impeding bus service. Many designated transit streets are, in fact, historic transit (streetcar) routes, and therefore provide direct access to commercial centers. The cities of Berkeley and Oakland have designated a network of transit streets and the City of Alameda is considering doing so as they update their street classification system. To strengthen transit streets, cities are also making efforts to support infill development along these corridors.

BUS RAPID TRANSIT

Bus Rapid Transit (BRT) incorporates rail-like features to provide faster, more convenient service than is usually offered by conventional buses. These features include frequent runs, widely spaced stops, upgraded shelters with electronic bus arrival information and fare-vending machines, low-floor buses with multiple doors, traffic signal priority for buses and—where right-of-way is available—bus-only lanes or queue-bypass lanes at intersections.⁶

AC Transit is planning BRT on Telegraph Avenue, International Boulevard and East 14th Street in northern and central Alameda County. Because BRT bus stops would primarily be located in the center median of these busy arterial roadways, BRT development presents an opportunity to strengthen the concept of transit streets (see information at left) by using BRT investment in pedestrian crossing facilities to address pedestrian safety, thus transforming these streets into pedestrian-oriented corridors. Such improvements would be unlikely to otherwise occur due to the high cost.

⁶ East Bay Bus Rapid Transit: Designing State-of-the-Art Transit Service for the Future, AC Transit, 2005

CASE STUDY



Webster Street Renaissance Project, City of Alameda

AC Transit operates frequent bus service on Webster Street in the City of Alameda. In an effort to improve bus operations and pedestrian access to buses on this trunkline, the City worked with

AC Transit to design and construct a number of streetscape improvements, including elevated transit plazas, which allow bus riders to enter and exit the bus more easily, mid-block plazas to provide additional seating areas, corner extensions to reduce intersection crossing distances, as well as new trees, landscaping, street furniture and lighting.

The goal of these changes is to make bus stops feel more like light rail stops (thus increasing ridership), to bring disabled passengers up to bus floor level, and to add to the aesthetics and interest of Webster Street. Since some of the design elements do not conform to Caltrans standards, the City worked with Caltrans to remove a portion of Webster Street from the state route system.

Walk Access to BART Stations

Walking is the second-most common method of reaching a BART station, after driving. Of those accessing stations in Alameda County, 22 percent walked (compared to 26 percent for stations system-wide),7 a far higher rate than the countywide walk rate for all trips of 12 percent. As might be expected, this rate varies greatly among BART's 19 Alameda County stations. Table 4 shows that the Downtown Berkeley station, for instance, had a 57 percent walking share, whereas just one percent of passengers going to the Dublin/Pleasanton BART station walked.

TABLE 4: BART ALAMEDA COUNTY WALK ACCESS **TRIPS**

BART STATION	TOTAL HOME- BASED ENTRIES	PERCENT WHO WALKED	Number who Walked	
North Planning Area	34,180	29%	9,810	
North Berkeley	2,549	30%	765	
Downtown Berkeley	3,098	57%	1,766	
Ashby	2,755	46%	1,267	
MacArthur	3,685	27%	995	
19th Street	2,082	49%	1,020	
12th Street	3,956	29%	1,147	
West Oakland	3,116	11%	343	
Rockridge	3,052	32%	977	
Lake Merritt	2,104	32%	673	
Coliseum	2,576	7%	180	
Fruitvale	5,207	13%	677	
Central Planning Area	12,894	15%	1,876	
San Leandro	3,177	18%	572	
Bay Fair	3,393	14%	475	
Hayward	2,656	15%	398	
South Hayward	2,116	13%	275	
Castro Valley	1,552	10%	155	
South Planning Area	5,555	9%	517	
Union City	2,409	11%	265	
Fremont	3,146	8%	252	
East Planning Area	3,119	1%	31	
Dublin/Pleasanton	3,119	1%	31	
COUNTYWIDE	55,748	22%	12,234	

Source: BART Station Profile Study, August 1999

IMPROVING WALK ACCESS

Given that parking lots at most BART stations are full by 8:00 am and that new, structured spaces cost on the order of \$30,000 apiece to construct, in 2000 BART developed system-wide access targets that call for a shift in access modes toward walking, biking, and transit. Toward that end, the agency recently completed a study of the nine stations between Lake Merritt and Fremont, investigating the question of what factors influence an individual's

BART Station Profile Study, August 1999

decision to reach BART on foot.⁸ The study concludes, "Land use and parking will be the largest determinants of how people choose to access BART. Some of the many land use attributes which would contribute to BART ridership include:

- Clustered development;
- A mix of uses;
- Higher densities with more people living/working near BART; and
- A fine-grained street network allowing people to easily walk or bicycle to the station."



Like walking to the bus, an inviting walk to BART or other rail stations or ferry terminals does not require further infrastructure than that found in an average walkable community. Exceptions to this rule include way-finding signs and sidewalks that provide pedestrians safe and convenient access that avoids parking lots. Please see *Future Pedestrian Improvements* for a discussion of BART's plans to improve and increase walk access to Alameda County stations.

Two refurbished Alameda County BART stations— Hayward and Fruitvale—provide excellent examples of how land use and streetscape improvements can transform the pedestrian environment, making it much easier, safer and more pleasant for passengers to walk to the train.

HAYWARD BART

After the Loma Prieta earthquake, Hayward City Hall relocated to temporary accommodations outside of the downtown. In the early 1990s, the City of Hayward was

considering moving City Hall back downtown. Plans included a vibrant and walkable downtown, including a new City Hall, housing and retail opportunities. However, the BART parking lot stood on the land viewed as the logical pedestrian connection to BART.

The City eventually obtained the property, built a pedestrian plaza, and added two stories to the existing BART garage to replace the original lot. While all of the downtown development has not yet occurred, the redevelopment of the downtown and the associated streetscape improvements have enhanced the image of downtown Hayward, and have promoted walking.

FRUITVALE BART

The Fruitvale BART station is just two blocks from International Boulevard, the heart of Oakland's Fruitvale commercial district. The primary impediment to walking between International Boulevard and the Fruitvale BART station has historically been conflicts with vehicular traffic along surrounding corridors, and an inability to visually see the connections between the shopping district and the station.



After fifteen years in the planning, major construction was completed at the Fruitvale Transit Village in 2004. The new transit village is centered on a pedestrian plaza that is lined with small shops and restaurants extending from International Boulevard to the BART station. In addition, the City of Oakland has improved pedestrian crossing conditions on International Boulevard, and other

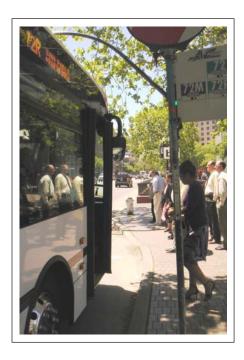
 $^{^{\}it 8}$ BART, A-Line Study Final Report, September 2005

local arterials with the installation of bulbouts, refuge islands, and other streetscape improvements. Further improvements are needed to address safety concerns of BART passengers entering the Fruitvale station from the north and west.

Walk Access to Transit in each **Planning Area**

NORTH PLANNING AREA

The North planning area has the most frequent and dense transit service in Alameda County. Although AC Transit serves the North, Central and South planning areas, the majority of its service is concentrated in the north. Bus stops tend to be most closely spaced here and AC Transit's five primary corridors (or "trunklines") either pass through or are wholly within this planning area. Almost all residential areas in the North planning area are within one-quarter mile of a bus line, except for some hill locations.9



Many of the AC Transit lines converge in downtown Oakland, reflecting the historic streetcar development pattern. AC Transit lines typically serve the eighteen BART stations in its service area, of which eleven are in the North planning area. Forty-five percent of AC Transit customers ride on these BART-serving routes.

Not surprisingly, more passengers travel to and from the North planning area as well: of the Alameda County bus stops with 500 or more weekday boardings and alightings, almost three-quarters are in the North planning area.¹⁰

All five of the BART system's lines serve the North planning area. On average, 29 percent of BART passengers in the North planning area walk to the station, compared to a countywide average of 22 percent. (See Table 4.)

The North planning area is home to four Capitol Corridor stations, Berkeley, Emeryville, and two stations in Oakland: Jack London Square and Coliseum BART. This is the only planning area in the County with ferry service: the Oakland/Alameda and Harbor Bay ferries which both serve San Francisco. The regional Water Transit Authority has plans to initiate service from Berkeley in 2010.

