




Mountain View
Pedestrian Master Plan

Updated January 2014

CITY OF MOUNTAIN VIEW

THIS PAGE INTENTIONALLY LEFT BLANK

Acknowledgements

CITY COUNCIL
Christopher R. Clark, Mayor
John McAlister, Vice Mayor
Margaret Abe-Koga
Ronit Bryant
John M. Inks
R. Michael Kasperzak, Jr.
Jac Siegel

CITY MANAGEMENT
Daniel H. Rich, City Manager
Michael A. Fuller, Public Works Director

PROJECT STAFF
Linda Forsberg
Helen Kim

CONSULTANT
Nelson\Nygaard

2014 BICYCLE/PEDESTRIAN ADVISORY COMMITTEE
Bruce England
Josette Langevine
Simon Purdon
Marc Roddin
Greg Unangst

TECHNICAL ADVISORY COMMITTEE
Martin Alkire
Sayed Fakhry
Robert Kagiyama
Rochelle Kiner
Rebecca Shapiro
Jacqueline Andrews Solomon

SPECIAL THANKS
Green Mountain View
Mountain View Community
Santa Clara Valley Transportation Authority

MOUNTAIN VIEW ENVIRONMENTAL SUSTAINABILITY TASK FORCE TRANSIT AND TRANSPORTATION WORKING GROUP

Jennifer Anderson
John Carpenter
Cliff Chambers
Bruce England
Deb Henigson
Shirley Ingalls
Ignacio Martin-Bragado
Les Montavon
David Paradise

MARCH 15, 2008 WALKABILITY WORKSHOP PRINCIPALS

LaDrea Clark
Wendy Holforty
Molly Stenhouse
Teresa Testa
Lucy Wicks
Cindy Yee

PEDESTRIAN COUNT SURVEY VOLUNTEERS

Lauren Angelo
Celia Chung
Bruce England
Mark Gilkey
Sharon Gloster
Aaron Grossman
Shirley Ingalls
Deb Henigson
Julie Lovins
Bryan Malone

TABLE OF CONTENTS

TABLE OF FIGURES **Page**

TABLE OF EXHIBITS

TABLE OF APPENDICES

EXECUTIVE SUMMARY

Pedestrian Master Plan Overview

The Mountain View Pedestrian Master Plan (PMP) is a City-wide policy document with pedestrian-related policies and guidelines that builds upon the City's successful pedestrian planning efforts and provides tools for future improvements. This is the City's first PMP and is one implementation tool of the City's recently adopted 2030 General Plan. The PMP expands upon the 2030 General Plan mobility goals by more specifically addressing pedestrian-related needs of the community.

In developing the PMP, staff relied on the City's 2030 General Plan, 2008 Environmental Sustainability Task Force Final Report, Unimproved Street Policy, Americans with Disabilities Act (ADA) Transition Plan, Capital Improvement Program, Parks and Open Space Plan, Neighborhood Traffic Management Program, relevant local and regional policy documents, and data gathered for the Existing Conditions Chapter of the PMP.

Existing Conditions

Chapter 2 illustrates why Mountain View is an ideal place for year-round walking and bicycling and sets the foundation for the local recommendations to follow. It includes a review of the City's demographics, land use, key trip generators or "pedestrian magnets," the pedestrian environment and existing facility gaps and barriers, local and regional transit services and policy documents, and public input.

From these findings, it is evident the City has implemented pedestrian, bicycle, and transit-friendly policies of the 1992 General Plan and has a robust existing transit and pedestrian infrastructure network. However, gaps in the pedestrian environment remain and there are opportunities for continued improvements to connectivity, pedestrian safety, and comfort.

Recommendations

Chapter 3 outlines the pedestrian goals, policies, and action items building upon the mobility goals of the 2030 General Plan and refined based on public comment received during the General Plan update and PMP development processes and input/direction from the City's Bicycle/Pedestrian Advisory Committee (B/PAC) and Council Transportation Committee (CTC) during the reviews of draft PMP documents.

The 2030 General Plan emphasizes the importance of walkability through mobility-related goals. The following five General Plan mobility goals served as the foundation for the development of the goals, policies, and action items presented in this PMP:

1. Complete Streets (MOB-1)

2. Accessibility (MOB-2)

3. Walkability (MOB-3)

4. Safe Routes to Schools (MOB-6)

5. Maintenance (MOB-11)

Implementation and Funding

Chapter 4 outlines potential strategies, projects, and programs to improve the pedestrian environment in Mountain View, including criteria for prioritizing, funding, and implementing them.

Performance Measurement and Monitoring

Chapter 5 describes the performance measures the City will initially use to monitor its progress in improving the pedestrian environment, the desired performance targets for each measure, and data collection requirements/responsibilities. These initial performance measures measure performance trends (e.g., increasing rates, decreasing rates). However, in the future, these measures will transition to performance targets with specific numerical values (e.g., 5 percent reduction, less than three incidents per reporting period), as appropriate.

CHAPTER 1 INTRODUCTION

The Mountain View PMP is a City-wide policy document with pedestrian-oriented policies and guidelines that builds upon the City's past pedestrian planning efforts and provides tools for future improvements. Mountain View already has a robust automobile network, and its access to transit, including light rail, Caltrain commuter rail, and Santa Clara Valley Transportation Authority (VTA) bus and shuttle service provides the opportunity to increase nonautomobile trips. Mountain View's off-street, shared-use paths and largely complete sidewalk network are foundations for a more balanced transportation system. Pedestrian facilities are one cornerstone of a balanced transportation system, not just for the sake of self-identified pedestrians, because access to many other modes relies on convenient and safe pedestrian facilities. Once a car or bike is parked, its user becomes a pedestrian. Transit users often walk to or from the station. Given the role pedestrian infrastructure plays in supporting both walking trips and trips by other modes, it is important to invest in a comprehensive pedestrian network.

Castro Street in Downtown Mountain View
Source: Nelson\Nygaard

Stevens Creek Trail Bicycle and Pedestrian Bridge
Source: Nelson\Nygaard

The City has made significant strides toward carrying out the pedestrian-related policies of the 1982 and 1992 General Plans. Notable achievements include: a revitalized and walkable (easy to walk in) urban core centered on Castro Street; continued expansion of the multi-use trail network; progressive City-wide installation of ADA-compliant curb ramps; implementation of traffic-calming and safety measures in residential neighborhoods and around schools, transit hubs, and in other locations with high pedestrian activity; and recognition that walkable and mixed-use neighborhoods encourage nonmotorized transportation. The pedestrian, bicycle, and transit-friendly policies of the 1992 General Plan have contributed to the fact that more people in Mountain View utilize nonmotorized transportation to get to work than in other municipalities in the United States.[1]

[1] See Chapter 2 for more details.

The PMP has been developed as part of several recent key planning efforts. In the spring and summer of 2008, the City of Mountain View conducted a City-wide process to actively engage community members and key stakeholders in crafting a vision for the City's future. The visioning process was the starting point for the coordinated 2030 General Plan and the PMP effort. Mountain View's vision statement represents the community's ideal future based on shared community values and priorities:

> *"In 2030, the City of Mountain View continues to embrace sustainable living and provides for the needs of all residents. It is a place that values its diversity, balances preservation with innovation, and provides quality education. The community supports a lively downtown, vibrant neighborhoods, and a healthy economy."*

In support of this vision, community members described the future of Mountain View as a City of healthy, connected, pedestrian-accessible villages where businesses and residents embrace environmental sustainability. The 2008 Mountain View Environmental Sustainability Task Force (ESTF) issued a report with recommendations for making Mountain View more environmentally sustainable. One of the ESTF's key recommendations was for the City to hold a walkability workshop and adopt a PMP. Based on these efforts, Mountain View received a grant from the VTA to develop the City's first PMP.

This plan helps envision a Mountain View with robust transportation options that are safe, convenient, enjoyable, and healthy. As one implementation tool of the City's 2030 General Plan, this PMP expands upon the 2030 General Plan mobility goals promoting alternatives to the automobile, increasing pedestrian use and vitality of public spaces, and fostering community interaction throughout Mountain View.

CHAPTER 2 EXISTING CONDITIONS

The City of Mountain View is located in Santa Clara County, bordering the San Francisco Bay to the north, Palo Alto to the west, Los Altos to the south, and Sunnyvale to the east. Mountain View has been shaped over the years by its natural environment, temperate climate, advantageous location in the heart of Silicon Valley, and a strong and diverse regional socioeconomic context. Situated between the Bay and the Santa Cruz Mountains, the City covers approximately 12 square miles. The Bay Area's mild climate, combined with the City's relatively short distances between key areas and destinations and a flat topography, makes Mountain View ideal for year-round walking and bicycling.

2.1 Demographics

Mountain View's population of 74,000[2] is predominantly white (46 percent) and Asian (26 percent). However, there is a significant Latino population in Mountain View (22 percent), followed by people of two or more races (4 percent) and African American (2 percent).[3] Roughly 21 percent of Mountain View residents are children under the age of 19 years, a proportion lower than national and State-wide levels.[4] There are approximately 5,600 students in the Mountain View Whisman School District (grades K-8) and in private schools. In addition, there are approximately 3,700 students in the four high schools for a total of about 9,300 students in Grades K-12. Mountain View's population above 65 years of age is large, composing almost 11 percent of the population,[5] compared to 5 percent nationwide and 6 percent State-wide.

The Association of Bay Area Governments' (ABAG's) population projections predict that the number of Mountain View residents over the age of 65 will continue to grow. Between 2010 and 2020, ABAG projects an increase from 7,800 to over 13,700. By 2030, the population of people over 65 years of age is predicted to top 18,700. Meanwhile, between 2010 and 2030, ABAG projects a marginal increase in all other age groups. Pedestrian facilities are especially important for people over 65. As a group, they tend to drive less, relying on walking, transit, and other modes of transportation.

While Mountain View's demographic characteristics may not align with County or national figures, the most recent United States Census commute data indicates that Mountain View has a similar walking rate among commuters compared to

---

2 U.S. Census Bureau, 2010 Demographic Profile Data *http://www.census.gov/prod/cen2010/profiletd.pdf.*
3 Ibid.
4 Ibid.
5 Ibid.

County, State, and national averages (Figure 1).[6] By comparison, commuting by bicycling in Mountain View is much higher than County, State, and nationwide rates. Levels of transit use are higher in Mountain View than in the rest of Santa Clara County and about on par with national and California levels. Transit trips are important to consider in a pedestrian master plan as transit trips generally begin and end on foot.

Figure 1—2005-2009 Commute Mode Split

Mode	Mountain View	Santa Clara County	California	U.S.
Drive Alone	74.1%	77.0%	73.0%	75.9%
Carpool	8.1%	10.1%	12.0%	10.5%
Public Transit	5.8%	3.4%	5.1%	5.0%
Bicycling	3.2%	1.4%	0.9%	0.5%
Walking	2.3%	2.3%	2.8%	2.9%
Other	2.3%	1.6%	1.4%	1.2%
Worked at Home	4.3%	4.2%	4.8%	4.0%

Source: U.S. Census Bureau, 2005-2009 American Community Survey

To establish a more complete understanding of pedestrian characteristics in the City, a walking survey was conducted in Mountain View in 2010. The results of this survey are discussed later in this chapter, and detailed in full in Appendix A.

2.2 Land Use

As in many other cities on the San Francisco Peninsula, Mountain View has a relatively dense, mixed-use, and walkable downtown core. Mountain View also contains a variety of existing "village centers" (a commercial or mixed-use destination, typically a neighborhood shopping center where residents can conveniently access daily goods and services).[7] The City also has many parks, employment centers, and other areas of commercial activity within walking distance of many neighborhoods.