CENTRAL PLANNING AREA

AC Transit is the primary bus operator in the Central planning area. Three of the system's five trunklines serve locations such as the area's BART stations, Cal State University, East Bay and major shopping centers. Almost all residential areas in the Central planning area, except for some hill locations, are within one-quarter mile of a bus line.11 Five of the system's most heavily used bus stops—at the four BART stations and the University—are in the Central planning area, including three of the top

There are five BART stations in the Central planning area, two in each of the incorporated cities, San Leandro and Hayward, and one in unincorporated Castro Valley. On average, 15 percent of BART passengers walk to access these stations. The Capitol Corridor has one station in the Central planning area, located in Hayward.

SOUTH PLANNING AREA

Due to its proximity to Silicon Valley, the South planning area is served by a greater number of transit agencies than the rest of Alameda County, but this service is primarily limited to commute hours. ACE and the Capitol Corridor serve the Fremont's Centerville station,

AC Transit GIS data.

 $^{^{10}}$ Personal communication, AC Transit, 10-3-05

¹¹ AC Transit GIS data.

with future plans to serve the Union City Intermodal Station. Dumbarton Express operates buses between Union City, Newark, Fremont and employment centers on the Peninsula. Union City Transit provides feeder service to AC Transit, BART, and Dumbarton Express and has a daily ridership of approximately 1,575 passengers.



AC Transit and BART are the two primary operators in the South planning area. Three of the 43 AC Transit bus stops with 500 or more weekday boardings and alightings are in this area: Union City BART, the intersection of Fremont & Mowry, and Ohlone College. Although there are bus lines within one-quarter mile of most South planning area residents, 12 AC Transit reports that somewhat fewer AC Transit passengers walk to the bus here than elsewhere in the County. The number of free park and ride lots, lower residential densities, wider bus stop spacing, and other impediments such as subdivision walls that force would-be passengers to walk circuitous routes are all responsible for these lower walk access rates.

There are BART stations in Union City and Fremont, with a planned extension to southern Fremont that may eventually extend into Santa Clara County. Nine percent of South planning area BART passengers reach the station on foot, compared to the countywide average of 22 percent.

EAST PLANNING AREA

With the exception of paratransit trips to the Dublin/ Pleasanton BART station, the East planning area is the only portion of Alameda County that is not served by AC Transit. Livermore Amador Valley Transit Authority (LAVTA) operates WHEELS, a fixed-route bus service in Dublin, Pleasanton and Livermore, which in 2000 carried approximately 6,000 passengers per day. LAVTA does not collect mode-of-access information.

The ACE train serves Livermore and Pleasanton. In 2006, there was one BART station (Dublin/Pleasanton) in this planning area, which approximately one percent of BART passengers accessed on foot. Transit-oriented development projects are being planned for both sides of this BART station, in the cities of Dublin and Pleasanton. In addition, a new station in west Dublin is being planned, funded in a unique public/private partnership.

INTER-JURISDICTIONAL TRAILS

PURPOSE: To inventory paved inter-jurisdictional trails in Alameda County and to describe plans to extend and close gaps in the County's major trail systems.

KEY FINDINGS:

- Trails can provide: a means to reach destinations that are otherwise inaccessible; an alternative route to congested roadways; and an environment to walk for physical activity and to be closer to nature.
- 2. The major trail systems in the County are the San Francisco Bay Trail, which travels along the Bay shoreline through the North, Central and South planning areas, and the Iron Horse Trail in the East planning area, which links the Tri-Valley with Dublin, Pleasanton, and, one day, with Livermore.

Trails are an important component of the pedestrian environment in Alameda County. They can offer a way to reach destinations that are otherwise inaccessible, such as much of the San Francisco Bay shoreline; provide shortcuts through walled residential areas; and allow pedestrians to avoid walking along unpleasant roadways. Although on a multi-use trail pedestrians are more likely to encounter bicyclists and, in some parts of the County, even horses, walking on a trail is often quieter and closer to nature than sidewalk use.

Well-designed, well-sited and well-maintained trails can provide an excellent environment in which to walk for exercise, commute efficiently to work, walk a dog, push a stroller, visit with a friend or simply view the natural

¹² AC Transit GIS data.

surroundings. Trails in Alameda County hug the Bay shoreline, offering incomparable views of the Golden Gate Bridge and San Francisco, airplanes taking off at Oakland International Airport, salt ponds, and shorebirds and other wildlife. Many trails follow the myriad creeks that cross Alameda County on their way to the Bay. Trails follow rail corridors, both abandoned and in operation. And trails can sometimes provide alternate routes across major barriers such as highways.

In addition to many miles of local trails, Alameda County has an abundance of countywide and inter-jurisdictional trails. This section primarily focuses on paved trails that travel through and link urbanized areas in Alameda County, and the plans to extend and close gaps in these major trail systems.

The San Francisco Bay Trail

When completed, the San Francisco Bay Trail will be a continuous 500-mile bicycling and hiking path around San Francisco Bay, including 119 miles along the Alameda County shoreline (called the "spine"), and another 65 miles connecting the Bay Trail to other trails, transit, local destinations, and points of interest along the waterfront (see Table 5). Approximately 112 miles of the ultimate 185 mile Alameda County Bay Trail mileage is already in place, including long continuous segments in Albany, Berkeley, Emeryville, Oakland, Alameda, San Leandro and Hayward. According to the Bay Trail Project's Gap Analysis Study (September 2005), it will cost approximately \$94 million to design, permit and construct the remaining 72 miles of trail. Approximately \$47 million is anticipated to be provided by private developers, or as part of other transportation projects. This leaves an expected funding gap of \$48 million.

TABLE 5: PAVED INTER-JURISDICTIONAL TRAIL MILEAGE

San Francisco Bay Trail segments in Alameda County

COMPONENT	Existing	PROPOSED	TOTAL	DESCRIPTION
Spine	66.9	52.5	119.4	Main Bay Trail alignment, intended as a continuous recreational and commuter corridor encircling the Bay and linking the shoreline of all nine Bay Area counties.
Connector	23.8	9.8	33.6	Connectors link the Bay Trail to inland recreation sites, residential neighborhoods, employment centers, and public transit facilities, or provide restricted access to environmentally sensitive areas.
Spur	21.8	10.1	31.9	Spurs provide access from the spine to points of natural, historic and cultural interest along the waterfront.
Total	112.5	72.4	184.9	

Source: San Francisco Bay Trail Project, Association of Bay Area Governments

Trails in Alameda County operated and maintained by East Bay Regional Park District*

TRAIL	LOCATION	Existing	PROPOSED	TOTAL
Iron Horse Trail	Dublin, Pleasanton, Livermore	5.5	9.0	14.5
Alameda Creek	Fremont, Newark, Union City	12.0	0.0	12.0
Alamo Canal Trail	Dublin, Pleasanton	0.9	0.3	1.2
Tassajara Creek	East Dublin	1.5	1.6	3.1
	TOTAL	19.9	10.9	30.8

Source: EBRPD

Note: This table lists existing, regional, paved, multi-use trails that are operated and maintained by EBRPD and excludes approximately 21 miles of Bay Trail that are within EBRPD parklands and are operated and maintained by the Park District. All of these trails, plus many more, are included in the Park District's Master Plan 1997.

The Gap Analysis Study estimates that it will take up to 15 years to complete the trail through Alameda County. Once completed, the Bay Trail will stretch uninterrupted from the Albany Bulb, past the Berkeley Marina, the future Eastshore State Park, and the Emeryville Marina, provide access to the pathway on the new east span of the Bay Bridge, travel through Jack London Square, providing access to the ferry to San Francisco and the City of Alameda, travel along Crown Memorial State Beach in Alameda, by the San Leandro Marina and the Hayward Regional Shoreline, through Union City, across Alameda Creek, past Ardenwood Historic Farm in Fremont and into the San Francisco Bay National Wildlife Refuge. Bay Trail plans include providing connections to regional transit centers whenever possible, including the Coliseum and El Cerrito Plaza BART stations in Alameda County.



East Bay Regional Park District Trails

East Bay Regional Park District (EBRPD) is a California-designated special district, which functions as the park and recreation agency for Alameda and Contra Costa counties. In Alameda County, EBRPD operates and maintains 41 miles of regional paved multi-use trails (Class 1), approximately half of which is part of the San Francisco Bay Trail, discussed in more detail above. Approximately eighteen of the remaining twenty miles of trail is on the Iron Horse Trail in Dublin and Pleasanton and on the Alameda Creek Trail in Fremont, Newark, and Union City. Short trail segments along the Alamo Canal and Tassajara Creek Trail make up the remaining paved segments in Alameda County. Many more miles of both paved and unpaved regional trails are operated and maintained by local agencies.