One of Mountain View's Many Neighborhood Centers
Source: Nelson\Nygaard

[6] U.S. Census Bureau, 2005-2009 American Community Survey.
[7] 2030 Mountain View General Plan.

Each neighborhood has its own distinct character. A map of the City's neighborhood areas as identified and discussed in the 2030 General Plan is provided in Exhibit 1. The Central Neighborhood features the densest and most diverse urban development in Mountain View. This neighborhood is centered on Castro Street and the Downtown Mountain View Transit Center and is well connected to surrounding areas. The Central Neighborhood, particularly downtown, has a lively, walkable, transit-oriented, and mixed-use character with well-designed open space, diverse architecture, pedestrian-oriented streets and sites, and major cultural and civic amenities for residents, employees, and visitors.

There are also many single-use neighborhoods and districts generally characterized by greater separation between origins and destinations and other barriers to connectivity, which makes walking a less viable transportation option than bicycling and other modes. For instance, North Bayshore features predominantly suburban office parks and is separated from the rest of the City by Highway 101. The Monta Loma, Moffett Boulevard/Whisman Road, and San Antonio Road/Rengstorff Avenue areas feature a mix of light industrial, retail, and residential use with cul-de-sacs and long blocks. The Miramonte Avenue/ Springer Road area is a predominantly single-family residential area and includes neighborhood and regional commercial shopping centers, higher-intensity residential uses bordering the mixed-use corridor along El Camino Real, and El Camino Hospital. The Grant Road/Sylvan Park area is predominantly composed of single-family residences with higher-intensity residential uses to the east and north, a mix of retail and service commercial, light industrial, office, and mobile home park uses around El Camino Real and open space along Stevens Creek.

2.3 Key Trip Generators

While pedestrians are present throughout Mountain View, certain land uses, built forms, and recreational facilities attract more pedestrian trips than others. For example, the higher density, mix of uses, and pedestrian facilities in the downtown area make pedestrian travel from residences to services and retail both practical and pleasant. Conversely, North Bayshore has complete pedestrian facilities in many locations, but distances between businesses and services may exceed

City Hall and Center for the Performing Arts
Source: Nelson\Nygaard

what is acceptable to some pedestrians. The City's recently adopted 2030 General Plan and its current North Bayshore Precise Plan efforts should provide the City with guidance and opportunities to begin addressing these issues.

To promote walkability, or ease of walking,[8] it is important to identify existing pedestrian magnets and assess the transportation network serving these key destinations, or trip generators. The following section outlines major pedestrian attractions, including downtown Mountain View, schools, trails, and open spaces.

Downtown

The commercial downtown area of Mountain View is in the Central Neighborhoods area, primarily along Castro Street between Central Expressway and El Camino Real.

Castro Street is highly walkable with wide sidewalks, high-quality street furniture, and active ground-floor uses. In the first two blocks south of the Downtown Mountain View Transit Center, several parking spaces have been converted to outdoor café and restaurant seating, which welcomes pedestrians, adds to the visual appeal of the street, and helps create a pleasant atmosphere. Not only is it easy to walk around downtown Mountain View, but downtown is easily accessible by foot from surrounding neighborhoods because the dense, interconnected street grid south of the Central Expressway offers frequent opportunities to enter and exit downtown Mountain View.

In Mountain View, riding bicycles on sidewalks is prohibited except in residential and agricultural zones. This practice is similar to most other California cities that prohibit riding bicycles on sidewalks.

Robust transit and automobile facilities also contribute to the accessibility of downtown. Downtown is the focal point for public transit in Mountain View, with Caltrain, VTA light rail, VTA buses, taxis, and various shuttles converging at the Downtown Mountain View Transit Center. Transit and walking are natural partners as accessing transit stops often takes place on foot. Downtown Mountain View is also accessible by automobile, and the majority of parking is found in off-street parking facilities within one block of either side of Castro Street, including two off-street structures and several City-owned, off-street surface lots with two- to three-hour time limits on parking. Thus, the majority of traffic to Castro Street businesses includes some walking—even for those visitors who choose to drive to downtown.

[8] Southworth, M. 2005. "Designing the Walkable City." Journal of Urban Planning Development 131, 246.

During the 2010 Mountain View Pedestrian Master Plan Pedestrian and Bicycle Count, one of the top three locations for bicyclists was at Castro Street and Villa Street (refer to Appendix A).

K-12 Schools

The quality of physical improvements within the pedestrian environment is especially important in the vicinity of schools. Children, some of the most vulnerable and inexperienced road users, often walk to school or play in the vicinity of schools. A child's awareness of his or her surroundings may be different from that of an adult's, partly because children are shorter and cannot easily see over obstacles and partly because their ability to judge the speed and distance of vehicles is not fully developed. Their small stature can also prevent drivers of passing vehicles from seeing a child behind a parked vehicle or other obstacle.

In addition, health concerns warrant special attention to and promotion of pedestrian facilities at schools. Over the last several decades, an increasing number of children are driven to school, contributing to increased obesity, Type II diabetes, and other health issues in increasingly younger children.[9] Promoting safe walking and bicycling to school can be important to establishing lifelong habits for healthy transportation among the City's 9,300 students.

Students Walking to Mountain View High School
Source: Nelson\Nygaard

The City of Mountain View has teamed with elementary and middle schools to coordinate a Safe Routes to School (SRTS) program. Safe Routes to School is a nationwide initiative aimed at increasing bicycling and walking to school safely. In addition to various Federal SRTS grants, the City's Vehicle Emissions Reductions Based at Schools (VERBS) program provides additional funding to meet many of the same goals as SRTS. More information on the programs sponsored by these grant programs can be found in Appendix B.

[9] Ogden, C. L., et al., 2006. "Prevalence of Overweight and Obesity in the United States, 1999-2004." Journal of the American Medical Association, 295, No. 13.

Parks and Open Space

Mountain View has many small- to medium-sized parks dispersed throughout the City. In addition, the northern part of the City bordering San Francisco Bay is dominated by Shoreline at Mountain View, a 753-acre public, multi-use open space with more than 10 miles of trails.[10] To increase the stock of parks and open space, the City has recently purchased multiple parcels and developed parks at Del Medio Avenue between California Street and Miller Avenue and Mariposa Avenue between California Street and Villa Street.

The Mountain View Parks and Open Space Plan (2008) noted that although there is a desire to increase the amount of park and open space, there is a challenge posed by the limited undeveloped land available in the City. Nevertheless, the Plan calls for working with landowners to enable shared use of parks and open space resources and connect parks and open space via the City's robust trail network. Existing open space facilities are well used, and given their locations sprinkled throughout the City, they are and will continue to be significant pedestrian trip generators.

Trails

Trails serve as important links between neighborhoods and employment centers, schools, transit, and other destinations. Various trails cross Mountain View, including the Stevens Creek Trail, the Hetch Hetchy Trail, and the Permanente Creek Trail.

Bicycle Trail at Shoreline
Source: Nelson\Nygaard

The **Stevens Creek Trail** (5 miles) provides an uninterrupted, grade-separated north-south path between Shoreline at Mountain View and Dale Avenue/Heatherstone Way, serving major destinations and transportation links, such as Shoreline at Mountain View, the North Bayshore employment center, the Hetch Hetchy Trail, the Downtown Mountain View Transit Center, downtown, El Camino Real, and several neighborhood parks and schools. The City has studied, but not funded, a future extension of the trail to Mountain View High School. The City is also working with the cities of Cupertino,

Stevens Creek Trail between
Sleeper Avenue and El Camino Real
Source: City of Mountain View

[10] http://rhorii.com/MVShoreline/MVShoreline.html.

Sunnyvale, and Los Altos on possible additional future extensions of the trail.

The **Hetch Hetchy Trail** (1/2 mile) runs east-west and connects residential neighborhoods, the Whisman School, and the Whisman Light Rail Station with Whisman Road and the Stevens Creek Trail. A 2003 Hetch Hetchy Trail Study evaluated possible trail alignments to extend the trail west from Stevens Creek to El Camino Real just west of San Antonio Road and east from Whisman Road to Clyde Avenue. These extensions would provide a complete east-west multi-use path across the City. A feasibility study in 2007 looked at extending the trail and recommended the City focus on the areas between Highway 85 and Moffett Boulevard and between Escuela Avenue and Highway 85.

The **Permanente Creek Trail** (1 mile) runs from the recreational paths at Shoreline at Mountain View south to Old Middlefield Way, just south of Highway 101. The City has made significant progress in implementing nonmotorized improvements along Permanente Creek Trail, including a pedestrian and bicycle overpass on Highway 101 and a tunnel underneath Old Middlefield Way. An extension of the Trail to Rock Street was completed in late 2013. A further extension of the Trail to West Middlefield Road is being planned, but not yet funded. This trail and other trail resources provide key access and connections for pedestrians and bicyclists to a variety of residential and commercial locations in the City because streets cannot cover all important connections.

Major Employment Centers

Many of Mountain View's largest employers are situated in the office parks in the North Bayshore and East Whisman districts. Most of the streets in these areas have sidewalks, but because they are still dominated by fairly low-density single land uses, distances between destinations and services are long. Large block sizes with few pedestrian shortcuts also reduce walkability.

Shared Bicycles at the Googleplex
Source: Nelson\Nygaard

These major employment centers are reasonably well served by transit. Shuttle and VTA services connect North Bayshore and North Whisman with downtown, which makes it feasible for many employees to commute to North Bayshore and North Whisman with a combination of transit and walking. Some of the larger employers also generate significant amounts of pedestrian traffic within and between their different campuses.

Planned pedestrian improvements include the enhancement of the Permanente Creek Trail in North Bayshore and enhanced access to the Bayshore/NASA VTA light rail station in the Moffett/Whisman neighborhood. Additionally, mixed-use development is cropping up near the East Whisman employment center. The area is home to a recent transit-oriented development within 2,000' of the Middlefield Light Rail Station that will provide various pedestrian improvements, including sidewalk extensions, landscaped medians, trail connections, pedestrian-level lighting, etc. Plans for more mix of uses will also encourage future pedestrian activity.

Accessibility for All

Senior Facilities

As the 2011 State of Mountain View Seniors report notes, Mountain View, like the rest of the country, is growing older. As a result, the City has affirmed its commitment to age-friendly transportation and accommodating the special needs of seniors. The City's Senior Advisory Committee is actively developing transportation criteria to measure the City's success as a Senior-Friendly City.

Traffic-Calming at Mountain View Senior Center
Source: Nelson\Nygaard

The pedestrian environment around senior facilities and transit stops along routes serving senior facilities is important. Seniors have very specific mobility needs. As people age, they generally drive less or cease to drive entirely and rely more on walking and transit to maintain independent mobility and prevent isolation. Walking is also a low-impact exercise ideal for seniors looking to remain active and physically fit. Senior citizens often walk slower than younger adults and have slower reaction times. Thus, safe and well-maintained pedestrian facilities, including crosswalks, pedestrian signal phases, smooth and clear sidewalks, etc., are critical for many older adults to remain active and be integral members of the community.

Figure 2 lists facilities in Mountain View providing services to seniors. Section 2.5 outlines transit lines serving these facilities.

Figure 2—Mountain View Senior Facilities

Facility	Address
Mountain View Senior Center	266 Escuela Avenue
Avenidas Rose Kleiner Senior Day Health Center	270 Escuela Avenue
Community Services Agency	204 Stierlin Road
El Camino Hospital Senior Health Center	2660 Grant Road
Villa Siena Senior Living Community	1855 Miramonte Avenue

Children, Infants, and Toddlers

Infants and toddlers require similar accessibility considerations as seniors and persons with disabilities, namely smooth paving and accessible curb cuts for pushing strollers, sufficiently wide sidewalks to allow for comfortable use, high-visibility crosswalks, and sufficient crossing time intervals.

Children are among the most vulnerable users of streets and, thus, require a safe environment to walk, bicycle, and play independently. Sidewalks or paths, safe street crossings, a continuous network, wayfinding signage, dedicated bicycle lanes, and reduced speed levels in school and residential zones support the specific needs of this group.

Persons with Disabilities

This particular group is especially vulnerable to sidewalk conflicts with bicycles, tricycles, strollers, and carriages, from hedges and bushes that overhang onto the sidewalk, and to broken sidewalks. Fortunately, curb cuts already exist just about everywhere needed, which is invaluable to the disabled pedestrian. Those with cognitive issues have difficulty distinguishing between vehicle traffic signals (traditional red light or green light) and signals designed especially for pedestrians.

Improving access for this group requires special consideration for users who may have wheelchairs, diminished vision, limited hearing, cognitive disabilities, or who move more slowly and are likely dependent on public transportation. To highlight some of these issues, a recent study found blind pedestrians waited three times longer to cross the street and made many more dangerous crossings than sighted pedestrians.[11] Physical street barriers reduce persons with disabilities' access to public transportation. According to the National Complete Streets Coalition,

[11] National Complete Streets Coalition. 2011. People with Disabilities Factsheet—http://www.completestreets.org/complete-streets-fundamentals/factsheets/children/.

many persons with disabilities prefer fixed-route bus transit options, but physical street barriers force them to pay for more costly paratransit service.[12] Many of the design considerations for this group overlap with the other special-needs groups as universal design elements. Additional considerations include sidewalks free of obstacles, a variety of crossing cues (visual, tactile, and auditory), and improved sidewalk access.

2.4 Pedestrian Environment

Mountain View has about 140 miles of streets, of which 135 miles (96 percent)[13] are improved to modern City standards, including pedestrian amenities such as sidewalks, curb ramps, and street lighting.[14] Other pedestrian facilities include shared pedestrian and bicycle paths entirely separate from the road network, such as the Stevens Creek Trail, the Hetch Hetchy Trail, and the Permanente Creek Trail.

Pedestrian Facility Gap Analysis

The most common connectivity element for pedestrians is streets, and in Mountain View, almost all streets currently have sidewalks, with only 4 percent lacking sidewalks. Of these, the majority are unimproved streets. An unimproved street is defined as a street lacking sidewalks, curbs, or paved shoulder surface. Most of the five miles of unimproved streets are located in the residential neighborhoods south of El Camino Real and west of San Antonio Road and are the results of neighborhood streets developed in the County prior to annexation into the City. The light-industrial sector northeast of downtown, including Logue Avenue, Maude Avenue, and National Avenue, also contain gaps in the pedestrian network, making it difficult for pedestrians to navigate these areas.

Mountain View's Unimproved Street Policy (1993) outlines the process by which the City upgrades streets to modern standards. The City has used both assessment districts and matching funds in its previous street upgrade efforts.

Pedestrian Barriers

Gaps in the pedestrian network are not the only barriers to walking. As the VTA Pedestrian Technical Guidelines note:

> "Curb cuts exist where a driveway crosses the sidewalk. Numerous or wide curb cuts and driveways can preclude elements like on-street

[12] Ibid.
[13] ADA Sidewalk and Curb Ramp Inventory, City of Mountain View, March 2011.
[14] Unimproved Street Policy, City of Mountain View, 2003.

> parking, raised curbs, and street trees, which insulate pedestrians from traffic. Additionally, at curb cuts there is potential for conflict between drivers and pedestrians and increased possibility that pedestrian mobility will be compromised. However, with good design, curb cuts have little impact on mobility."[15]

Current Americans with Disabilities Act (ADA) requirements at driveways will help alleviate some pedestrian concerns about transitions at driveways. As properties redevelop or the City replaces sidewalks, curb cuts are replaced and made compliant with ADA standards.[16]

Major roads and the railroad tracks inhibit pedestrian circulation in Mountain View. Pedestrians, like all travelers, will almost always seek the shortest, most direct path to their destinations and are sometimes tempted to cross at unprotected locations. Like every city, Mountain View has numerous arterials to swiftly and efficiently carry vehicles. Although pedestrian signals are programmed to provide adequate time for all users to safely cross the street, six-lane roads may be uncomfortable for some pedestrians to cross and would not be considered a quality pedestrian environment. Highways 101, 237, and 85, Central Expressway, El Camino Real, Shoreline Boulevard, and the railroad tracks make traversing Mountain View on foot difficult for some pedestrians, including children, seniors, and the disabled.

Pedestrian Safety

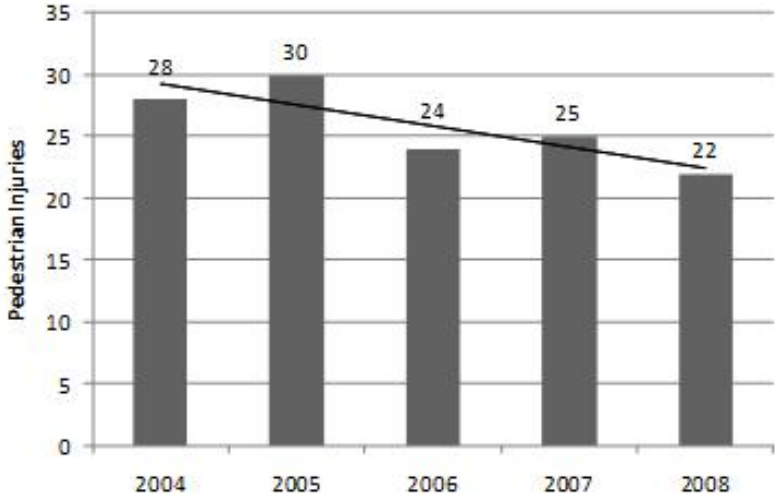
Two indicators of the safety of Mountain View's pedestrian environment are the number of collisions between pedestrians and bicyclists and pedestrians and vehicles. As indicated earlier, bicycle commute rates in Mountain View are higher than the State and national average. These high commute rates have not resulted in a higher frequency of collisions between pedestrians and bicyclists. Between 2004 and 2008, there were only two reported collisions involving pedestrians and bicyclists. These official statistics likely do not reflect all bicycle and pedestrian conflicts, such as on sidewalks, as many of these incidents go unreported. During the same 2004 to 2008 time period, the number of reported pedestrians and vehicles trended downward, with some variation from year to year (see Figure 3).

---

[15] Valley Transportation Authority Pedestrian Technical Guidelines.

[16] ADA requires sidewalks to include a continuous pedestrian accessible route with a surface that is firm, stable, and slip-resistant, minimum clear width of 48", and maximum cross slope of 2 percent (1:48) at sidewalk/driveway connections.

Figure 3—Pedestrian Injuries in Mountain View, 2004-2008



Source: Mountain View/SWITRS 2004-2008

Pedestrian and motor vehicle crashes tend to occur in areas heavily frequented by pedestrians. According to a 2010 report released by the Federal Highway Administration (FHWA), "traffic and roadway factors found to be related to a greater frequency of pedestrian crashes included higher pedestrian volumes, higher traffic ADT (Average Daily Traffic), and a greater number of lanes (i.e., multi-lane roads with three or more lanes had higher pedestrian crash rates than two-lane roads)."[17]

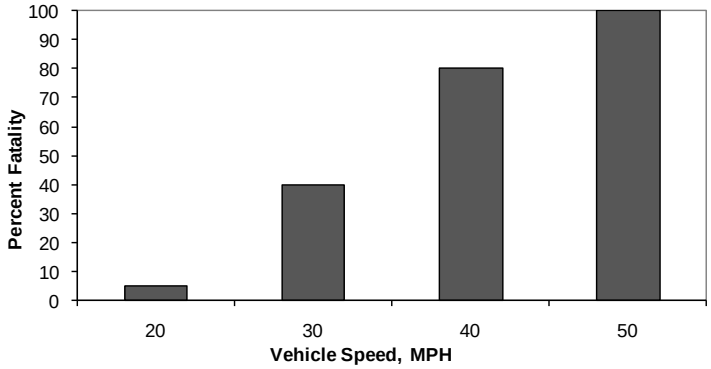
Other studies have established that the severity of pedestrian/vehicle crashes increases as the speed of traffic increases. In pedestrian/vehicle collisions where the vehicle is traveling at 50 mph, 100 percent of pedestrians are killed. As speed decreases, the chance of fatality decrease (see Figure 4), and the injury rate decreases as well. Thirty (30) percent of crashes result in no injury at all when the vehicle is traveling at 20 mph.[18,19]

[17] U.S. Department of Transportation Federal Highway Administration, 2010. "Safety of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report."

[18] U.K. Department of Transportation, 1987. Killing Speed and Saving Lives, London, UK DOT.

[19] Leaf, W. and Preusser, D., 1994. Literature Review on Vehicle Travel Speeds and Pedestrian Injuries, US DOT NHTSA (DOT HS 809 021), p.4.

Figure 4—Pedestrian Risk and Vehicle Speed



Source: Leaf & Preusser (1999)

These empirical studies are supported by experience in Mountain View. Most pedestrian collisions from 2004 through 2008 occurred along major thoroughfares with fewer pedestrian accommodations and some occurred along Castro Street, which has large numbers of pedestrians present. The severity of the collisions varied with the differences in street design and vehicle flow. Castro Street has wide sidewalks, well-marked crosswalks, and vehicle speeds set as low as current California law will allow. Accordingly, pedestrian/automobile collisions resulted in minor injuries and no fatal collisions. More severe injuries tended to occur along predominantly auto-oriented streets with higher vehicle speeds.

In 1996, the City Council adopted the Neighborhood Traffic Management Program (NTMP) to establish a consistent set of guidelines to provide residents and property owners with a means to obtain relief from traffic-related concerns, namely speeding vehicles and cut-through traffic on a residential street. Traffic control measures implemented through the NTMP (e.g., speed and warning signs, turn restriction signs, curbside trees, speed humps, median islands, traffic circles, bulb-outs, etc.) can improve the safety and aesthetics of the pedestrian environment in the neighborhoods they are installed.

2.5 Transit Services

Access to transit is an appropriate focus of a pedestrian master plan because every transit rider is a pedestrian during part of each trip—walking to or from the transit stop. As a result, particular emphasis should be placed on enhancing the pedestrian realm around transit stops and integrating transit stops into the pedestrian environment. In recent years, the City has undertaken targeted efforts to increase walkability to transit, including improved connections to the Middlefield Light Rail Station made possible by new construction in the Whisman Transit Zone.

A variety of transit providers in Mountain View depend on an attractive and safe pedestrian realm, including Caltrain commuter rail, the Santa Clara Valley Transportation Authority (VTA) light rail and bus services, and public/private shuttles.

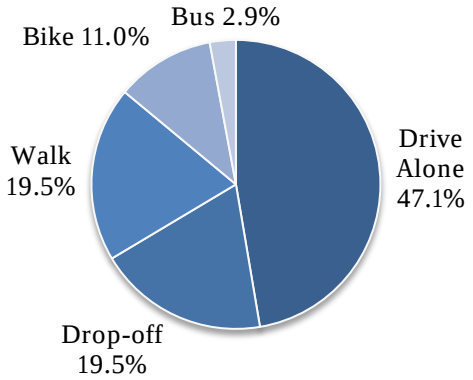
Caltrain

There are two Caltrain stations in Mountain View. The Downtown Mountain View Transit Center provides more frequent and faster (limited stop) service than the San Antonio Station, west of downtown. With around 3,600 boardings per weekday, the Downtown Mountain View Transit Center has the third highest average weekday ridership of all stations in the system, with only San Francisco and Palo Alto generating higher ridership. It also has the third highest average weekday bicycle ridership in the system. The San Antonio station has a total weekday ridership of about 500 and ranks as 17th of the system's 29 stations.[20]

Downtown Mountain View Transit Center
Source: Nelson\Nygaard

According to a 2008 UC Berkeley study, almost 20 percent of all Caltrain riders who use the Downtown Mountain View Transit Center walk to the train. An additional 11 percent bike, 3 percent take a bus or shuttle, and 67 percent drive or are driven to the station.[21] Refer to Figure 5.