IRON HORSE TRAIL

The Iron Horse Trail—built along the alignment of an abandoned railroad right-of-way—travels through central Contra Costa County and the Tri-Valley area, through Dublin to the Dublin/Pleasanton BART station. EBRPD has plans to extend the Trail south through Pleasanton and east through Livermore, and eventually to the San Joaquin County border. In 2006, construction began on an ACTIA-funded one-mile segment in the City of Pleasanton. When complete, the trail will run 35 miles in Alameda County, between the Contra Costa and San Joaquin county lines.



In 1997, the Park District surveyed trail users and people living within two blocks of Iron Horse Trail access points. Overall, two-thirds of respondents use the Trail for recreation, such as exercise or walking a dog, while the remaining third are traveling to work, school and doing errands. One-quarter of those surveyed were walking. Fifty-one percent of mailed surveys were returned and, of those, nearly all reported using the trail, with walking being the most common activity. This finding is consistent with national public health data that shows a high correlation between living near a trail and getting a higher than average amount of physical activity. (See Walking and Public Health section of this chapter.) Although all interview sites were in Contra Costa County, EBRPD staff presume that results are relevant for Alameda County Iron Horse trail-users as well. 13

ALAMEDA CREEK REGIONAL TRAIL

The Alameda Creek Trail follows the historic course of Alameda Creek for twelve miles between the Fremont

¹³ Iron Horse Regional Trail: Trail Use Study, East Bay Regional Park District, Summer 1997

foothills and the San Francisco Bay and the Bay Trail. This continuous multi-use path also passes by Newark and Union City. (The Creek itself has been diverted to a concrete flood control channel two miles to the south.)

Ohlone Greenway



The Ohlone Greenway runs from near downtown Berkeley, past the North Berkeley BART station, through Albany, to just past the El Cerrito del Norte BART station, with planned links to the San Francisco Bay Trail. The Trail, which was built on BART property after construction of the Richmond BART line and which consists of separate walking and bicycle paths through much of its length, is maintained by the local jurisdictions through which it passes. In 2005, the Safe Routes to Transit program funded the installation of permanent path lighting along the Greenway.

Union Pacific Railroad Right-of-Way

The Union Pacific (UP) Railroad right-of-way between Oakland and Fremont could eventually offer another inter-jurisdictional trail opportunity in Alameda County. This little-used freight corridor is adjacent to BART's aerial tracks and travels through Oakland, San Leandro, Hayward, Union City, and Fremont, terminating at the Fremont BART station. In 2006, MTC, BART and the Joint Powers Board, which operates Caltrain, were jointly developing a Regional Rail Plan to, among other things, determine the best use of this corridor. The Plan will consider if the right-of-way should be preserved for future rail service, if developing it as a trail is a better option or if both options could be implemented. In 2006, Urban Ecology began efforts to advocate for a trail in the BART or UPRR right-of-way.

CASE STUDIES

OHLONE GREENWAY TO BAY TRAIL CONNECTOR

The cities of Albany and El Cerrito (in Contra Costa County) are planning to complete a bicycle and pedestrian trail along Cerrito Creek from the Ohlone Greenway (near the El Cerrito Plaza BART station) to the Bay Trail and Eastshore State Park. In early 2006, the City of Albany was pursuing funding for a trail along Pierce Street to connect the Creek trail to the existing Buchanan Street bicycle/pedestrian ramp that leads to the San Francisco Bay Trail.

EMERYVILLE GREENWAY

The Emeryville Greenway will eventually be an inter-jurisdictional, combination multi-use path/sidewalk corridor for pedestrians, built adjacent to the increasing amount of residential housing. The Greenway extends from Berkeley's Ninth Street Bicycle Boulevard, and will connect, through the previously constructed Doyle Street portion of the Greenway, to 59th Street, which connects to the Amtrak bicycle/pedestrian overcrossing of the Union Pacific Railroad and Emeryville's commercial areas. In future years, the Emeryville Greenway will lead directly to the Bay Trail access on the new Bay Bridge East Span and to Mandela Parkway in Oakland.

WALKING DATA

PURPOSE: To present socio-economic characteristics of Alameda County residents relevant to walking, and walking rates by planning area.

KEY FINDINGS:

- 1. Median household income and average rates of automobile ownership in each planning area negatively correlate with walking rates, as would be expected.
- 2. Twelve percent of all daily trips (not including walkto-transit trips) in Alameda County, or 520,000, are on foot, higher than either regional or national averages.

There are two types of factors that influence a person's decision to walk:

- Characteristics of the environment, such as land use mix, densities, transit and parking availability, climate and, of course, pedestrian infrastructure and amenities, and
- Characteristics of the pedestrians themselves, such as income and automobile ownership.

Previous sections of this chapter have described the pedestrian environment in Alameda County. This section addresses the pedestrians themselves. Using demographic data provided by the 2000 U.S. Census, the first part of this section presents relevant socio-economic characteristics of Alameda County residents. The second provides walking rates in Alameda County.

Characteristics of Alameda County Residents

As shown in the *Pedestrian Environment* section of this chapter, walkability in the four planning areas varies considerably, with the North planning area containing more of the density, transit, and streetscape factors considered important for good pedestrian access, and fewer of such characteristics in the South, East, and to a lesser extent, Central planning areas. Interestingly, at least two measurable characteristics of the population in each planning area also indicate more walking in the North, and less in south, east and central Alameda County. Research has shown two demographic characteristics to be linked with walking rates: median income and automobile ownership rates.

Median Income

The extent to which people walk is often related to their household income. People with less income could be walking more because they cannot afford to own or operate a car (see below), but also due to other factors such as employment status and the corresponding lack of need to commute. Although Alameda County's median household income (\$56,000) is higher than the rest of California's and the nation's, it is lower than the Bay Area average.

At the planning area level, however, distinct differences are apparent: Median income is lowest (\$45,000 per year) in the North planning area. Median income in the Central planning area (\$55,000) is close to the County average. At \$75,000 per year, income in the South

planning area is second-highest in the county, well above the County average. Finally, median income is highest (\$80,000) in the Eastern planning area.

Automobile Ownership

Alameda County residents without access to an automobile are much more likely to walk and take public transit than their car-owning neighbors. (This phenomenon is most obvious with children, pre-teens and senior citizens.) The extent to which households in an area are car-free is often negatively correlated to income, particularly in communities with plentiful free parking. Put another way, except in areas of scarce parking and excellent public transit (Russian Hill in San Francisco, for example), high income areas usually have low percentages of car-free households. U.S. Census data shows that Alameda County is no exception: just as median income rises from the North planning area to the Central, to the South, and to the wealthiest planning area, the East, so does the rate of car ownership.



Walking Rates in Alameda County

After driving, walking is the second most popular mode for weekday trips in Alameda County. Of 4.4 million average daily trips in the County in 2000 (the most recent year for which data is available), twelve percent or 520,000 are on foot, higher than either regional (ten percent) or national (less than nine percent) averages. It is important to note that these figures do not include walk-to-transit trips, which would drive them

San Francisco Bay Area Travel Survey 2000, Regional Characteristics Report, MTC, 2004

National Household Travel Survey, daily trip file, U.S. Department of Transportation, 2000

significantly higher, given Alameda County's transit and walk-to-transit rates, which are both higher than the regional average.

After driving, walking is the second most popular mode for weekday trips in Alameda County.

Table 6 shows these trips by planning area and trip purpose. Walk-to-work trips, which are most often quoted because of the availability of commute data, constitute just three percent of all walk trips in Alameda County. In the North planning area, a higher proportion of trips for each purpose are on foot than in any of the other areas of the county. Central planning area walk rates are lower than in the North planning area, but are still slightly higher than in the South or East planning areas.

While work, shopping, social/recreational and non-homebased trips (such as going out to lunch during the workday or running an errand on the way home from work) generally follow this pattern, school trips diverge in some interesting ways. Over one-quarter of grade school students in the South planning area walk to school, higher than anywhere else in the County. There is no obvious explanation for the fact that such a high percentage of people walk to school in this area compared to walking for other trip purposes. Possibilities include the prevalence of neighborhood schools relative to other parts of the County, where busing may be more common, or the coincidence of walk-to-school events with the dates on which MTC conducted its surveys.

An equal proportion of North, Central and East area high school students walk to school (about one-fifth), while only 13 percent walk to high school in the South area. Twice as many college trips are made on foot in the North area as in the South or East areas (20 percent versus 11-12 percent) and more than three times as many college trips are on foot in the North area compared to the Central area. These rates are more easily explained than the grade school anomaly: whereas thousands of UC Berkeley students live within walking distance of campus, Cal State East Bay is located in a hillside neighborhood, accessible primarily by car and bus.

It is clear that high walking rates in the North planning area are partially attributable to the existing walking

environment in Oakland, Berkeley and its immediate neighbors.



With respect to the second set of potentially influential factors, characteristics of pedestrians, the Bureau of Transportation Statistics finds that the single most important predictor of an individual's walking rate is car ownership and that the highest walking rates occur in households without access to a car. Only 12 percent of those who have access to a car report walking for errands and personal business, while 46 percent of members of households with no car report walking for these types of trips. This difference is much higher than the difference attributable to income, ethnicity or density.¹⁶

Studies suggest that more people would be walking if neighborhoods were more walkable. Clearly, more research is needed to better understand the factors that spur Alameda County pedestrians to choose this form of transportation, including walking to transit, and how the pedestrian infrastructure in the County influences them.

Hu, Pat and Timothy Reuscher, "Summary of Travel Trends: 2001 National Transportation Household Survey" U.S. Department of Transportation, Federal Highway Administration, December 2004

TABLE 6: WALKING RATES

Alameda County Total Trips by Mode

Mode	Number	PERCENT
Auto	3,390,884	77%
Walk	525,718	12%
Transit	355,156	8%
Bicycle	92,685	2%
Other	60,341	1%
TOTAL	4,424,784	100%

Source: Bay Area Transportation Survey 2000 Trip Tables

Walk trips by purpose (number and percent of all trips that are on foot)

PLANNING AREA / LOCATION	Work	SHOPPING	SOCIAL/ REC	GRADE SCHOOL	High School	College	Non- Home- Based*	TOTAL WALK TRIPS
North	24,669	72,805	64,929	41,710	11,655	15,423	95,389	326,580
	6%	18%	20%	27%	20%	20%	21%	17%
Central	2,902	31,148	20,814	11,570	3,031	1,433	14,161	85,059
	1%	11%	13%	16%	20%	6%	8%	9%
South	2,586	16,624	10,819	26,919	3,059	3,046	6,607	69,660
	1%	7%	7%	29%	13%	11%	4%	8%
East	1,462	13,410	6,201	8,630	2,285	1,236	5,993	39,217
	1%	9%	6%	21%	19%	12%	5%	7%
Alameda County	31,619	133,987	102,763	88,829	20,030	21,138	122,150	520,516
	3%	12%	14%	25%	18%	15%	13%	12%
Bay Area	152,253	565,719	373,407	297,500	75,781	57,566	572,592	2,094,818
	3%	11%	11%	20%	16%	11%	13%	10%
National Average	3%							9%
San Francisco	12%							23%

Source: Bay Area Transportation Survey 2000 Trip Tables

Note: Percentages are percent of all trips. E.g., six percent of all trips to work in the North planning area are on foot. Therefore, percentages do not add to 100%.

^{*} Non-home-based trips are those that neither originate nor terminate at the traveler's home. Examples include walking to lunch from work or shopping on the way home from school.

WALKING AND PUBLIC HEALTH

PURPOSE: To present data about the relationship between walking and public health, in terms of obesity, disease, collisions with automobiles, and personal security.

KEY FINDINGS:

- 1. There is a strong connection between the lack of physical activity resulting from communities designed primarily for travel by auto and the negative health effects caused by physical inactivity.
- 2. In 2005, half of Alameda County adults were considered obese or overweight. However, the Alameda County population is generally "healthier" than the rest of the state.
- 3. The risk that a pedestrian might be hit by a motor vehicle is often lower at intersections with greater pedestrian volumes—even if those intersections experience more collisions.
- 4. Since 2000, 23 percent of all people killed in Alameda County traffic collisions were pedestrians.
- 5. Even without specific crime data, the perception of crime is a powerful deterrent against walking, particularly at night or in isolated areas.

The Role of Walking in Preventing Disease

In recent years, public health professionals and urban planners have become increasingly aware that the impacts of automobiles on public health extend far beyond asthma and other respiratory conditions caused by air pollution. In particular, there is now a much deeper understanding of the connection between the lack of physical activity resulting from communities designed primarily with cars in mind and the negative health effects caused by physical inactivity. Physical inactivity is now widely understood to play a significant role in the most common chronic diseases in the US, including coronary heart disease, stroke and diabetes-each of which is a leading cause of death in Alameda County. 17 In California, physical inactivity costs almost \$16 billion

annually in medical care, lost employee productivity and worker's compensation costs. 18

> Physical inactivity is now widely understood to play a significant role in the most common chronic diseases in the US, including coronary heart disease, stroke and diabetes-each of which is a leading cause of death in Alameda County.

Physical inactivity also strongly influences obesity and the tendency to be overweight, conditions that have increased dramatically over the past two decades. In 1985, less than ten percent of Californians were considered obese (measured by Body Mass Index, which translates to being approximately 30 pounds overweight for a 5'4" person). Twelve years later, more than fifteen percent of Californians were considered obese, and by 2001, more than twenty percent.¹⁹ In Alameda County today, over half of adults are considered obese or overweight.²⁰ Of the county's school children in three grades tested, 68 percent were not considered physically fit.21 If these trends continue, children born today in California will have a shorter a lifespan than their parents.22

> In Alameda County today, over half of adults are considered obese or overweight. Of the county's school children in three grades tested, 68 percent were not considered physically

Despite these numbers, today a higher percentage of adult Alameda County residents have what is considered

McKenna, M.T., Taylor, W.R., Marks, J.S., & Koplan, J.P. (1998). Current issues and challenges in chronic disease control. In: Chronic Disease Epidemiology and Control, (2nd Ed.). Brownson, R.C., Remington, P.L., Davis, J.R. (Eds.). Washington: American Public Health Association.

¹⁸ California Center for Physical Activity, 2005.

Centers for Disease Control & Prevention. Behavioral Risk Factor Surveillance System, 1985-2003.

UCLA Center for Health Policy Research, 2003. California Health Interview Survey.

Fitnessgram data, California Department of Education, 2005

²² A Kelter. (2005) "Which one is the big one?" California Department of Health Services presentation

to be a healthful weight and a higher percentage of adults report "walking for transportation, fun and exercise" than adults statewide. The percentage of the County's school children who fall within the "healthy fitness zone" for several health indicators is generally two-to-four points higher than for children statewide.

The public-health profession has begun to advocate for the creation of walkable neighborhoods as one of the most effective ways to encourage active lifestyles. Recent studies have found that people with access to sidewalks are more likely to walk and meet the Surgeon General's recommendations for physical activity.²⁵ Studies show that residents in highly walkable neighborhoods engage in about 70 more minutes per week of moderate and vigorous physical activity than residents in low-walkability neighborhoods,²⁶ and that 43 percent of people with safe places to walk within ten minutes of home meet recommended activity levels, compared to only 27 percent of those without safe places to walk.²⁷

By providing more opportunities to walk for transportation and exercise, transportation agencies can contribute to other public sector efforts to increase rates of physical activity and reduce medical costs in Alameda County.

Walking and Public Safety

COLLISIONS

Another dimension of public health and walking is pedestrian safety. Motor vehicle crashes account for more than half of all unintentional injury deaths in

UCLA Center for Health Policy Research, 2003. California Health Interview Survey. Alameda County.²⁸ Collisions, of course, have a disproportionate impact on the most vulnerable users of the transportation system, namely pedestrians (and also bicyclists). This is evidenced by the fact that 23 percent of all people killed in Alameda County traffic collisions are pedestrians, nearly double the 12 percent of all trips that are made by pedestrians in the County. (See Table 7.)

Since 2000, 23 percent of all people killed in Alameda County collisions were pedestrians, while just 12 percent of all trips in the County were on foot.

Over 90 percent of pedestrian-vehicle collisions in Alameda County are caused by violations of the California Vehicle Code. Fifty-nine percent of these code violations were committed by the driver; 33 percent by the pedestrian.

Between 2000 and 2004, there was no discernable trend in the number of pedestrians injured or killed in collisions with automobiles in Alameda County. (See Table 7.) The geographic breakdown of these collisions, however, shows a clear pattern. Collision numbers were highest in the North planning area—Oakland and Berkeley primarily—as were the percentage of total collisions. This should not be surprising, given the high populations of these two cities. A 2004 study of collisions at intersections by the UC Berkeley Traffic Safety Center, however, shows that the number of people walking must be considered when evaluating collision statistics. They showed that the traditional method of ranking the level of safety of an intersection according to the number of pedestrian-vehicle crashes has given an inaccurate picture of the actual threat posed to pedestrians at those intersections. By also taking pedestrian volumes into account—the number of pedestrians that use an intersection in a given period of time—the Center researchers found that, surprisingly, the "risk" that a pedestrian might be hit by a motor vehicle is often lower at intersections with greater pedestrian volumes-even if those intersections experience more collisions.²⁹

²⁴ California Department of Education, Fitnessgram, 2004.