Figure 5—Mode Split for Caltrain Riders at Mountain View Station



[20] February 2010 Caltrain Annual Passenger Counts.

[21] Park, Sungjin, 2008. "Defining, Measuring, and Evaluating Path Walkability, and Testing Its Impacts on Transit Users' Mode Choice and Walking Distance to the Station," UC Berkeley Ph.D. Dissertation.

Generally, most of the Caltrain users who walk to the Downtown Mountain View Transit Center station walk from within a one-quarter-mile to one-half-mile radius, although some Caltrain riders walk from as far away as 1.5 miles to get to the station. The UC Berkeley study looked at the routes taken by 150 riders walking to the Downtown Mountain View Transit Center in an effort to quantify walkability, or how easy it is to walk, and develop a model to help explain why Caltrain riders choose to walk the routes they do. According to the findings, Castro Street and Villa Street are two of the most important pedestrian routes for accessing the station. Other major routes include Stierlin Road, Moffett Boulevard, West Evelyn Avenue, and the immediate northeastern segment of Central Expressway. Using a composite walkability index made up of sidewalk amenity, traffic, street scale and enclosure, and landscaping metrics, the study found that within a two-mile radius of the station, the area south of the railway line is quantifiably more walkable than the area north of the railway line.[22]

Santa Clara Valley Transportation Authority (VTA)

Buses and light rail provide the majority of local public transit service in Mountain View and help extend the range and opportunities available to pedestrians. VTA offers 45 local/community routes, 12 express routes, 4 limited-stop routes, 6 shuttle routes, and paratransit services to approximately 100,000 weekday riders.

VTA Rapid Bus Service
Source: Nelson\Nygaard

[22] Variables affecting the sidewalk amenity metric include midblock crossings, street furniture, street-facing entrances, average skyline height, pedestrian-level facade transparency, average width of walking zone, and average width of on-street parking. Variables affecting the landscaping metric include number of street trees, width of landscape strip, and width of buffer zone. In Park's model, sidewalk amenities and landscaping increase the incidence of walking. Variables affecting the traffic metric include the pedestrian signal coverage rate, the average number of traffic lanes, pedestrian crossing facility design, average roadway width, average width of the bike lane, etc. The pedestrian signal coverage rate and quality of pedestrian crossing facilities are positively associated with walkability. The more travel lanes and the wider the roadway width, the less likely people are to walk at this location. The street scale and enclosure metric includes such variables as average building setback, average building-to-building distance, and traffic lane width. A more enclosed street is associated with more frequent pedestrian use of the street.

Nine of VTA's bus routes serve Mountain View and connect the City with adjacent jurisdictions. Most bus routes operate along major arterial roads, including El Camino Real and Middlefield Road. For more information on local bus routes, refer to Appendix C for schedules and route maps.

VTA Light Rail at the Middlefield Station
Source: Nelson\Nygaard

VTA's express bus routes and limited-stop bus lines offer premium service, higher speeds, greater reliability, and make fewer stops than local bus service. Express Bus Route 104 connects Mountain View with job centers throughout the County during morning and afternoon peak periods. Mountain View's only express bus stop is located at Rengstorff Avenue and Old Middlefield Way. Currently, Routes 22 (local) and 522 (limited-stop service) run along the El Camino Real Corridor and carry 20 percent of VTA's total ridership, or 20,000 daily riders.[23] VTA is considering enhanced Bus Rapid Transit (BRT) along the existing 522 route.

VTA operates 40 miles of light rail service within Santa Clara County. The Mountain View-Winchester Line serves downtown Mountain View and other major stops, spaced 0.25 to 1.5 miles apart at Evelyn LRT Station, Whisman LRT Station, Middlefield LRT Station, and Bayshore/NASA-Ames LRT Station.

VTA also offers shuttle and paratransit service to Mountain View residents. Through a contract with OUTREACH, VTA provides mobility and accessibility to qualified individuals with disabilities who cannot easily access the fixed bus routes or light rail system. Additionally, Route 34 connects downtown and the San Antonio shopping area with a stop at the Mountain View Senior Center and terminus at the San Antonio Caltrain station.

Shuttles

There are four public shuttle routes from the Downtown Mountain View Transit Center during commute hours. The shuttle routes cover many of the major employment areas and help make regional commuting by train a more viable alternative. The shuttles are funded by the Bay Area Air Quality Management

[23] Santa Clara Valley Transportation Authority, 2010. Bus, Light Rail, Trolley Factsheets *http://www.vta.org/news/factsheets/bus_lightrail_trolly_information/64_rapid_522.pdf*.

District, Transportation Fund for Clean Air, Peninsula Corridor Joint Powers Board, and some of the major employers served by each route, including the following:

- Duane Avenue (Advanced Micro Devices)
- Mary/Moffett Employers and North Bayshore Employers (Intuit)
- Shoreline Area (Google)

Furthermore, many employers and private schools provide their own private shuttle services from the Downtown Mountain View Transit Center.

2.6 Relevant Local and Regional Policy Documents

There are many recent local and regional policy documents indicating the priority placed on safe, high-quality pedestrian environments and encouraging greater pedestrian mode shares for all types of trips. This PMP builds on and translates these policies into recommendations for concrete improvements for pedestrians. The Mountain View 2030 General Plan and other plans and programs, including the Environmental Sustainability Task Force Final Report, Unimproved Street Policy, ADA Transition Plan, Capital Improvement Plan, Parks and Open Space Plan, Neighborhood Traffic Management Program, and various grant applications have provided useful information to guide decisions about future pedestrian improvements. Please refer to Appendix B for more detailed information about these documents.

Mountain View 2030 General Plan

The 2030 General Plan Current Conditions Report contains background information on issues and opportunities relevant to the pedestrian environment, such as land use planning, urban design, modes of transportation, health, and sustainability. The concurrent development of the 2030 General Plan and PMP has been intentional to streamline public outreach, ensure alignment of pedestrian-related recommendations, and efficiently utilize City resources.

2.7 Public Input

Through the 2030 General Plan and the PMP process, residents of Mountain View have been able to provide input on current and future pedestrian conditions. While these comments span a wide array of topics, especially for the 2030 General Plan, only those relevant—directly or tangentially—to pedestrian conditions have

been included here. This section elaborates on public comments in both the 2030 General Plan process and the PMP process.

2030 General Plan Rengstorff Neighborhood Outreach Process, September 2009
Source: City of Mountain View

In general, the public agrees that the City has already made great strides towards fostering pedestrian-friendly conditions in parts of Mountain View. The City has been very successful in encouraging a pedestrian environment on Castro Street and around larger transit stops. However, continued improvements to connectivity, pedestrian safety, and comfort were also highlighted as high priorities throughout the public outreach process.

Public Comments from the 2030 General Plan Process

As part of the Mountain View 2030 General Plan process, several community workshops were held in May, June, August, and September of 2009. The outreach also included about 10 meetings with targeted, and often underrepresented, groups such as non-English-speaking people, business owners, seniors, and youth. Mountain View residents in general appeared supportive of progressive and environmentally friendly urban design and planning, including prioritizing alternatives to the automobile. The connection between density, mix of uses, transit-oriented development, traffic calming, and a pedestrian-/bicycle-friendly environment was consistently noted.

At the community workshops, there were many requests for more pedestrian facilities, especially more connections between neighborhoods, better connectivity to parks and trails, and an improved pedestrian environment along roads with heavy traffic, particularly El Camino Real. The most frequent comments regarding pedestrian issues have been divided into general and location-specific comments. General comments are:

- Foster village centers with pedestrian-accessible destinations for daily goods and services.
- Improve wayfinding for paths and trails.
- Increase connectivity between neighborhoods with new trails.
- Improve balance between space allocated for cars and space allocated for nonmotorized modes.

- Locate housing close to services and jobs to reduce the need for driving.
- Reduce automobile dependence by improving modal alternatives.
- Improve access to schools and reduce cut-through traffic in neighborhoods.

Location-specific comments are:

- Improve pedestrian connectivity at the San Antonio Center.
- Make Castro Street a pedestrian-only zone in the downtown area.
- Improve walkability along El Camino Real by reducing speeds, widening sidewalks, installing more pedestrian crossings, and shortening pedestrian crossing distances using curb extensions, etc.
- Provide more pedestrian and bicycle connections across major roads, including highways.
- Complete the Stevens Creek Trail.
- Extend the Hetch Hetchy Trail westward.

More detailed comments for each neighborhood can be found in Appendix D.

Public Comments from the Pedestrian Master Plan Process

As part of the PMP process, residents were asked to identify successful and unsuccessful pedestrian infrastructure in Mountain View. Responses were collected via an online interactive map, which generated roughly 250 comments; e-mail, which gathered approximately 30 e-mails; and hard copy maps, which retrieved 22 maps. The comments generally fell into the following categories:

- **Trails.** Mountain View's trails are very popular, both for commuting and recreational uses. Public participants suggested numerous access improvements and trail extensions.
- **High Vehicle Speeds.** Some streets, including Central Expressway and El Camino Real, are designed predominantly to carry traffic at high speeds. Many people found speeding to be a serious issue and noted that the width of some streets may encourage high vehicle speeds and be out of proportion with the surrounding neighborhoods.

- **School Traffic.** There were many comments regarding speeding, inattentive driving, and rolling through stop signs in front of schools and in the immediate school vicinity.

- **Connectivity.** Connectivity is a measure of how easily and directly people can get from origins to destinations. A lack of connectivity poses a relatively minimal inconvenience to drivers, but to pedestrians, a nonpermeable street layout marked by dead-ends, which divert walkers off the direct route, can present major barriers or long detours. Some concerns included:

  - Fenced-in developments, which made pedestrian travel difficult. Developments that have streets terminating in cul-de-sacs, which provide no access between abutting neighborhoods.

  - Cleanliness and safety of bicycle and pedestrian underpasses on busy streets.

- **Highway Crossings.** Pedestrian facilities at highway junctions (on-ramps and off-ramps) often feature nonsignalized crosswalks, and many drivers do not stop for pedestrians.

- **Access to the Caltrain Station.** Many respondents felt that pedestrian access to Caltrain could be further improved.

- **Maintenance.** Many residents used the opportunity to comment on road maintenance. Long-deferred maintenance of sidewalks and street trees was a common concern. A related concern involved the disruption of continuous pedestrian facilities during maintenance work.

The full list of public comments can be found in Appendix E.

CHAPTER 3 RECOMMENDATIONS

3.1 Context

The Mobility Element (Chapter 4) of the City's recently adopted 2030 General Plan includes goals and policies supporting the City's efforts to provide a range of mobility options for the community. The goals, policies, and action items identified in the PMP build on the mobility-related goals of the 2030 General Plan by more specifically addressing the pedestrian-related needs of the community.

In developing the pedestrian-related goals, policies, and action items presented in this document, staff relied on the City's 2030 General Plan, 2008 Environmental Sustainability Task Force Final Report, Unimproved Street Policy, Americans with Disabilities Act (ADA) Transition Plan, Capital Improvement Program, Parks and Open Space Plan, Neighborhood Traffic Management Program, relevant local and regional policy documents, and data gathered for the Existing Conditions Chapter of the document to guide its efforts.