Eyler, A.A., Brownson, R.C., Bacak, S.J., & Housemann, R.A. (2003). The epidemiology of walking for physical activity in the United States. Medicine & Science in Sports & Exercise, 35 (9), 1529-1536.

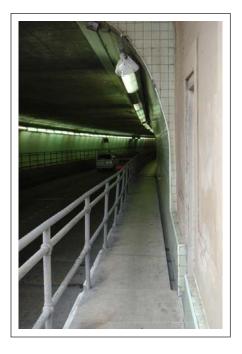
Saelens, B., Sallis, J.F., Black, J., et al. (2003). Neighborhood-based differences in physical activity: An environment scale evaluation. American Journal of Public Health, 93, 1552-1558.

Powell, K.E., Martin, L., Chowdhury, P.P. (2003). Places to walk: Convenience and regular physical activity. American Journal of Public Health, 93, 1519-1521.

Alameda County Health Status Report 2006, Alameda County Public Health Department.

Safety in Numbers, UC Berkeley Traffic Safety Center newsletter, Spring 2004.

When Alameda County collision figures are evaluated relative to the number of pedestrian commuters, the North planning area appears far less unsafe. In fact, the City of Berkeley goes from appearing to be one of the least safe Alameda County cities for pedestrians, to one of the safest (0.02 collisions per pedestrian commuter in Berkeley, compared to 0.04, on average, in the County as a whole).



Reported collisions tell only part of the story of pedestrian safety. The public safety impact of motor vehicles can be thought of as an iceberg, with deaths and hospitalized injuries representing the visible tip. Less obvious but far more numerous are the non-hospitalized injuries, especially those that go unreported, and the near-misses, which cause stress and anxiety. The result is often an unfortunate vicious cycle, in which even the perception of dangerous roads causes fewer people to walk. Smaller numbers of pedestrians are less visible and reduce the constituency for pedestrian improvements, which then keeps roads from being made safer for pedestrians.30

PERSONAL SECURITY

A related issue is the effect of threats to personal security—and the perception of such threats—on walking rates in Alameda County. Data on actual crime against pedestrians is extremely difficult to obtain. Such statistics are collected by almost 20 individual police departments countywide and there is no central repository for such information.

Even without specific crime data, the perception of crime is a powerful deterrent against walking, particularly at night or in isolated areas. Additionally, similar to the perception of unsafe streets, the perception of crime can lead to a vicious cycle of fewer people on the street, which makes people feel less safe, which results in even fewer people walking. Solutions which prevent these perceptions—such as trails and sidewalks that avoid isolating pedestrians, community design that draws out other pedestrians, and pedestrian-level lighting-can go a long way toward encouraging walking in Alameda County.

P. L. Jacobsen "Safety in numbers: more walkers and bicyclists, safer walking and bicycling" Injury Prevention, Sep. 01, 2003 9: 205-209.

TABLE 7: ALAMEDA COUNTY PEDESTRIAN COLLISION DATA (Continues on next page)

Source: Statewide Integrated Traffic Records System (SWITRS)

Pedestrians Killed and Injured

YEAR	PEDESTRIANS KILLED	Pedestrians Injured	TOTAL	TOTAL PEOPLE KILLED IN COLLISIONS*	PERCENT PEDESTRIANS KILLED
2000	25	723	748	114	22%
2001	24	775	799	111	22%
2002	28	847	875	112	25%
2003	23	752	776	113	20%
2004	29	690	719	103	28%
Total	130	3,787	3,917	553	23%

Total Pedestrian-Automobile Collisions

PLANNING AREA	Сіту	2000	2001	2002	2003	2004	Total ¹	Annual Avg	% OF TOTAL COUNTY COLLISIONS	COLLISIONS PER 1,000 POPULATION	COLLISIONS PER PED COMMUTER ²
	Oakland	345	335	384	355	348	1,767	353	44%	0.88	0.06
	Berkeley	126	108	139	134	109	616	123	15%	1.20	0.02
North	Albany	3	8	13	8	10	42	8	1%	0.51	0.03
North	Piedmont	2	3	4	0	1	10	2	0%	0.18	0.03
	Emeryville	6	15	8	4	8	41	8	1%	1.19	0.03
	Alameda	37	44	38	40	36	195	39	5%	0.54	0.04
	Subtotal	519	513	586	541	512	2,671	534	67%	0.88	0.03
	Unincorp'd	43	48	42	43	37	213	43	5%	0.74	0.09
Central	Hayward	80	69	78	65	65	357	71	9%	0.51	0.05
	San Leandro	46	37	37	20	33	173	35	4%	0.44	0.05
	Subtotal	169	154	157	128	135	743	149	19%	0.54	0.06
	Fremont	65	63	67	42	42	279	56	7%	0.27	0.05
South	Newark	13	10	13	7	4	47	9	1%	0.22	0.06
	Union City	15	17	16	19	10	77	15	2%	0.23	0.04
	Subtotal	93	90	96	68	56	403	81	10%	0.26	0.05
	Dublin	9	5	6	7	9	36	7	1%	0.24	0.04
East	Livermore	23	25	17	13	12	90	18	2%	0.25	0.03
	Pleasanton	7	5	15	10	12	49	10	1%	0.15	0.02
	Subtotal	39	35	38	30	33	175	35	4%	0.21	0.03
TOTAL		820	792	877	767	736	3,992	798	100%	0.58	0.04

¹ Totals are greater than in fatality/injury table because not all collisions result in injury and some injuries are not reported.

² Walk-to-work trip

TABLE 7: ALAMEDA COUNTY PEDESTRIAN COLLISION DATA (Continued from previous page)

Primary Factors for Pedestrian Collisions

PRIMARY COLLISION FACTOR	2000	2001	2002	2003	2004	TOTAL	PERCENT
(Vehicle) Code Violation	756	726	784	712	680	3,658	91%
Other Improper Driving	3	0	10	2	5	20	1%
Other Than Driver	7	9	13	9	7	45	1%
Unknown	44	40	45	27	33	189	4%
Fell Asleep	0	0	0	0	0	0	0%
Not Stated	10	17	25	17	11	80	2%
Total	820	792	877	767	736	3,992	100%

Detail of Code Violations

VIOLATION	Number	PERCENT
Pedestrian at Fault		
Pedestrian violation	1,180	31%
Auto right-of-way	66	2%
Ped - drugs or alcohol	34	1%
TOTAL PEDESTRIAN VIOLATIONS	1,280	33%
Vehicle at Fault		
Pedestrian right-of-way	1,415	37%
Other driver code violations	857	22%
TOTAL DRIVER VIOLATIONS	2,272	59%
Other/Unknown	288	8%
TOTAL VIOLATIONS	3,840	100%

FUTURE PEDESTRIAN IMPROVEMENTS

PURPOSE: To catalogue local and regional plans to improve walkability throughout Alameda County.

KEY FINDINGS:

- 1. The pedestrian environment in Alameda County, particularly in the vicinity of rail stations, is being improved through the work of local governments, transit operators, and regional agencies.
- 2. Just over half of Alameda County jurisdictions have adopted either a stand-alone pedestrian plan or a combined bicycle/pedestrian plan.

Increasingly, new development and roadway projects are improving the pedestrian environment. Developers, planners and traffic engineers are becoming more familiar with tools that are available to make communities safer and more inviting for pedestrians. Moreover, these professionals are finding new ways to monitor walking conditions to identify needed improvements, including pedestrian counts, routine analysis of pedestrian/vehicle collisions and monitoring pedestrian "trip and fall" reports. (See Appendix D.) In many locations, new advocacy groups are forming to demand that these changes occur.



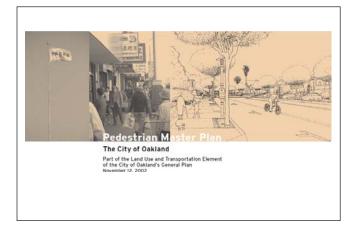
Behind all of these activities are local policies that support walking, adopted by most every Alameda County jurisdiction in recent years. Cities throughout Alameda County are focusing efforts on revitalizing and making their downtowns more walkable. Some cities with no central business district are literally creating them. These policies show that many local governments are paying attention to the importance of creating safe,

convenient and pleasant pedestrian environments. Some have gone further by developing design standards, specific plans and other policy-like instruments. Transit agencies are also taking steps that acknowledge the importance of pedestrians to their success.

This section contains an overview of the variety of planning efforts taking place throughout the County aimed at improving walkability. Particularly innovative locally adopted plans and broader planning efforts are highlighted. Note: Future trail planning efforts are discussed in the *Trails* section and a listing of which jurisdictions have pedestrian or pedestrian/bicycle plans appears in Table 8 in the *Countywide Priorities* chapter.

North Planning Area

The existence of planning documents to guide future improvements to the pedestrian environment varies in the North planning area. As of early 2006, the City of Oakland was the only northern city with an adopted pedestrian master plan, although the cities of Alameda and Berkeley are both developing such plans. Emeryville has an adopted bicycle and pedestrian master plan whose pedestrian emphasis is on a citywide greenway and multiple pedestrian/bicycle bridges over I-80 and the Amtrak railroad tracks. The cities of Alameda and Albany have adopted policies supporting the completion of their trail and pathway systems, particularly the San Francisco Bay Trail. And Piedmont's emphasis is on maintaining its sidewalks and pathways.



On the ground, efforts to improve walkability in the North planning area are, broadly speaking, primarily focused around public transit facilities. Local governments in Berkeley and Oakland are actively working with BART to create compact, mixed-use, pedestrian-friendly communities adjacent to every BART

station in the Northern planning area, with the exception of North Berkeley. Bus stop and other streetscape improvements are also taking place along AC Transit's San Pablo Avenue Rapid Bus corridor as well as future Bus Rapid Transit (BRT) routes on Telegraph Avenue and International Blvd. One area of emphasis for the City of Alameda is the new development that will eventually occur at Alameda Point, the former Naval Air Station and future ferry terminal site.

In recent years, BART has commissioned station access plans for the majority of Alameda County stations, including the Lake Merritt, West Oakland, Fruitvale, Coliseum, and San Leandro stations. In addition, at seven of the North planning area's BART stations, local governments are planning improvements to conditions for pedestrians accessing these stations:

DOWNTOWN BERKELEY BART PLAZA REDESIGN

The plaza at the downtown Berkeley BART station is being redesigned to be more inviting to BART passengers and other pedestrians in downtown Berkeley.

ASHBY BART ED ROBERTS CAMPUS TRANSPORTATION ENHANCEMENTS

The Ed Roberts Campus, a transit-oriented development designed to serve disability rights and services organizations, will improve safety and access to the east side of the Ashby BART station area for pedestrians, bicyclists, and people with disabilities.



MacArthur Transit Village Project

MACARTHUR TRANSIT VILLAGE PROJECT

The proposed project includes 800 units of high-density, mixed-income multi-family housing, 30,000 square feet of ground floor neighborhood-serving retail, community space, a new public street from Telegraph Avenue, renovation of the BART entry plaza, a new intermodal area, and a new public plaza adjacent to the retail space.

DOWNTOWN OAKLAND ENHANCED PEDESTRIAN LINKAGES

Funded with Oakland Measure DD funds, this project will improve the pedestrian environment between the 12th and 19th Street BART stations and Lake Merritt.

STREETSCAPE IMPROVEMENTS WEST OF THE LAKE MERRITT STATION

This project will improve walkability on Oak Street between the BART station and the new residential neighborhoods west of I-880.

WEST OAKLAND TRANSIT ORIENTED DEVELOPMENT

In 2006, work had begun on the West Oakland Transit Village Action Plan, which ultimately calls for streetscape improvements to 7th Street, over 2,000 residential units and 2,000 square feet of retail in the next five years.

COLISEUM TRANSIT-ORIENTED DEVELOPMENT

A financial feasibility and market study were underway in early 2006 for 500-600 residential units, with ground floor, neighborhood-serving retail on the Coliseum BART parking lot site. Coliseum Gardens-under construction in 2006—will provide 250 affordable rental units and a five-acre park. In early 2006, San Leandro Street was undergoing streetscape improvements in the vicinity of the BART station. Connections from Coliseum BART to the Bay Trail are also being planned.

Central Planning Area

Upcoming pedestrian improvements in the Central planning area will occur in the downtown districts of San Leandro and Hayward, at four BART stations (San Leandro, Bay Fair, Hayward and South Hayward), along future Bus Rapid Transit on East 14th Street, and around schools.

In 2004, the City of San Leandro adopted a Bicycle and Pedestrian Master Plan and companion design guidelines. As a result, San Leandro has designated six "Pedestrian Improvement Areas" where wider sidewalks, bulb-outs and pedestrian amenities are planned. These efforts focus on improving crossings for pedestrians and increasing driver awareness of nonvehicle traffic. The County adopted a Pedestrian Master Plan for the unincorporated areas in July 2006. A number of recent specific planning efforts in the unincorporated portions of Central County area pay particular attention to pedestrian improvements in the vicinity of schools.

The City of Hayward reports that they would like to encourage pedestrian and bicycle access to schools, but have had difficulty competing for State Safe Routes to Schools funding because school districts have not had funding available to prepare the requisite Safe Routes to Schools plans. The cities of San Leandro and Hayward are also working on projects to improve walkability around the cities' four BART stations, as described below.

CENTRAL SAN LEANDRO BART STATION

In 2001, the City of San Leandro adopted the Central San Leandro BART Station Area Revitalization Plan and has since been pursuing a variety of streetscape improvements and considering possible new development on selected sites around the station. A specific planning effort was underway in 2006 to create a transit-oriented strategy for downtown San Leandro, future BRT service on East 14th Street, and the nearby BART station.

BAY FAIR BART

Recent changes in Bay Fair Mall's ownership are improving the possibility of development of the BART property. Ultimately, a vibrant mixed-use commercial center is envisioned, with transit-oriented retail, future housing opportunities, and enhanced public spaces. Meanwhile, the Alameda County Redevelopment Agency is leading the implementation of new pedestrian improvements, including sidewalks, crosswalks, lighting and other elements in the neighborhoods surrounding the station.³¹

CASE STUDIES



Revive Chinatown-Phase I

Oakland's Pedestrian
Master Plan identified
Chinatown as having the
highest concentration of
pedestrian/motor vehicle
collisions in the City of
Oakland. This data led
the City to target
improvements at 16
contiguous intersections
centered on the core of
Chinatown, including
scramble traffic signals,
which provide a dedicated
phase when all motor

vehicles stop and pedestrians are allowed to cross in all directions; bulbouts; pedestrian countdown signal heads; high visibility crosswalks; streetscape improvements; and way-finding signage to BART.



Alameda Point, City of Alameda

The City of Alameda is planning to redevelop 700 acres of the former Alameda Naval Air

Station, located on the northern tip of the island. The Preliminary Development Concept calls for a transitoriented, pedestrian friendly community, including 1,800 new mixed income housing units, neighborhood-serving, small scale commercial services, day care centers, places of worship, and other neighborhood and civic uses within a five minute walk of each home. A Town Center will include a transit center, providing regular ferry service to San Francisco, bus service to Oakland and BART, and car-share and bicycle facilities. Most new homes and businesses will be located within a ten minute walk of the transit center. New Bay Trail segments will also be constructed.

³¹ http://bart.gov/docs/planning/BAY_FAIR.pdf

HAYWARD BART

The City of Hayward is working to develop a long-range plan for transit-oriented development within a 120-acre area immediately to the west of the BART station. The plan establishes a framework for the transformation of this older industrial area into a new transit-oriented community.32

CASE STUDY

CREATING AN INTEGRATED STRATEGIC VISION FOR THE **EDEN AREA**

The Eden Area is comprised of the central County unincorporated communities of Ashland, Castro Valley, Cherryland, El Portal Ridge, Fairmont Terrace, Fairview, Hayward Acres, Hillcrest Knolls, Mt. Eden and San Lorenzo. With the assistance of local leaders, residents of this subregion have initiated a process to develop a community vision, increase community participation in political decisions, and develop a stronger sense of place and identity so that the area can be easily recognized by others seeking to locate businesses, shop, socialize, or otherwise invest in the community. The planning phase of this initiative is expected to be completed in early 2007.

SOUTH HAYWARD BART

The City of Hayward, working closely with BART, is preparing a conceptual design plan for the South Hayward BART/Mission Boulevard area. The study will investigate development opportunities within walking distance of the station to encourage transit-oriented development, particularly on vacant and underutilized properties. The study will result in the development of a conceptual design that illustrates how future redevelopment could be compatible with the surrounding neighborhoods. The concept plan will be sufficiently detailed to provide a framework for reviewing private sector development proposals and public agency capital improvements and related activities.