Goals, policies, and action items were refined based on public comments received during the 2030 General Plan update, the PMP development processes, and input received from the City's B/PAC and CTC during their reviews of draft PMP documents.

3.2 Recommended Pedestrian-Related Goals, Policies, and Actions

As an implementation tool of the 2030 General Plan, the goals, policies, and action items identified in this PMP support and complement the mobility-related goals of the 2030 General Plan, specifically the Complete Streets (MOB-1), Accessibility (MOB-2), Walkability (MOB-3), Safe Routes to Schools (MOB-6), and Maintenance (MOB-11) goals.

The PMP repeats the same titles for its goals; however, the supporting policies and action items under each goal provide greater focus on addressing the pedestrian-related needs of the community and improving the pedestrian environment in Mountain View.

Pedestrian Master Plan Goal 1: Complete Streets

Streets that safely accommodate all transportation modes and persons of all abilities

The Complete Streets policies and actions described below encourage efficient and attractive streets that consider the needs of diverse members of the community, balance the different modes of transportation, promote physical activity, and support environmental sustainability.

Policy 1.1—Multimodal Planning

Adopt and maintain master plans and street design standards to optimize mobility for all transportation modes.

Actions

1.1.1 **Mobility Plans—**Ensure mobility plans include or reference priority project lists intended to maintain and enhance the multimodal transportation system, including the needs of pedestrians.

1.1.2 **Multimodal Design—**Update street design standards to address roadway function, adjacent land use, and accommodations for all modes, including the needs of pedestrians.

Policy 1.2—Accommodating All Modes

Plan, design, and construct new transportation improvement projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, and persons of all abilities.

Actions

1.2.1 **Complete Streets—**Implement complete streets policies and standards that consider pedestrian needs in new street design standards, new streets projects, and in street rehabilitation projects.

1.2.2 **Targeted Standards—**Consider additional corridor-specific and/or Precise Plan-based street design standards and guidelines to enhance the pedestrian environment.

Policy 1.3—Pedestrian Placemaking

Promote pedestrian improvements that increase connectivity between neighborhoods, provide opportunities for placemaking, and foster a greater sense of community.

Actions

1.3.1 **Pedestrian Connections—**Ensure Precise Plans and zoning standards include guidelines for public greenways to create strong pedestrian connections, particularly in locations where large blocks are prevalent and vehicular through-connections may not be feasible.

1.3.2 **Development Review—**Use the development review process to identity opportunities for pedestrian improvements as part of private development projects and along adjacent street frontages.

1.3.3 **Grade Separations—**Support plans for new grade-separated infrastructure and updates to existing infrastructure to reduce conflicts between modes and improve accommodations for pedestrians.

Policy 1.4—Street Design

Ensure street design standards allow for a variety of public and private roadway widths.

Actions

1.4.1 **Street Grid—**Identify and leverage opportunities for a street grid of smaller blocks and improved connections as parcels redevelop.

Policy 1.5—Traffic Calming

Provide traffic-calming improvements, especially in neighborhoods and around schools, parks, and gathering places.

Actions

1.5.1 **Traffic Calming—**Provide traffic-calming improvements through the City's Neighborhood Traffic Management Program (NTMP).

1.5.2 Neighborhood Traffic Management Program—Update NTMP guidelines to ensure they include up-to-date traffic-calming options.

Pedestrian Master Plan Goal 2: Accessibility

Streets that safely accommodate all transportation modes and persons of all abilities

The accessibility policies and actions described below have been developed to assist all users of the public right-of-way access, public space, and community life, regardless of age or ability.

Policy 2.1—Broad Accessibility

Improve universal access within private developments and public and transit facilities, programs, and services.

Actions

2.1.1. Sidewalks and Lighting—Encourage separated sidewalks and lighting during review of new development projects and significant rehabilitation or expansion projects.

2.1.2 ADA Accessibility—Implement and enforce requirements for ADA accessibility at public facilities and during review of private development projects (e.g., parking, paths of travel, building access, and curb ramps).

2.1.3 Transportation Plans—Ensure bicycle, pedestrian, and other transportation plans consider pedestrian access improvements to public facilities, programs, and services.

Pedestrian Master Plan Goal 3: Walkability

A safe and comfortable pedestrian network for all ages and abilities at all times

The walkability policies and actions described below encourage a livable, healthy, sustainable, and connected City, with a safe and comfortable pedestrian network between its various neighborhoods, parks, trails, employment centers, community facilities, village centers, and commercial areas.

Policy 3.1—Pedestrian Network

Provide a safe and comfortable pedestrian network.

Actions

3.1.1 Pedestrian Master Plan—Regularly update and implement the goals and policies of the Pedestrian Master Plan.

3.1.2 Sidewalk Database—Maintain a database of missing sidewalk segments and explore opportunities to close gaps in the sidewalk network.

3.1.3 Pedestrian Paths—Include publicly accessible pedestrian paths in major new developments and public facilities and ensure that they are clearly identified and safe.

3.1.4 Curbs, Gutters, and Sidewalks—Implement existing policy to install curbs, gutters, and sidewalks where desired on unimproved local streets and identify funding for the improvements.

3.1.5 Unimproved Street Policy—According to City policy, create a set of guidelines to improve pedestrian accommodation where sidewalks are not desired by neighborhood residents.

3.1.6 Sustainable Streetscapes—Consider adopting and/or updating sustainable streetscape standards and guidelines for public improvements and frontage design of private development aimed at creating attractive pedestrian environments, particularly along high-traffic roadways.

Policy 3.2—Pedestrian Connections

Increase connectivity through direct and safe pedestrian connections to public amenities, neighborhoods, village centers, and other destinations throughout the City.

Actions

3.2.1 Connections through Superblocks—Develop pedestrian improvement standards aimed at breaking down large blocks where vehicular intersections are not feasible or desirable.

3.2.2 Existing Neighborhoods—Identify and enhance pedestrian facilities and connections through existing neighborhoods to commercial locations and amenities.

3.2.3 Pedestrian Crossings to Public Facilities—Improve and enhance pedestrian crossings to parks and other public facilities in accordance with current standards and best engineering practices.

3.2.4 Safety and Security—Encourage building design features in new developments, such as windows and entries oriented towards public pathways, to improve the safety and security of pedestrians.

Policy 3.3—Pedestrian Crossings

Enhance pedestrian crossings at key locations across physical barriers.

Actions

3.3.1 Key Pedestrian Crossings—Develop a priority list for enhanced pedestrian crossings along key barriers, such as railroad tracks, State highways, and key arterial and collector streets.

3.3.2 Pedestrian Connections—Identify and prioritize pedestrian access to connect neighborhood cul-de-sacs and connect neighborhoods to the City-wide trail system.

Policy 3.4—Avoiding Street Widening

Preserve and enhance City-wide pedestrian connectivity by considering alternatives to street widening as a means of improving traffic flow.

Actions

3.4.1 Roadway Reductions—Identify opportunities to reduce roadway widths at specific intersections and along key corridors to enhance pedestrian facilities, including landscape amenities.

Policy 3.5—Walking Outreach

Actively engage the community in promoting walking through education, encouragement, and outreach on improvement projects and programs.

Actions

3.5.1 Bicycle/Pedestrian Advisory Committee (B/PAC)—Support the B/PAC's work on pedestrian facility projects.

3.5.2 Programs to Promote Walking—Implement new and enhanced sustainability and health programs that promote walking.

Pedestrian Master Plan Goal 4: Safe Routes to Schools

Safe and convenient pedestrian access to schools for all children

The Safe Routes to Schools policies and actions described below focus on creating improved pedestrian routes to schools and encouraging their increased use through outreach and education, eliminating barriers, and improving safety for schoolchildren.

Policy 4.1—Safe Routes to Schools

Promote Safe Routes to Schools programs for all schools in the City.

Actions

4.1.1 Funding—Pursue public and private agency grant funding sources for Safe Routes to Schools programs.

Policy 4.2—Prioritizing Projects

Ensure that pedestrian safety improvements include projects that enhance safe accessibility to schools.

Actions

4.2.1 Filling Gaps—Identify opportunities to install sidewalks and pathways, which may include the acquisition of right-of-way, to complete gaps along routes to schools.

Policy 4.3—Connections to Trails

Connect schools to the City-wide trail system.

Actions

4.3.1 Trail Access—Plan and construct school-accessible trailheads and/or neighborhood access points.

Policy 4.4—Education

Support education programs that promote safe walking to schools.

Actions

4.4.1 Education and Outreach—Work with school districts to develop and distribute Safe Routes to Schools plans and information.

Pedestrian Master Plan Goal 5: Maintenance

Well-maintained transportation infrastructure

The maintenance policies and actions described below promote safe, attractive, and well-maintained facilities supporting all modes of transportation, including walking, bicycling, transit, and vehicles.

Policy 5.1—Funding

Ensure sustainable funding levels for maintaining all City transportation infrastructure.

Actions

5.1.1 New Funding Sources—Ensure mobility plans include opportunities for new funding sources to implement pedestrian system improvements.

Policy 5.2—Prioritize Existing Facilities

Prioritize maintenance and enhancement of existing facilities over expansion.

Actions

5.2.1 Pedestrian Facilities—Prioritize projects that maintain and/or enhance existing facilities.

Policy 5.3—Pedestrian Facilities

Maintain and enhance walking and pedestrian-related facilities to address community needs.

Actions

5.3.1 Existing Facilities—Ensure existing facilities maintain and enhance the pedestrian environment.

Policy 5.4—Life-Cycle Costs

Examine life-cycle costs when comparing project alternatives in order to make the best use of limited City resources.

Actions

5.4.1 Costs—Identify and implement pedestrian projects that create system efficiencies and cost savings.

3.3 Potential Strategies, Projects, and Programs

Based on the pedestrian-related goals, policies, and action items described above, a list of potential strategies, projects, and programs to improve the pedestrian environment in Mountain View has been developed. These projects are examples of focus areas/possible candidates based on public and staff input. There will be City Council review, approval, and funding before they, or others, will be implemented. The projects have been grouped into the following categories, each supporting one or more of the PMP's five goals. A more detailed list of potential pedestrian-related projects by location is provided in Exhibit 2.

- **Road Diets**

  Identification of roadways that may be candidates for road diets (i.e., converting motor vehicle travel lanes into space for landscaping, parking, bicyclists, pedestrians, etc., to reduce the number of travel lanes).

  These projects support the policies and actions identified in PMP Goals 1 and 3.

Bus Stop on Castro Street
Source: Nelson\Nygaard

- **Streetscapes**

  Implementation of streetscape and pedestrian environment enhancements (e.g., pedestrian-scaled lighting, sidewalks with appropriate widths, cross-slopes, grades and surfaces, pedestrian-oriented signage, amenities, and buffer areas separating pedestrians from traffic, narrowed travel lanes, etc.).

  These projects support the policies and actions identified in PMP Goals 1 and 3.

- **Sidewalks**

  Installation of curbs, gutters, and sidewalks where desired on unimproved local streets or creation of a set of guidelines to improve pedestrian accommodation in areas of the City where sidewalks are not desired by neighborhood residents.

  These projects support the policies and actions identified in PMP Goals 2, 3, and 5.

- **Connections**

  Construction of infrastructure projects to bridge/eliminate major barriers inhibiting pedestrian circulation (e.g., major highways and roadways, cul-de-sacs, railroad tracks, fenced/gated developments, and superblocks).

  These projects support the policies and actions identified in PMP Goals 1, 2, and 3.

- **Trails**

  Continued extensions and improvements to the City's trail network.

  These projects support the policies and actions identified in PMP Goals 2 and 3.