South Planning Area

Pedestrian planning in southern Alameda County is concentrated in Union City and Fremont. Both cities have adopted policies that call for continuous pedestrian networks. Union City's Pedestrian and Bicycle Master Plan is expected to be completed in 2006. The City of Fremont is developing its first pedestrian master plan, expected to be completed in 2007.

Union City Intermodal Station

Efforts to improve pedestrian conditions in both cities are focused at transportation facilities, although Fremont is also planning to improve walkability in its downtown. The City of Union City is planning extensive land use and pedestrian infrastructure changes to its BART station, which will be served by BART, Capitol Corridor rail, AC Transit, Dumbarton Express, future Dumbarton Rail, and Union City Transit. The first phase of this project will reconfigure the BART property for transitoriented development and to improve access for pedestrians and other BART passengers, including 15foot wide sidewalks and reconfiguration of the west side of the station. Upon completion, a grade-separated pedestrian connection will link BART to adjacent development sites, the passenger rail station, and a public plaza on the east side of the Intermodal Station. Construction is expected to begin in 2007.

FREMONT DISTRICT PLANNING

Fremont is concentrating planning efforts on four districts: its downtown and the Centerville, Irvington and Niles districts. The City's 20-year plan for the downtown, adopted in 2001, includes reducing the number of traffic lanes on arterials in the area and shortening blocks by building new intersecting roadways, in an effort to create an inviting pedestrian environment. The 2004 Niles Concept Plan covers the area around a historic rail depot, while a future BART station is envisioned in the 2004 Irvington Concept Plan. The Centerville Specific Plan calls for a pedestrian-scale future at this operating Capitol Corridor/ACE station.

NEWARK'S "OLD TOWN"

Given sufficient redevelopment funds, the City of Newark would like to reconfigure its "Old Town" along Thornton Avenue with a narrower street and wider sidewalks.

http://bart.gov/docs/planning/HAYWARD.pdf

East Planning Area

Like much of Alameda County, pedestrian improvements in the East planning area are focused at BART station areas and downtown districts.

DUBLIN/PLEASANTON TRANSIT CENTER

Dublin and Pleasanton are working independently to intensify development north and south of the Dublin/Pleasanton BART station respectively. Dublin is planning a large transit-oriented development on the north side of the station, which will include 1,800 residential units (at net densities up to 70 units per acre), 70,000 square feet of ground floor retail, and two million square feet of campus office. Extensive pedestrian facilities will join this new development with the BART station. Construction began in early 2006.



HACIENDA TRANSIT ORIENTED DEVELOPMENT

The City of Pleasanton, East Bay Community Foundation, BART, the

Hacienda Business Park Owners Association and the citizens of Pleasanton are developing a specific plan for the area between the Hacienda Business Park and the south side of the Dublin/Pleasanton BART station in which a mix of transit-supportive land uses, densities, and development patterns is envisioned in a highly walkable place with meaningful public opens space and plazas.³³

WEST DUBLIN/PLEASANTON BART STATION

The cities of Dublin and Pleasanton are working with BART and a private developer on plans for a new BART station in the I-580 median, west of the existing Dublin/Pleasanton station and the I-580/680 interchange. Plans for the station, which will be funded through a unique public/private partnership, call for transitoriented development to link the station to the Stoneridge Mall to the south and to a new, walkable downtown Dublin to the north.

DOWNTOWN LIVERMORE AND PLEASANTON

Livermore is using its 2004 Downtown Specific Plan and companion Design Standards and Guidelines to guide pedestrian improvements in the downtown. Up to 3,000 higher density residential units are planned for the downtown area, near the ACE station. Also, discussions are underway to extend BART service to Livermore, although neither the technology, alignment, nor the station location has been agreed upon. Pleasanton's 2002 Downtown Specific Plan and 2003 Downtown Design Guidelines are spurring improvements there.

Regional & Countywide Planning Efforts

In addition to local efforts in each planning area, are regional efforts that seek to influence walkability throughout Alameda County. The Alameda County Congestion Management Agency is channeling county set-aside Transportation for Livable Communities funding to eight transit-oriented development projects at existing and future BART stations: Ashby, MacArthur, West Oakland, Coliseum, San Leandro, Union City, Warm Springs, and Dublin/Pleasanton.

In 2006, the Metropolitan Transportation Commission completed a Pedestrian Districts Study, which reviewed pedestrian planning in the Bay Area, developed a typology of pedestrian districts, presented case studies of Bay Area pedestrian districts, developed cost estimates for typical pedestrian improvements, defined next steps for MTC in the pedestrian realm, and made recommendations for updating MTC's Regional Pedestrian Resource Guide. Also, MTC's Regional Pedestrian Committee, established in 2001, facilitates information-sharing between public agency staff and pedestrian advocates from around the region, and advises MTC staff on pedestrian-related projects. Finally, the agency's Transportation 2030 Plan calls for the development of a regional pedestrian plan.

MTC is increasingly making funds available for projects that encourage walkability, in an effort to reduce the number of automobiles on Bay Area roads. These efforts generally involve inducements to local governments to increase residential densities, create a mix of land uses, and improve the pedestrian environment surrounding the region's major transit stops and stations.

MTC's new transit-oriented development policy, approved in 2005, conditions rail extension funding on minimum residential densities at new stations, the first

³³ Hacienda Transit Oriented Development Specific Plan Scope of Work

such policy in the nation. In addition, the agency's new Station Area Planning Program funds local planning efforts aimed at increasing densities and improving walkability within a half-mile of bus, ferry and rail stations. Three of the first eight grants were awarded to Alameda County cities (San Leandro, Alameda, and Pleasanton), with ACTIA providing matching grants.

PROGRAMS AND ADVOCACY TO **ENCOURAGE WALKING**

PURPOSE: To provide examples of promotional, educational, and technical assistance programs that encourage walking and walkable communities.

KEY FINDINGS:

- 1. In addition to good pedestrian infrastructure, programs and advocacy efforts to encourage walking and the improvement of the pedestrian environment are needed.
- 2. There are many existing programs and program models in Alameda County that target school children, the elderly and disabled communities, drivers, and those who walk for exercise.
- 3. There are only a few pedestrian advocacy groups in Alameda County, but those that exist are working to encourage local governments to improve the walking environment.

Programs

As important as pedestrian infrastructure is, sometimes an inviting physical environment is not enough to persuade people to walk. It is for this reason that local governments, nonprofit organizations and others increasingly offer programs aimed at getting people to walk for exercise and transportation.

SCHOOL CHILDREN

Each October, school districts as well as city and county governments across Alameda County organize events in honor of International Walk to School Day and Week. Berkeley, Oakland, the City of Alameda, San Leandro, Livermore and Alameda County reported such efforts in their local schools. Some cities, such as Alameda and San Leandro use education kits provided by the Bay Area Air Quality Management District to organize Walk and Roll to School Days where elementary, middle school and

high school students who may normally be driven, get to experience walking to school.

Safe Moves traffic education program (a branded, educational program available for a fee) is offered to over 8,500 students at 16 Fremont schools. All children are taught how to be safe pedestrians, while high school students are also taught how to be aware of pedestrians when they drive.

AUTOMOBILE DRIVERS

The perception that it is safer to be inside a car than to risk being hit by one as a pedestrian deters at least some walking trips. A number of innovative efforts are aimed at improving drivers' awareness of the presence of nonmotorized traffic, as described below.

The cities of Alameda, Oakland and Berkeley police departments routinely conduct sting operations to ticket drivers who fail to yield to pedestrians.

Go Safe and Slow in San Leandro is a public education campaign that targets drivers, parents, children and pedestrians. Pleasanton's Economic Development Department works with local employers to encourage walk commutes as part of their Commendable Commutes program, part of the City's trip reduction program. Promotional materials for the program state that less traffic congestion and better air quality contribute to the attraction and retention of employees and customers, and are important for businesses which depend on freeway transport of goods.

SENIOR CITIZENS

There are a number of walk encouragement programs tailored to senior citizens throughout Alameda County. These are focused on exercise, safety and education. Most of these—including Dublin's Tri-Valley Treckers, Emeryville's One More Step Walking Club, walking clubs started by United Seniors of Oakland and Alameda County (USOAC), and Union City's Walkers' Group organize and lead walks for senior citizens. USOAC holds an annual walk event at Lake Merritt.

WALKING FOR PHYSICAL ACTIVITY

Like senior citizen walks, other programs throughout Alameda County increasingly involve guided walking groups. Civic leaders in the City of Alameda lead onehour Saturday walks as part of Alameda Walks! San Leandro's Recreation Department offers walking tours of the City's historic districts and buildings. Walk

Oakland...for Life!, Walk Cherryland and Walk Ashland help neighborhood groups form walking clubs, and Union City's Stroller Striders encourages the mothers of young children to walk.

Kaiser Permanente sponsors *Thrive*, a marketing and public education campaign aimed at encouraging adults to walk for exercise. This effort is unique in that it is privately funded and seeks to change behavior.

TECHNICAL ASSISTANCE

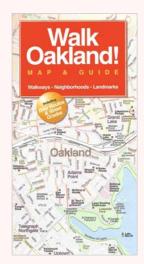
Some programs are aimed at improving the pedestrian environment, rather than directly encouraging people to walk. Such programs target traffic engineers, planners, elected officials and others responsible for improving the physical environment.

In 2005, the Alameda County Public Works Agency held a pedestrian planning workshop for its staff, and also invited traffic engineers from jurisdictions throughout the County. Caltrans and the California Department of Health Service jointly fund a program that trained seven people in California to be "Walkability Experts." Local jurisdictions can hire one of these professionals to help groups of city staff and others—including engineers, planners, police officers, fire-fighters, school district officials, senior center staff, transit providers, elected officials, and community-based groups—identify ways to improve the pedestrian conditions in a particular neighborhood. Typical day-long sessions include a presentation of pedestrian planning principles, a walking tour of the neighborhood, a group mapping and actionplan development activity, and tools to identify probable funding sources. In 2003, Cherryland and East Oakland took advantage of this program.

Advocacy

By working to encourage government to improve the walking environment, advocacy goes beyond programs that offer Alameda County residents the opportunity to get more exercise. In the past 20 years, bicycle advocacy has grown from a few clubs complaining about potholes to literally hundreds of nonprofit organizations at the city, county, regional, state and national levels. If there are many times more pedestrians as bicyclists, why is pedestrian advocacy still in its infancy?

CASE STUDY



Walk Oakland! Map & Guide

The Walk Oakland! Map & Guide highlights the City's historic walkways, neighborhoods, and landmarks to raise awareness and encourage walking in Oakland's many great places. The map includes bikeways, street grades, parks, schools, libraries, and post offices, as well as information on

pedestrian and bicyclist safety, city resources, and area transit. The map is available at local bookstores and bike shops throughout Oakland.

The needs of pedestrians are often associated with, yet overshadowed by, those of bicyclists. Since everyone is a pedestrian (even drivers have to walk from their parking spaces), not many identify themselves as part of a group that requires support. Related to this is that walking is not commonly seen or understood as a mode of travel. Finally, most people do not identify themselves as a pedestrian, since no special equipment is needed to walk.

Notwithstanding these challenges, pedestrian advocacy in general is growing. There are very strong groups in San Francisco and Sacramento and a few notable organizations are working throughout Alameda County, the Bay Area, and statewide.

Alameda County

Bicycle/Pedestrian Advisory Committees

Four Alameda County cities—Berkeley, Oakland, Emeryville and Fremont—have appointed committees to advise them on matters that affect walking and biking in their cities. (Only Berkeley's Pedestrian Subcommittee to the Transportation Commission deals solely with pedestrian issues.) ACTIA has a Bicycle/Pedestrian Advisory Committee, as well. MTC's Regional Pedestrian Committee focuses only on pedestrian issues. Although these groups are considered to be advisors rather than advocates per se, in the absence of

widespread advocacy, they may take on the traditional role of advocacy organizations.

Oakland Pedestrian Safety Project is a project of the City of Oakland to promote pedestrian safety and access by working with city agencies and community-based organizations to develop comprehensive solutions to pedestrian problems. OPSP has been responsible for multiple neighborhood pedestrian advocacy and improvement projects, Walk-to-School events since 1998 (at least one year at every school in Oakland), the Walk Oakland! Map & Guide, and the first Pedestrian Plan in the State.



Walkable Neighborhoods for Seniors

This program, sponsored by United Seniors of Oakland and Alameda County, works to

increase pedestrian safety and walking for older adults by identifying barriers and advocating for and implementing identified solutions. Their activities include leading six walking clubs, holding an annual Walkable Neighborhoods for Seniors workshop, and educating the public about the special needs of senior pedestrians.

Walk and Roll Berkeley seeks recognition of walking as transportation, improvement of the walking environment, safer walking, and increased rates of walking in the City of Berkeley. The group was instrumental in the City's decisions to develop a Pedestrian Plan and to form a Pedestrian Subcommittee of the Transportation Commission, and the City's ongoing effort to assess and complete safety improvements at Berkeley's 25 most dangerous intersections.

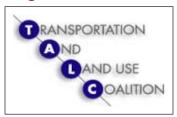


Pedestrian Friendly Alameda is dedicated to making the City of Alameda a safe and enjoyable place to walk by advocating for projects and programs that improve pedestrian safety, access, and convenience. Pedestrian Friendly Alameda develops pedestrian and motorist education programs, helps coordinate Walk & Roll to

School Day events, and works with the City of Alameda to develop pedestrian design standards and support funding for pedestrian improvements.

Albany Bicycling and Walking is an online advocacy group that formed in 2004 to address walking and bicycling in the City of Albany.

Regional Level



Great Communities Initiative is sponsored by the Transportation and Land Use Coalition, an Alameda County-based nonprofit. The goal of the program is to ensure

that half of all new homes built by 2030 are in walkable communities located near transit, at a range of prices affordable to families of all income levels, by partnering with local advocates and decision-makers.

BayPeds

Formed in 1999, BayPeds is the region's first pedestrian advocacy organization. BayPeds was instrumental in attracting Office of Traffic Safety grants for pedestrian projects to the Bay Area and in nurturing the formation of numerous Bay Area walk organizations.

Bay Area Walkable Communities Collaborative was formed in 2004 to bring together professionals in the fields of public health, transportation, land use, education, law enforcement, recreation, with pedestrian advocates and elected officials. As of early 2006, the group was building support for a Bay Area-wide Pedestrian Plan, as part of the Regional Transportation Plan.

State & National Levels

California Walks is a coalition of local and other nonprofit pedestrian advocacy groups promoting walkable communities throughout California.

California Pedestrian Advisory Committee (CalPed) is a standing committee of transportation professionals and pedestrian advocates that advises Caltrans on issues involving pedestrian safety and mobility in California. An example of their work is making recommendations to modify the State Traffic Collision Report form (CHP 555) by increasing the detail on traffic control type, crosswalks, and geo-referencing.

America Walks is a national coalition of advocacy groups dedicated to promoting walkable communities.

CONCLUSIONS

The Alameda County pedestrian environment varies from dense, highly walkable downtown districts to high-speed, sometimes dangerous arterial crossings and urbanized streets with no sidewalks. Overall, though, the County and each of the 14 cities provide adequate sidewalks and other basic pedestrian facilities. In addition, residents in many areas have access to extensive trail networks.



Encouragingly, Alameda County jurisdictions are in the midst of a pedestrian renaissance, in which no new development is approved without sidewalks, pedestrian crossing times are being extended to accommodate slower walking rates, and walking is a focal point of most all development and redevelopment efforts.

This changing environment offers a number of opportunities to influence walkability throughout Alameda County from the countywide level.

Pedestrian plans

Few Alameda County jurisdictions have developed stand-alone pedestrian plans and so have not taken the opportunity to envision and prioritize desired improvements. Such plans—including companion streetscape design guidelines—should be a funding priority.

Basic infrastructure

Local planning and engineering staff cite a shortage of funding that can be used to build new sidewalks and curb ramps and to maintain the existing pedestrian infrastructure. Although a number of jurisdictions use Measure B local set-asides for this purpose, other funds could be invested in this area.

Bus access

Although over 190,000 daily walk trips are to and from bus stops, Alameda County jurisdictions are investing very little in safe pedestrian routes to these locations.

Transit station areas

A great deal of federal, state, regional and local funding is pouring into rail and ferry stations in Alameda County. Nonetheless, there remains a need for additional funds to realize the myriad projects being planned.

Programs

The visibility and, perhaps, effectiveness of efforts to encourage walking could be boosted with the creation of countywide programs to encourage walking and provide education on pedestrian safety.

There is no shortage of opportunities to help improve Alameda County's pedestrian environment. However, because funding alone will not be sufficient to improve walkability, the following chapter discusses other institutional obstacles to improving walkability and potential solutions to these challenges.