- **Intersections**

  Installation of pedestrian-oriented improvements at signalized intersections and nonsignalized intersections (e.g., curb extensions, reduced curb radii, raised pedestrian refuge medians, high-visibility crosswalk markings, advance yield marking, in-street pedestrian crossing signs, flashing yellow beacons, ADA-accessible curb ramps, and sidewalk and crosswalk lighting).

  These projects support the policies and actions identified in PMP Goals 3 and 4.

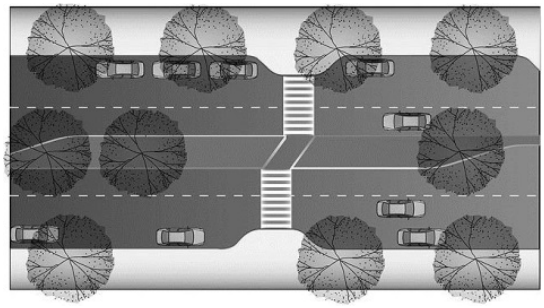
BEFORE **AFTER**

North Whisman Road Unsignalized Intersection Improvement
Source: City of Mountain View

- **Midblock Crossings**

  Implementation of pedestrian safety measures for midblock crossings (e.g., pavement markings, signs, raised center medians, offset crosswalks, curb extensions, etc.).

  These projects support the policies and actions identified in PMP Goals 3 and 4.



Offset Crossing Turns Pedestrians to Face Traffic
Source: ITE, Designing Walkable Urban Thoroughfares, 2009

- **Americans with Disabilities Act (ADA)**

  Continued implementation of the City's ADA Transition Plan.

  These projects support the policies and actions identified in PMP Goals 2 and 5.

Sidewalk gap on Grant Road at Cuesta Park with insufficient space for two wheelchairs to pass.
Source: Nelson/Nygaard

Recently remedied gap on Grant Road at Cuesta Park
Source: City of Mountain View

- **Safe Routes to Schools**

  Continued support and participation in bicycle and pedestrian safety programs for students such as Safe Routes to Schools and Vehicle Emissions Reduction Based at Schools programs.

  These projects support the policies and actions identified in PMP Goal 4.

CHAPTER 4 IMPLEMENTATION AND FUNDING

4.1 Project Identification

This Pedestrian Master Plan will be used to assist in decisions regarding the identification, prioritization, funding, and implementation of strategies, projects, and programs to improve the pedestrian environment in Mountain View.

The identification, prioritization, funding, and implementation of specific projects will be an ongoing and collaborative effort between the public, the City's Bicycle/ Pedestrian Advisory Committee (B/PAC), Parks and Recreation Commission (PRC), Council Transportation Committee (CTC), Senior Advisory Committee (SAC), Youth Advisory Committee (YAC), other City advisory bodies, City staff, City Council, and other public agencies. This process must be flexible to allow for change over time to reflect vehicle traffic, pedestrian and bicycle conditions, new needs and priorities, funding availability (constraints or new funding sources), opportunities to include pedestrian-related projects as part of larger public projects, and/or in coordination with private developments.

The City's B/PAC will play an important role in providing input and recommendations regarding how the goals of this Pedestrian Master Plan document (see Chapter 3) should be used to identify pedestrian features to be included in future public capital improvement projects, private development projects, and updates/revisions to Precise Plan documents.

The list of potential strategies, projects, and programs in Exhibit 2 is only the starting point for addressing the pedestrian-related needs of the community. Future updates of this Pedestrian Master Plan will provide opportunities to identify additional projects to improve the pedestrian environment in Mountain View.

Specific pedestrian-related projects may be identified, evaluated, and presented to the City Council for approval through any of the following:

- The City's annual Capital Improvement Program (CIP) development and approval process.
- As an integrated feature in a larger public capital project.
- As an integrated feature in a private development project.

Announcements regarding the availability of competitive or other grant funding sources for certain types of pedestrian-related improvements may also generate

new opportunities for pedestrian-related projects. The City will actively seek these funding sources to fund pedestrian-related improvements. In some instances, this may require the City Council to allocate matching funds to implement projects.

4.2 **Project Prioritization**

City resources to fund capital improvement projects, including pedestrian-related improvement projects, are limited. ''These funding challenges not only impact City-funded projects, but can also impact the City's ability to provide matching funds for some grant-funded projects. A methodology to prioritize currently identified and future pedestrian-related capital projects competing for public or other funding resources is needed to ensure that limited funds are allocated in the most effective way to respond to community priorities and needs.

Based on the recommended pedestrian-related goals, policies, and actions outlined in Chapter 3, as well as input received from the City's B/PAC, CTC, and the public, the following pedestrian project prioritization criteria have been developed:

- Pedestrian Network Connectivity and Improvement
- Serving Pedestrian Trip Generators and Attractions
- Travel Routes to/near Schools
- Safety
- Walkability
- Implementation.

Each of the six criteria is described in more detail below.

- *Pedestrian Network Connectivity and Improvement (20 points maximum)*

  This criterion assesses how a proposed project will improve the existing pedestrian network. Higher scores will be given to projects that:

  – Connect to/extend/enhance the existing pedestrian network (e.g., additional east/west pedestrian trails/pathways, connections to pedestrian facilities in adjacent jurisdictions).

- Enhance pedestrians' ability to cross existing barriers such as railroad tracks, State highways, and key arterial and collector streets.

- Address gaps in existing pedestrian-serving facilities and networks (e.g., sidewalks).

- For private development projects and projects that provide significant community benefits to improve the pedestrian environment.

- Enhance ADA-compliant facilities (e.g., curb ramps, push buttons, and audible signals).

- Enhance connections between streets and travel pathways.

- *Serving Pedestrian Trip Generators and Attractions (20 points maximum)*

  This criterion evaluates how a proposed project will improve access and connectivity to and within pedestrian trip generators and attractions other than schools (e.g., neighborhood commercial centers, employment centers, City facilities, Shoreline Amphitheatre, private development projects, etc.) through one or more of the following:

  - Integrating pedestrian facilities/network connections to and within trip generators/attractions.

  - Enhancing pedestrian facilities in an area (residential and/or commercial) with dense land uses and/or high pedestrian activity.

  - Establishing/enhancing connections to City facilities (e.g., Community Center, Senior Center, Library, Teen Center, City Hall).

  - Establishing/enhancing connections to special needs areas/areas of concern (e.g., parts of the City that face particular transportation challenges, either because of affordability, disability, or because of age-related mobility limitations).

  - Providing multiple pedestrian pathways into and out of trip generators and attractions.

  - Providing/improving connections to other City pedestrian network/ open space facilities (e.g., Stevens Creek Trail, Permanente Creek Trail, Hetch Hetchy Trail, City parks, Shoreline at Mountain View).

- Creating/enhancing connections to community services (e.g., medical facilities/hospital, retail services, social services).

- Establishing/enhancing connections to facilities serving other transportation modes (e.g., Downtown Transit Center, San Antonio Transit Center, Caltrain Stations, VTA Light Rail Stations, Bay Area Bike Share station locations, car share locations, etc.).

- *Travel Routes to/near Schools (20 points maximum)*

  This criterion evaluates how a proposed project will improve the safety of travel routes to and near schools through:

  - Educating K-12 students and parents, and older/adult students, on how to walk safely to and near schools.

  - Encouraging walking as a transportation mode to/from school.

  - Improving pedestrian access, connections, and facilities near schools.

- *Safety (20 points maximum)*

  This criterion evaluates how a proposed project provides pedestrian safety improvements in/at:

  - Locations/areas with a history of accidents and/or collisions involving pedestrians.

  - High traffic volume and/or speed zone locations with significant pedestrian activity/interaction.

  - Locations/areas that have been identified as potentially in need of improvement by the public, City staff, the B/PAC, and/or other advisory bodies.

- *Walkability (15 points maximum)*

  This criterion assesses how a proposed project encourages walking as a mode of transportation and/or improves the walkability of the community through one or more of the following:

  - Improving the overall streetscape to be more inviting to pedestrians, including those with special needs/disabilities.

- Enhancing pedestrian facilities and convenience (e.g., benches, trash receptacles, etc.).

- Addressing pedestrian comfort and safety needs through improved design, lighting, visibility, etc.

- *Implementation (10 points maximum)*

  The ease or complexity of funding and constructing a proposed project is evaluated under this criterion. Specific evaluation factors include:

  - The availability of funding for the project (e.g., City, grant, other).

  - Whether or not a feasibility study (including environmental review) is required.

  - The level/complexity of environmental review required (e.g., California Environmental Quality Act (CEQA) review, including Categorical Exemption, Negative Declaration, Environmental Impact Report, and/or National Environmental Policy Act (NEPA) review).

  - If the project can be completed as part of/in conjunction with another project (either public or private).

  - Whether coordination/approval from other jurisdictions/agencies will be required. Depending on the project, this may include coordination/ approval from any of the following: neighboring jurisdictions, Caltrans, PG&E, Santa Clara County, California Department of Fish and Wildlife, Santa Clara Valley Water District, Caltrain, Bay Area Air Quality Management District, Valley Transportation Authority, local school districts, etc.

  - Right-of-way and/or easement acquisition requirements for the project.

  - The complexity of design and construction work required.

  - Whether or not the project is shovel-ready.

Based on the prioritization criteria discussed above, proposed pedestrian-related improvement projects can be evaluated on a scale of 0 (lowest score) to 105 (highest score) depending on how well the projects address/satisfy the

requirements of each of the prioritization criteria. Generally, projects receiving higher scores will be given higher funding priority over projects with lower scores.

Project prioritization criteria have been assigned weights/values reflecting current community goals and priorities. These weights/values can and should be reassessed and revised in subsequent updates of this Pedestrian Master Plan to reflect changing conditions and needs in Mountain View's pedestrian environment.

These project prioritization criteria can be used by City staff and decision-makers to identify which pedestrian-related strategies, projects, and programs described in Chapter 3 and Exhibit 2 should be prioritized for possible inclusion in the City's annual Capital Improvement Program as part of a private development or public capital project, or as a candidate project when grant funding opportunities arise.

4.3 Project Funding and Implementation

Pedestrian-related improvement projects may be funded and implemented as:

- Part of the City's annual CIP.
- An integrated feature in a larger public capital improvement project.
- An integrated feature in a private development project.

Capital Improvement Program

Although a significant source of funding for pedestrian-related capital projects, the City's Capital Improvement Program should not be considered the only potential funding source for pedestrian-related improvements. Given the constrained nature of this funding, the City must actively pursue other opportunities to fund projects (e.g., grant funding or funding from other government or private sources) and/or ensure a project's implementation through other means (e.g., as a requirement for City approval of private development or redevelopment projects).

Grants

The City of Mountain View has been successful in securing grant funds for pedestrian-related projects in the past, including the grant funding used to develop this Pedestrian Master Plan, and funding to support capital projects such as the construction and extensions to the Stevens Creek and Permanente Creek Trails, improvements to the Mercy Street/Calderon Avenue intersection, and other sidewalk, curb, and crosswalk improvements throughout the City. The City will

continue to actively seek grant funding for pedestrian-related improvements in the future.

Grant funding agencies may look more favorably on funding applications from jurisdictions that have committed resources to the development of a pedestrian master plan and a list of potential strategies, projects, and programs to improve the pedestrian environment in the community. The development of this Pedestrian Master Plan may improve the City of Mountain View's position relative to other agencies when seeking grant funding in the future.

Exhibit 3 provides an overview of Federal, State, regional, and local funding sources, indicating their purpose, intended use, and applicability to the programs, projects, and strategies identified in Exhibit 2.

Larger Public Capital Improvement Projects

The City may also wish to leverage the unique environment of a proposed larger public capital improvement project to include pedestrian-related enhancements (e.g., sidewalk improvements, benches/seating areas, pedestrian bulb-outs, enhancements to crosswalks, landscaping, lighting, etc.).

Improvements can be integrated into the design of larger public capital projects to improve pedestrian safety, increase pedestrian accessibility, and/or enhance the pedestrian environment (e.g., opportunities for complete streets design, including shorter/more direct crosswalks, more usable public space, safe/comfortable travel paths, etc.).

Private Development/Redevelopment Projects

Opportunities to improve the pedestrian environment in Mountain View can also be identified, encouraged, and/or required during the City's review of private development and redevelopment projects. The City's development review process can be an ideal opportunity to work with private developers to discuss the possible inclusion of pedestrian-related improvements as part of their projects (e.g., frontage design improvements, sidewalk enhancements, design encouraging pedestrian access and connections, wayfinding, etc.). It is also an opportunity to ensure that connectivity and access to existing pedestrian facilities are not significantly impeded or disrupted during the construction of a private development project.

The City may also wish to incentivize the inclusion of enhanced pedestrian-related improvements through higher permitted densities or floor area ratios for private developments. These improvements can be constructed on-site as part of the

development or redevelopment project, or developers can decide to fund the construction of nearby off-site pedestrian improvements (e.g., trail projects,median enhancements, or other Complete Street amenities, intersection enhancements, etc.) that provide a wider benefit to the community.

CHAPTER 5 PERFORMANCE MEASUREMENT AND MONITORING

5.1 Performance Measures

The pedestrian-related goals, policies, and actions described in Chapter 3 establish a vision and framework for improving the pedestrian environment and walkability of Mountain View as envisioned in the 2030 General Plan and its mobility goals.

As the City continues to implement strategies, programs, and projects to improve the pedestrian environment in Mountain View, performance measures can be used to evaluate the City's progress in achieving its pedestrian-related goals.

Performance Measure	Baseline Measurement	Performance Target	Data Collection Frequency	Data Collection Responsibility
Number/Percentage of Students Walking to/ from School (by school)	2012-13 School Year Data Collected through the Vehicle Emissions Reductions Based at Schools (VERBS) Program	Increasing Rate	Four/ School Year	City Staff/ VERBS Contractor
Number/Percentage of Students Receiving Pedestrian Safety Education (by school)	2012-13 School Year Data Collected through the VERBS Program	Increasing and/or Steady Rate	Four/ School Year	City Staff/ VERBS Contractor
Number/Percentage of Collisions • Pedestrian/Vehicle • Pedestrian/Bicycle	2007 Data	Decreasing Rate	Quarterly	City/Police Department Staff
Pedestrian Safety-Related Vehicle Enforcement Measures • Speeding Violations • Disregard of Regulatory Signs • Disregard of Signals • Wireless Device Violation • Failure to Yield to Pedestrian in Crosswalk	2009 Data	Periodic Increases Reflecting Enforcement Activity, Followed by Long-Term Decreasing Rate Reflecting Modified Behavior	Quarterly	City/Police Department Staff

The performance measures presented in this Pedestrian Master Plan are only the starting point for tracking the City's progress in addressing the pedestrian-related needs of the community. New/additional performance measures can be included in future updates of the Pedestrian Master Plan as new performance measures are identified by City staff, the City Council, the B/PAC, or other interested parties; as new data collection techniques become available; as new goals are added to the Pedestrian Master Plan; and/or as additional resources become available for the collections, analysis, and reporting of the data and performance measures.

New/additional performance measures that are added to the Pedestrian Master Plan will include the following attributes:

- The measures will support/track progress on achieving one or more of the Pedestrian Master Plan's five (5) goals (see Chapter 3).

- The data required for the measures can be collected with available resources.

- The data required for the measures is consistently available and allow for comparisons over time (acknowledging some variation in data collection/ reporting methodologies over time reflecting new City/Police Department policies, priorities, and procedures).

- The measures are presented in a manner that is understandable and readily available to the general public.

5.2 **Performance Monitoring and Reporting**

Performance measures will be updated and reported on as the data becomes available. At a minimum, the data will be updated annually.

The data and updates will be posted on the B/PAC's web page, with links to the information available from other locations on the City's website.

CHAPTER 6 CONCLUSION

The City of Mountain View has been successful in implementing pedestrian, bicycle, and transit-friendly policies of the 1992 General Plan and has a robust existing pedestrian infrastructure network. However, gaps in the pedestrian environment still remain and there are opportunities for continued improvements to connectivity, pedestrian safety, and comfort.

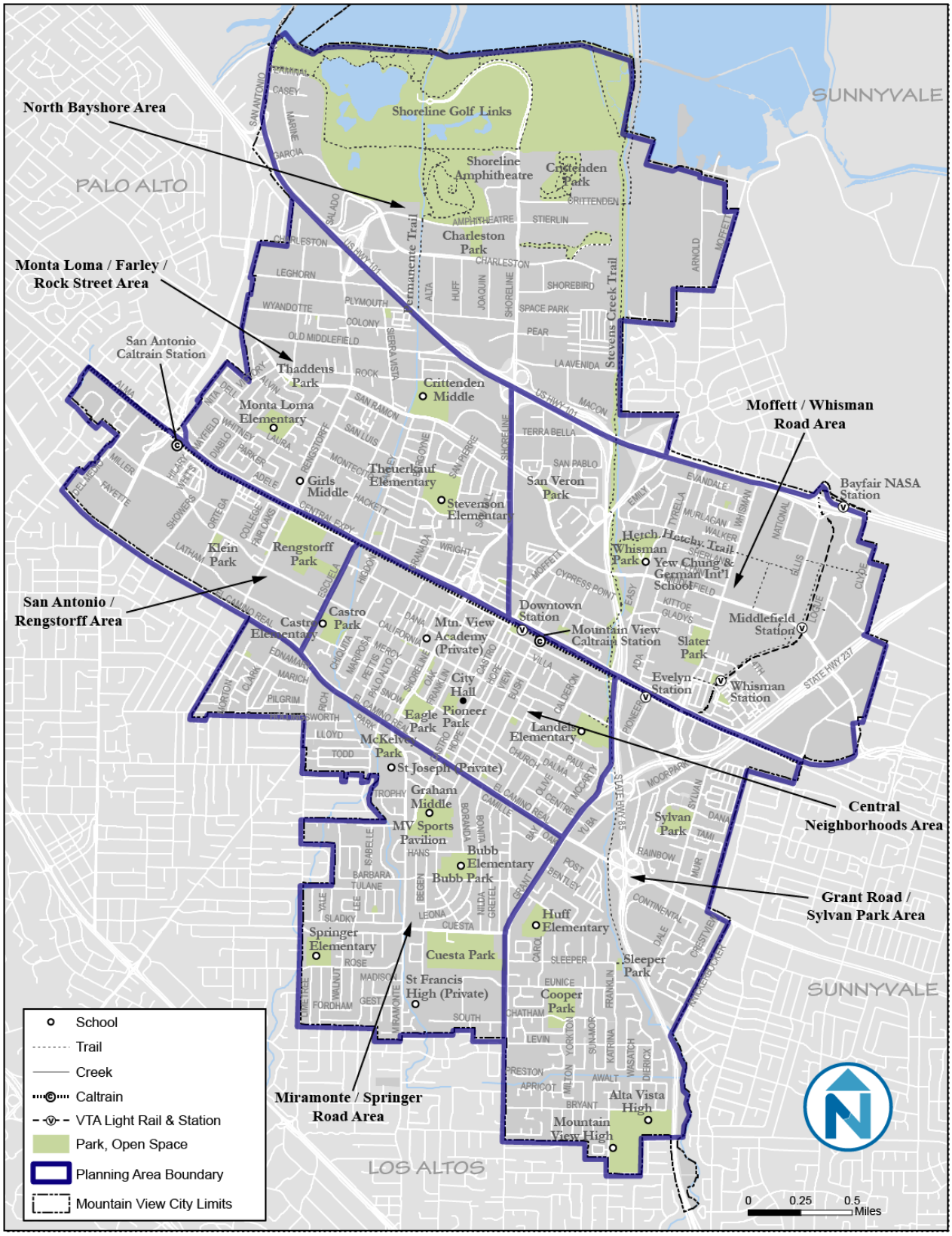
As one implementation tool of the City's recently adopted 2030 General Plan, this Pedestrian Master Plan builds upon the General Plan's mobility goals by guiding the improvements to the community's pedestrian environment and help build a safe, convenient, enjoyable, healthy, and walkable Mountain View.

THIS PAGE INTENTIONALLY LEFT BLANK

EXHIBIT 1

THIS PAGE INTENTIONALLY LEFT BLANK

General Plan 2030 Neighborhood Map



Source: City of Mountain View

THIS PAGE INTENTIONALLY LEFT BLANK

EXHIBIT 2

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF POTENTIAL PROJECTS

These projects are examples of focus areas/possible candidates based on public and staff input. There will be City Council review, approval, and funding before they, or others, will be implemented.

1. **Candidate Locations for Road Diet Feasibility Studies**

   - California Street
   - Middlefield Road
   - Charleston Road (east of Highway 101)
   - Miramonte Avenue
   - Cuesta Drive (east of Miramonte Avenue)
   - Castro Street (between El Camino Real and Miramonte Avenue)
   - Showers Drive (between El Camino Real and California Street)

2. **Potential Streetscape and Pedestrian Environment Enhancement Locations**

   - El Camino Real
   - San Antonio Road
   - Rengstorff Avenue
   - Shoreline Boulevard
   - Montecito Avenue
   - California Street
   - Middlefield Road (east of North Whisman Road)

3. **Potential Sidewalk Improvement Locations**

   - Neighborhoods north of El Camino Real and west of San Antonio Road
   - Streets in the light-industrial sector northeast of downtown, including Logue Avenue, Maude Avenue, and National Avenue, as development proceeds

4. **Candidates for Connectivity Improvements/Elimination of Pedestrian Circulation Barriers**

   - Central Expressway to connect neighborhoods to the San Antonio Road Caltrain Station (as the Mayfield Project is developed)

- At the Mountain View Transit Center, study feasibility of adding an opening with a gate in the fence between the Caltrain parking lot and Evelyn Avenue at Bush Street, and potentially removing parking spaces in the Caltrain parking lot, to allow for direct pedestrian access from Bush Street to the east end of the Caltrain platforms and the protected track crossing
- Central Expressway at Moffett Boulevard
- Villa Street at Mariposa Avenue
- Missing link between Del Medio Avenue to the San Antonio Caltrain Station
- Central Expressway/railroad tracks at Farley Street and Escuela Avenue
- Central Expressway at Ortega Avenue and Thompson Avenue
- Highway 237 at Church Street or Centre Street to the Stevens Creek Trail
- Long, uninterrupted blocks, e.g., extend Meadow Lane to Arroyo Road
- Lida Drive cul-de-sac connection to Fay Way or Rengstorff Avenue
- Martens Avenue to Yorkshire Way, as development occurs

5. **Potential City Trail Network Improvement Locations**

- Permanente Creek Trail extension from Old Middlefield Way to Rock Street and from Rock Street to Middlefield Road
- Formalization of unofficial neighborhood access points to the Stevens Creek Trail
- Access to the Stevens Creek Trail at El Camino Real north side
- Investigate extension of Hetch Hetchy Trail from Middlefield Road to Shoreline Boulevard
- Stevens Creek Trail extension from Dale Avenue/Heatherstone Way to Mountain View High School
- Access to Stevens Creek Trail from NASA Ames
- Access to Stevens Creek Trail at Crittenden Lane
- Access to Stevens Creek Trail at Middlefield Road
- Undercrossing of Permanente Creek Trail at Charleston Road

6. **Potential Intersection Improvement Locations**

Signalized Intersections

- El Camino Real and El Monte Avenue
- El Camino Real and Castro Street
- South Shoreline Boulevard and California Street adjacent to the Mountain View Academy
- Castro Street and Miramonte Avenue adjacent to Graham Middle School
- California Street and Escuela Avenue adjacent to Mariano Castro Elementary School
- South Shoreline Boulevard and Church Street adjacent to Eagle Park northwest corner
- South Shoreline Boulevard and Villa Street
- San Antonio Road at California Street
- Pacchetti Way at California Street

Unsignalized Intersections

- At desired lines (preferred walking routes) along Middlefield Road, El Camino Real, and Bryant Street
- Cuesta Drive and Begen Avenue
- Barbara Avenue and Leona Lane, Barbara Avenue and Montalto Drive, and Hans Avenue and Boranda Avenue adjacent to Bubb Elementary School
- Calderon Avenue and Mercy Street and Mercy Street and Frances Way adjacent to Landels Elementary School
- Rose Avenue and Orangetree Lane, Rose Avenue and Appletree Lane, and Rose Avenue and Walnut Drive adjacent to Springer Elementary School
- San Pierre Way and San Luis Avenue, San Pierre Way and Ormonde Way, and San Pierre Way and San Domar Drive adjacent to Theuerkauf Elementary School
- Castro Street and Sonia Way and Hans Avenue and Miramonte Avenue adjacent to Graham Middle School
- Carmelita Drive and Martens Avenue adjacent to Huff Elementary School
- Middlefield Road, Independence Avenue, and Thaddeus Drive

7. **Potential Midblock Crossing Improvement Locations**

- Permanente Creek Trail crossings
- Along Middlefield Road and El Camino Real
- Barbara Avenue at Bubb Elementary School
- Middlefield Road at the light rail station with an existing desired line

8. **ADA Transition Plan**

- Continued implementation of the City's ADA Transition Plan

9. **Pedestrian Safety Programs for Students**

- Continued City support and participation in pedestrian safety programs for students such as the Safe Routes To School and Vehicle Emissions Reductions Based at Schools (VERBS) programs

10. **Pedestrian Technical Guidelines**

- Develop pedestrian technical guidelines for large office complexes, retail centers, mixed-use, and residential projects

EXHIBIT 3

THIS PAGE INTENTIONALLY LEFT BLANK

Local and Regional Funding Sources

Program	Agency	Description	Applicability	Further Information
Community Design for Transportation (CDT) Planning Grants	VTA	The Planning Grants are intended to help local agencies fund efforts to write new, or modify existing city codes and ordinances to help create compact mixed-use communities and pedestrian-friendly streets—particularly along transit corridors and at ongoing transportation hubs.	VTA member agencies such as Mountain View are eligible to apply for these grants to help prepare plans, projects, and policies consistent with CDT program goals. Approximately $500,000 per annual cycle is available for both Policy Planning Grants and Capital Planning Grants.	*www.vta.org/studies/vtp2035/pdf/vtp2035_chapter_4.pdf*
Vehicle Emissions Reductions Based at Schools (VERBS)	VTA	In Fiscal Years 2011-12 and 2012-13, over $4 million was allocated in Santa Clara County (SCC) for projects that meet CMAQ, VTA, and Metropolitan Transportation Commission's (MTC) SRTS programming policies.	VERBS is focused on reducing greenhouse gases by promoting walking, bike, transit, and carpooling to schools.	*www.mtc.ca.gov/funding/STPCMAQ/*
Transportation Development Act (TDA) Article 3	VTA	This program is funded by one-quarter cent of the State's general sales tax. The State of California allocates funds based on population. Article 3 of the TDA makes a portion of these funds available for use on bicycle and pedestrian projects. In the Bay Area, the MTC distributes TDA Article 3 funds.	The MTC requests that each year the Congestion Management Agency (CMA) of each Bay Area county submit a list of TDA Article 3 Program funding priorities. VTA serves as the CMA for SCC. Cities in the County must submit funding requests to both the VTA and MTC for bicycle and pedestrian projects.	*www.mtc.ca.gov/funding/STA-TDA/*

Program	Agency	Description	Applicability	Further Information
Transportation Fund for Clean Air (TFCA) Program Manager (40%)	VTA	As the TFCA Program Manager for SCC, the VTA is responsible for programming 40% of the vehicle registration fee that is collected in SCC. The remaining 60% is allocated directly through the Bay Area Air Quality Management District (BAAQMD).	TFCA funds can be used to purchase or lease clean air shuttle vehicles, transportation demand management (TDM) programs, and bicycle and pedestrian facility improvements. In addition, they can be used to fund transit information projects.	*www.baaqmd.gov/*
Vehicle Registration Fee	VTA	The SCC Vehicle Registration Fee could provide an estimated $11.2 million per year in new transportation funds through a $10 per year vehicle registration fee. This measure (known as Measure B) was approved by Santa Clara County on November 2, 2010 with 51.93% of the vote.	Measure B revenues will be used for projects in SCC, including road repairs, new bike lanes, and improvements to public transportation. Many strategies in this Plan would be eligible for these funds.	*www.vta.org/inside/gov_affairs/vrf.html*
Bicycle Facilities Program (BFP)	BAAQMD	The BAAQMD's BFP provides grant funding to reduce motor vehicle emissions through the implementation of new bikeways and bicycle parking facilities in the Bay Area. The BFP is funded through the TFCA Program.	Off-street, shared-use facilities, including the Hetch Hetchy, Stevens Creek, and Permanente Creek Trails are potential candidates for BFP funds.	*www.baaqmd.gov/Divisions/Strategic-Incentives/Bicycle-Facility-Program.aspx*
Climate Initiatives Innovative Grants	MTC	The Climate Initiatives Innovative Grants are intended to fund high-impact projects that can be replicated at a regional scale.	The program was a "single solicitation."	*www.mtc.ca.gov/planning/climate/climate_grant*

Program	Agency	Description	Applicability	Further Information
Climate Initiatives—Safe Routes to School (SRTS)	MTC	This program complements the County's SRTS Program with funding to try innovative programs and judge their effectiveness and potential for implementation at a regional scale.	Same as above.	www.mtc.ca.gov/planning/climate/climate_grant
Pavement Management Technical Assistance Program (P-TAP)	MTC	Eligible project types include pavement management systems, roadway design projects, and potentially other types of projects related to pavement management.	Eligible jurisdictions include those that submitted the Local Streets and Roads Revenue Survey, those that previously applied for P-TAP funds but were not selected, and past P-TAP recipients that are in need of additional funds. Mountain View is an eligible jurisdiction. A jurisdiction's maximum eligible reward is the number of centerline miles within its boundaries multiplied by $300.	www.mtcpms.org/ptap/index.html

Program	Agency	Description	Applicability	Further Information
Safe Routes to Schools (SRTS)	MTC	The SRTS programs are intended to remove barriers and increase the number of children who walk or bicycle to school. Barriers include lack of or inadequate infrastructure that poses a safety hazard, or lack of outreach programs that promote walking/bicycling through education and encouragement for children, parents, and the community. The SRTS provides funding for cities and counties for infrastructure and noninfrastructure projects.	Excellent funding source for pedestrian safety facilities, pedestrian, and bicycle programs, especially in vicinity of schools.	www.mtc.ca.gov/funding/STPCMAQ/
Safe Routes to Transit (SR2T)	MTC and TransForm	The SR2T Program awards approximately $20 million in grants to facilitate walking and bicycling to transportation hubs and is administered through TransForm, a nonprofit transportation advocacy group.	Pedestrian and bicycle facilities that enhance access to Caltrain and VTA facilities are excellent candidates.	www.transformca.org/campaign/sr2t
Transportation Fund for Clean Air (TFCA) Regional (60%)	BAAQMD	The 60% of TFCA grants distributed at the regional level are managed by the BAAQMD.	TFCA funds can be used to purchase or lease clean air shuttle vehicles, transportation demand management programs, and bicycle and pedestrian facility improvements. In addition, they can be used to fund transit information projects.	www.baaqmd.gov/

Program	Agency	Description	Applicability	Further Information
Transportation for Livable Communities (TLC) Regional Program	MTC	The TLC Program's funding has been doubled to $2.2 billion over the next 25 years as part of MTC's Transportation 2035 Plan.	The TLC Program is designed to support community-based transportation projects that bring "new vibrancy to downtown areas, commercial cores, neighborhoods, and transit corridors." The projects resulting from TLC grants are intended to provide for a range of transportation choices, including walking, support connections between transportation and land use, and should be developed through inclusive community planning.	

State and Federal Funding Programs

Program	Agency	Description	Applicability	Further Information
Safe Routes to School (SRTS, Federal)	Caltrans	The program aims to increase the number of children walking or bicycling to school by removing the barriers that currently prevent them from doing so.	Appropriate projects include adding infrastructure where it is currently missing or unsafe, or funding programs to educate and encourage children and the community at large.	*www.dot.ca.gov/hq/Local Programs/saferoutes/srts.htm*
Safe Routes to School (SRTS, State)	Caltrans	The program aims to increase the number of children walking or bicycling to school by removing the barriers that currently prevent them from doing so.	Appropriate projects include adding infrastructure where it is currently missing or unsafe, or funding programs to educate and encourage children and the community at large.	*www.dot.ca.gov/hq/Local Programs/saferoutes/srts.htm*
Environmental Enhancement & Mitigation (EEM)	Caltrans	The purpose of the EEM Program is to mitigate the negative impacts of changes to existing or new transportation facilities.	Funding may be used for "Roadside Recreation" projects, including greenways, trails, and parks.	*www.dot.ca.gov/hq/Local Programs/EEM/homepage.htm*
Highway Bridge Replacement and Rehabilitation (HBRR)	Caltrans	This program is funded through the Federal Transportation Equity Act (TEA21). It is intended to fund rehabilitation or replacement of bridges over waterways, roads, or other barriers when existing bridges have become unsafe or functionally obsolescent.	Under the program, adding side-walks or bicycle lanes to existing bridges or bridge approaches can be included in the scope of work. Additionally, the program notes that where a new bridge is con-structed, the old bridge can often be used to carry pedestrian and bicycle traffic.	*www.dot.ca.gov/hq/Local Programs/hbrr99/hbrr99a.htm*

Program	Agency	Description	Applicability	Further Information
Highway Safety Improvement Program (HSIP)	Caltrans	The HSIP was designed to reduce traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety programs.	Caltrans expects to apportion approximately $100 million to local agencies in October 2012. Applications are due on July 20, 2012.	*www.dot.ca.gov/hq/LocalPrograms/hsip.htm*
Surface Transportation Programs	U.S. Dept. of Transportation Federal Highway Administration (FHWA) (and Caltrans)	This funding program covers a wide range of transportation improvements, including non-motorized transportation improvements. STP funds may be used to bring sidewalks and intersections into compliance with the Americans with Disabilities Act (ADA). For a full list of eligible recipients, please see the link at right.	Funds could be used to potentially fund a wide variety of improvements.	*www.dot.ca.gov/hq/LocalPrograms/lam/prog_g/g04stp.pdf*

Program	Agency	Description	Applicability	Further Information
Bicycle Transportation Account (BTA)	Caltrans	The BTA provides State funds for city and county projects that improve safety and convenience for bicycle commuters. To be eligible for BTA funds, a city or county must prepare and adopt a Bicycle Transportation Plan (BTP) that complies with Streets and Highways Code Section 891.2. The BTP must be approved by the local agency's Regional Transportation Planning Agency.	Funds can be used for safety improvements for bicycles such as those noted in the plan's strategies.	www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm