3. Existing Conditions

San Mateo is a walkable city. As identified in the General Plan, San Mateo generally has a good distribution of jobs, school, shopping and recreational facilities within walking distance of residential neighborhoods. The City has also implemented programs to support walking. This chapter presents existing pedestrian conditions, including setting and land use as well as pedestrian facilities and programs, in order to identify where new facilities are needed and what programs will better support pedestrian activity in San Mateo.

3.1. Setting and Land Use

Much of San Mateo's pedestrian network can be traced back to the City's early development patterns, which grew outward from the railroad station in Downtown and along El Camino Real. Today, San Mateo is one of the largest cities on the San Francisco peninsula, located between Burlingame, Foster City, Belmont, and Hillsborough. The City has a vibrant mix of land uses **(Figure 3-1)**. Retail, office, institutional, and recreational land uses, and transit stops serve as destinations for pedestrian trips. Retail is largely concentrated at the Hillsdale and Bridgepointe Shopping Centers, along El Camino Real, and in Downtown. Offices are primarily located in office parks along the State Route 92 corridor, with additional office uses in Downtown.

Increasing sidewalk coverage from a ratio of 0.57 (the equivalent of sidewalk coverage on both sides of 30% of all streets) to 1.4 (coverage on both sides of 70% of all streets) could reduce vehicle travel 3.4% and carbon emissions 4.9%.

Lawrence D. Frank, et al. 2011. An Assessment of Urban Form and Pedestrian and Transit Improvements as an Integrated GHG Reduction Strategy. Washington State Department of Transportation.

Single family residential homes account for approximately 34 percent of the City's land area while 14 percent is occupied by multi-family buildings. Many new developments contain mixed-use buildings or combine residential and non-residential buildings close to each other.

Recreational facilities are located throughout the City, with larger facilities located along the waterfront, the Lagoon, and at Sugarloaf Mountain Open Space. Residences east of Highway 101 have the best pedestrian access to recreational facilities. The northwest and southwest areas of the City have the poorest pedestrian access to recreational facilities.

Population growth has been moderate since the 1970's and is expected to continue to grow steadily. The 2010 census identifies the City population at 97,207 (2010). The Association of Bay Area Governments estimates the City will grow to 114,100 (2020) and to 119,800 (2030). San Mateo is actively pursuing infill development opportunities near mass transit to accommodate much of the forecasted population growth.

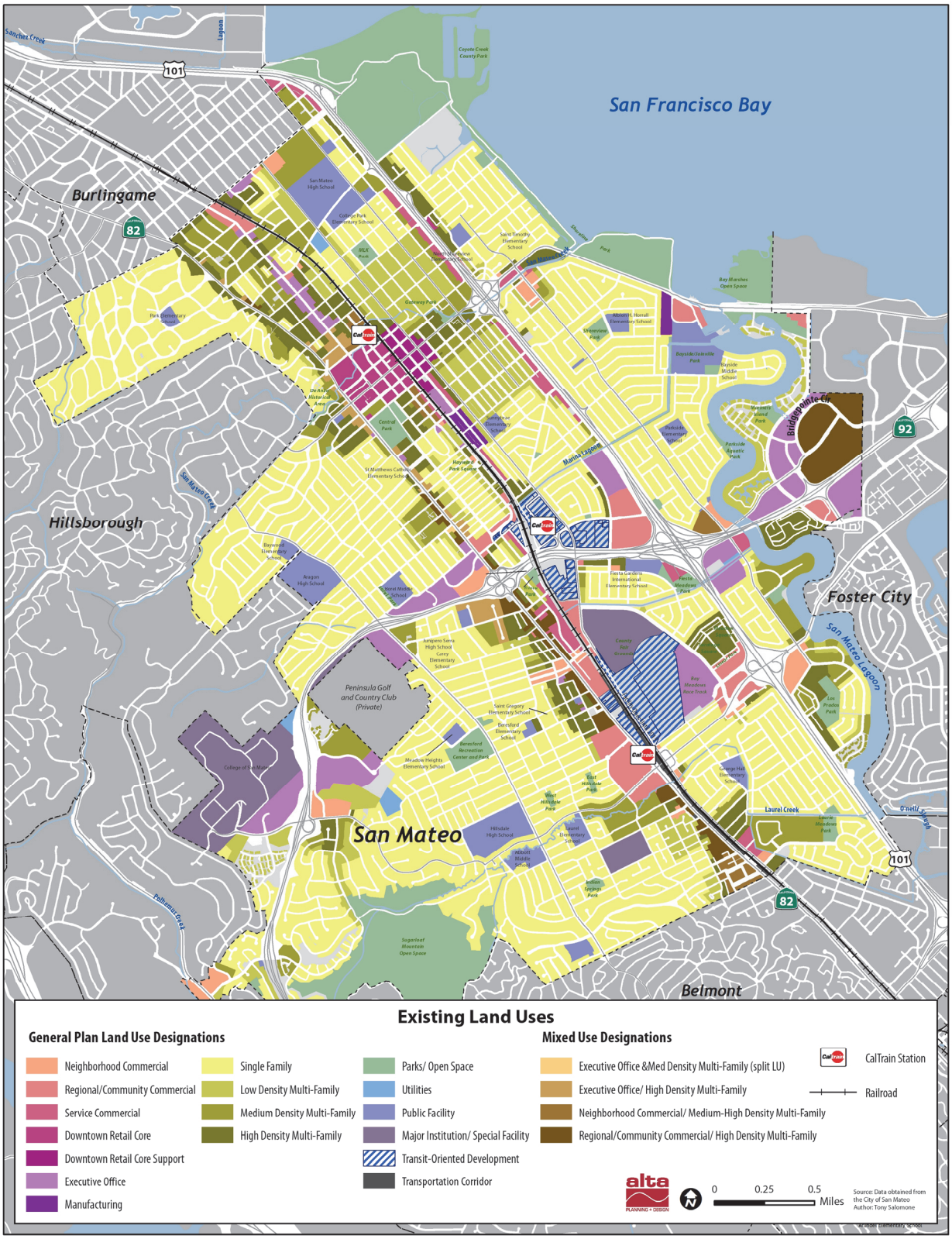


Figure 3-1: Existing Land Uses

3.2. Multi-Modal Connections

Approximately 8.4 percent of San Mateo residents use public transit. Two agencies operate most public transportation services within the City: Caltrain and SamTrans. AC Transit operates one route in San Mateo. On average, 3,300 people board Caltrain each weekday in San Mateo. Though there are no counts of the number of riders who walk to the San Mateo Caltrain stations, it is a local and regional goal to improve pedestrian access to Caltrain. SamTrans operates bus routes throughout the City. Bus stop locations are shown on **Figure 3-6**.

While the City cannot directly improve pedestrian accommodations within station areas, it can improve access to and from transit stops and recommend accommodations to transit agencies. The following sections describe transit in San Mateo.

3.2.1. Caltrain

Caltrain carried nearly 12 million riders system-wide in 2008. In 2010, with a decrease in service and the tough economic environment, ridership decreased for the first time since 2004. System-wide, 36,778 people board Caltrain each weekday. System-wide data **(Figure 3-2)** shows that approximately 29 percent of passengers walk and 19 percent of passengers use transit to get to Caltrain stations.

As **Table 3-1** shows, an average of 3,344 people board Caltrain each weekday at one of three Caltrain stations within San Mateo: Downtown, Hayward Park, and Hillsdale.

The percentage of people who walk to Caltrain stations in San Mateo varies from the percentage of people who walk to Caltrain stations system-wide. In San Mateo, the largest group of Caltrain passengers drive to the stations and park their cars. [9] Improvement to San Mateo Caltrain stations, including parking lot expansion and improved bus access, are considered a key element in increasing local transit usage.

Pedestrian facilities within Caltrain stations typically include sidewalks, crosswalks, stairs, and/or ramps. Every train has one wheelchair accessible car that can accommodate two wheelchairs. Many trains have an onboard wheelchair lift, but the newer cars must use the mobile wheelchair lift or the accessible ramp. Both platforms at the San Mateo and Hillsdale Caltrain Stations are wheelchair accessible.

Due to the fact that Caltrain is predominantly at-grade, pedestrian

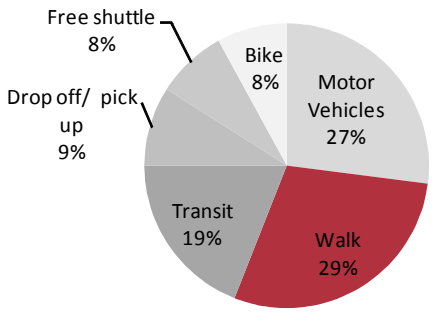


Figure 3-2: Caltrain System-Wide Station Access by Mode

Table 3-1: Average Caltrain Ridership (San Mateo)

Station	Average Weekday Ridership
Hillsdale	1,835
San Mateo	1,282
Hayward Park	227
Total	**3,344**

[9] City of San Mateo General Plan, 2010

circulation is impeded where crossings do not exist. Most track crossings exist in the northern section of the City and in Downtown San Mateo. Only four crossings are located along the approximately three-mile stretch south of 9th Avenue to the Belmont border: the SR 92, 25th Avenue, Hillsdale Boulevard, and the Laurie Meadows Drive/42nd Avenue crossings. All Caltrain track crossings in San Mateo include pedestrian guard arms.

Caltrain's policy emphasizes walking over transit, biking, and auto use.[10] Access strategies that support Caltrain's goal of increasing the percentage of people who walk to Caltrain stations include real-time information, signage/wayfinding, lighting, universal design (i.e., ADA-compliance), pedestrian/bicycle crossing signal priority, inviting public spaces, and traffic calming.

The Hillsdale Caltrain Station is the most heavily used station in San Mateo and provides access to several major destination points: Hillsdale Shopping Center, Bay Meadows Phase II Specific Plan transit-oriented development, and the San Mateo County Events Center. The Hillsdale Station Area Plan (adopted by the City Council on April 18, 2011) proposes new at-grade and grade-separated pedestrian crossings between the Hillsdale Caltrain Station and surrounding residential and commercial development. The San Mateo Rail Corridor Transit-Oriented Development Plan proposes new streets north and south of the Relocated Hillsdale Caltrain Station. The new streets would include grade-separated Caltrain track crossings and at-grade improvements, including sidewalks, street trees and/or planter strips, and crossing improvements.

3.2.2. SamTrans

SamTrans carried 15.2 million passengers throughout San Mateo County in 2008. Several SamTrans routes operate in San Mateo with major transfer points located at the Downtown San Mateo Caltrain Station and at the Hillsdale Caltrain Station/Hillsdale Shopping Center. Most local routes travel through the midsection of the City, extending in a north/south direction on arterials such as El Camino Real, Alameda de las Pulgas, Delaware Street, and Norfolk Street. Service is also provided on Hillsdale Boulevard, Highway 92, Parrott Drive, and Polhemus Road to the outlying east/west regions. While most areas of the City are located within a quarter mile of bus routes, designated bus stops are less accessible. It is SamTrans' policy to restrict passenger boarding and stopping to designated bus stops.

[10] 2010 Comprehensive Access Program Policy Statement, Caltrain, May 2010

SamTrans does not currently require benches or shelters at their bus stops and few San Mateo stops include bus shelters. SamTrans has prepared a Draft Bus Stop Guidebook (September 2010) with recommendations on bus stop and shelter placement. This Guidebook is in draft form and the recommendations presented here are subject to change. The Draft Guidebook states that selected bus stops may be provided with one or more passenger amenities based on the level of ridership and the stop location. Common amenities include shelters, benches, and trash receptacles. Shelter locations are chosen based on passenger boardings, typical climate and other localized conditions. It has been SamTrans practice that, absent other factors, installing a shelter is considered at stops that have 250 or more boardings on an average weekday. For those stops where average daily boardings do not warrant a bus shelter, but where some level of amenity is justified, a free standing bench may be placed.

Local and express service is generally provided until 7 p.m., resulting in a lack of night bus service for several areas of the City. Late night service is provided on El Camino Real and Delaware Street. An express line along US Highway 101 operates daily into San Francisco during the morning and evening commute times. Local bus service to the train stations is also limited to standard commuter times, allowing little schedule flexibility in bus/train transfer outside of standard commute times.

Walking is the primary mode in getting to and from SamTrans: 70 percent of passengers walk to their bus stop and 62 percent walk from their stop to their final destination.[11]

3.2.3. Paratransit

San Mateo is served by two paratransit services: SamTrans' Redi-Wheels and the Peninsula Jewish Community Center's Get Up & Go program as well as private taxi service. Redi-Wheels serves San Mateo County, east of Highway 280, plus the towns of Woodside and Portola Valley. Redi-Wheels transports approximately 1,000 customers daily on 83 buses, vans, and sedans supported by supplemental taxi service.[12] All of SamTrans' buses are ADA-accessible and many persons with disabilities use the regular fixed-route bus service.

SamTrans' Redi-Wheels provides paratransit service to San Mateo and the surrounding areas. Source: www.samtrans.com

People who are unable to use fixed-route transit for some or all of their trips may be eligible for paratransit. Redi-Wheels operates seven days

[11] 2009 SamTrans Rider Survey: Systemwide On-Board Bus Survey Summary Report
[12] Facts and Figures, SamTrans, April 2009

a week, including holidays, from 5:30 a.m. to midnight and up to 24 hours in some areas. In San Mateo, 24 hour service operates along El Camino Real. Non-ADA service operates from 8:00 a.m. to 6:00 p.m., Monday through Saturday, excluding SamTrans holidays. Redi-Wheels is available for any purpose as long as the trip is within the service area. Trips must be prearranged.

The Get Up & Go Transportation Service is available to older adults no longer driving. The service operates on Mondays, Tuesdays, and Fridays, for medical, shopping, and personal appointments in San Mateo County. Paratransit users must register with the Peninsula Jewish Community Center before service is needed.[13]

3.2.4. Shuttles

Free commuter shuttles are available at the Hayward Park and Hillsdale Caltrain Stations. These commuter shuttles are funded through grants[14] and employer participation. The shuttle service operates during commute hours between transit stations and major employment areas. Shuttles operating in San Mateo include:

- The Bridgepointe Shuttle operates between the Hillsdale Caltrain Station and the Bridgepointe business area.
- The Norfolk Area Shuttle operates between the Hayward Park Caltrain Station, office buildings southeast of the Station, and the residential areas of Lakeshore and Fiesta Gardens.
- The Belmont Hillsdale Shuttle runs along Pacific Boulevard/Old County Road and El Camino Real between the Hillsdale and Belmont Caltrain Stations.
- The Campus Drive Area Shuttle operates between the Hillsdale Caltrain Station and the Campus Drive office development.
- The Foster City-Lincoln Centre Caltrain Shuttle runs between the Hillsdale Caltrain Station and businesses in the Lincoln Centre Area in North Foster City.
- The Mariners' Island Area Shuttle operates from the Hillsdale Caltrain Station, serving a business park off Saratoga Drive before continuing to serve participating businesses in Foster City near SR-92.

[13] http://www.pjcc.org/learn/older/getupandgo.html
[14] Operating grants funded by the Bay Area Air Quality Management District (BAAQMD), County/City Association of Governments (C/CAG), San Mateo County Transportation Agency (SMCTA) and either San Mateo or Foster City

- The Oracle Shuttle operates between the Hillsdale and San Carlos Caltrain Stations and Oracle office buildings.
- Foster City's Connections Shuttle operates between most areas of Foster City and the Hillsdale Caltrain Station[15].

3.3. Existing Pedestrian Facilities and Programs

Pedestrian-friendly cities demonstrate achievements in five categories, often referred to as the Five Es. The Five Es are:

- Engineering
- Encouragement
- Education
- Enforcement
- Evaluation

Class I path at Seal Point Park

Engineering relates to infrastructure, such as paths, sidewalks, crosswalks, signage, and maintenance. The other Four Es relate to programs. Production of walking or hiking maps and programs to celebrate outdoor health encourage people to walk. Education programs improve safety and awareness. Programs that enforce legal and respectful driving and walking make pedestrians feel more secure. Evaluation programs provide a method for monitoring improvements and informing future investments. All Five Es work together to enhance the pedestrian experience in San Mateo. Analysis of San Mateo's existing facilities and programs within the framework of the Five Es is one way to assess the City's pedestrian-friendly status.

Downtown Sidewalk

3.4. Engineering

The City's pedestrian facilities include sidewalks, paths, crosswalks, curb ramps, traffic signals, and signage, and the maintenance needed to keep these facilities in good working order. Sidewalks create a space for pedestrian activity separated from motor vehicle traffic. Sidewalks often accommodate a number of activities and can be divided into one or several zones, based on the activities that occur along the sidewalk. Paths separate pedestrians from motor vehicle traffic; however, pedestrians may have to share the path with bicyclists and other non-motorized users. Crosswalks serve as a legal extension of the sidewalk across a roadway, and curb ramps provide a transition between the raised sidewalk and the crosswalk for persons using mobility

Downtown Crosswalk

[15] http://www.caltrain.com/schedules/Shuttles.html

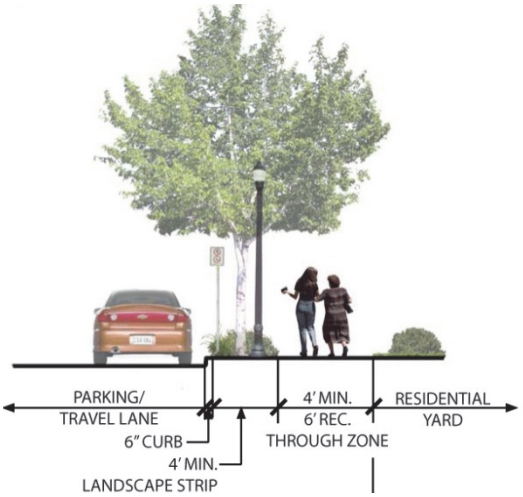


Figure 3-3: Sidewalk Zones in Residential Areas

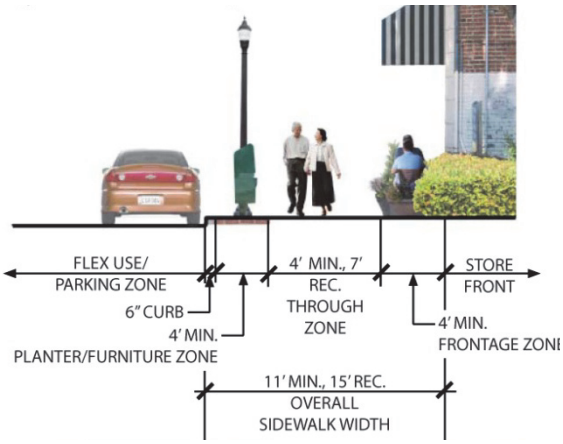


Figure 3-4: Sidewalk Zones in Commercial Areas

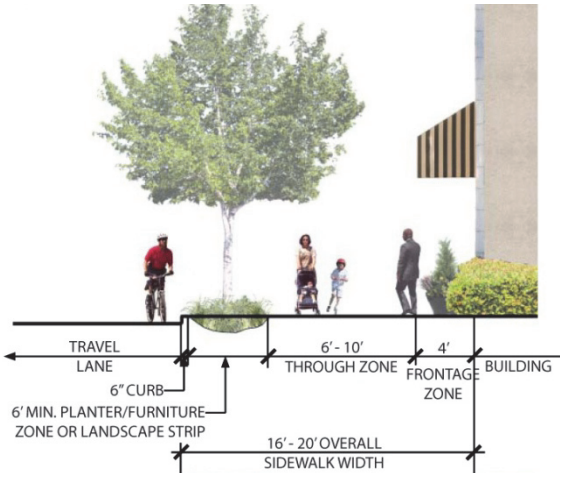


Figure 3-5: Sidewalk Zones in Mixed Use Areas

assistance devices. Traffic controls regulate vehicular and pedestrian crossing movements. Signage directs pedestrians to key destinations and helps manage user groups along multi-use pathways. These elements should form a safe, connected network to encourage people to walk. The following sections present a summary description of existing pedestrian facilities in San Mateo.

3.4.1. Sidewalks

San Mateo has an extensive network of sidewalks. There are approximately 360 miles of sidewalks along collector, neighborhood, and local streets within the City. Sidewalks consist of one or several zones. The zones are named for the primary activity that occurs in the zone. Sidewalk zones in residential areas **(Figure 3-3)** typically include a landscape strip and a through zone. Sidewalks in commercial and retail areas **(Figure 3-4)** usually include a flex use/parking zone, planter/furniture zone, through zone, and frontage zone. Sidewalks in mixed use areas **(Figure 3-5)** often include a planter/furniture zone or landscape strip, through zone, and frontage zone.

The width and condition of sidewalks vary throughout the City. Most sidewalk through zones in San Mateo are between 4 and 5 feet wide; however, widths range from 1 foot to 19.5 feet. The American with Disabilities Act requires a minimum 4 foot wide sidewalk. Sidewalks in the downtown area are generally 7.5 feet in width.

Figure 3-6 presents many elements of the existing pedestrian network.

Sidewalks in the City include either vertical or rolled curbs. Rolled curbs are mountable, allowing vehicles to encroach onto the sidewalk, which can be advantageous for emergency vehicle maneuverability. However, rolled curbs also make it easy for cars to park atop the curb face, potentially obstructing pedestrian movement along an adjoining sidewalk. Rolled curbs exist primarily within single-family neighborhoods as shown in purple on **Figure 3-7**.

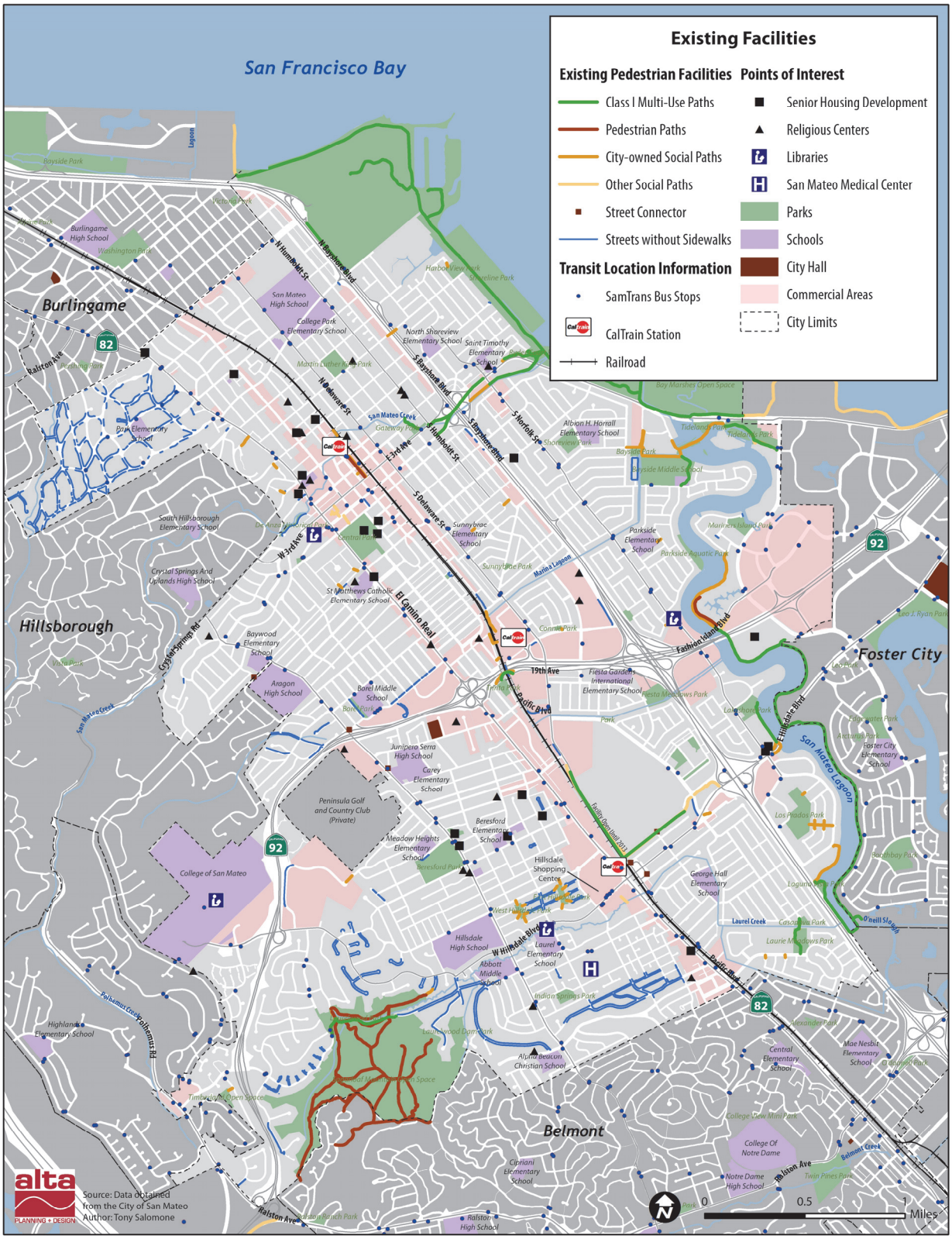


Figure 3-6: Existing Pedestrian Facilities

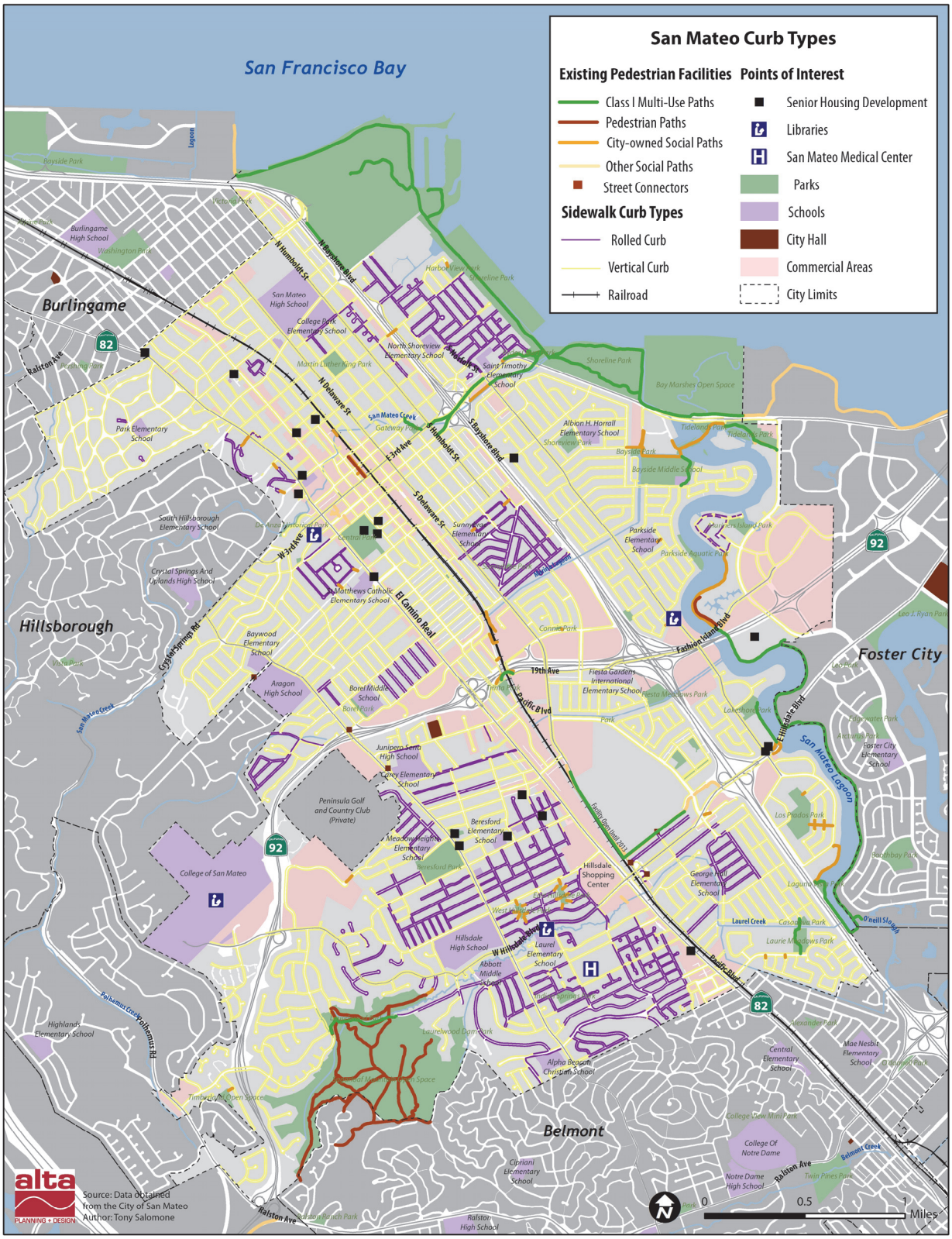


Figure 3-7: Existing Curb Types (Vertical and Rolled)

In an effort to develop a reasonable and cost effective sidewalk repair program, the Public Works Department launched a citywide sidewalk condition assessment project, which was completed in December 2006. This project was designed to inspect a 10 percent representative sample of the City's 360 miles of sidewalk existing at the time of the project. Based on the assessment, it is estimated that approximately 640,000 square feet of sidewalk (0.64 percent of all sidewalks) and 79,000 linear feet of curb and gutter are in need of repair citywide. Typical problems that warrant repair include cracks, uplift, and separation or some combination of these. The estimated repair needs translate to citywide costs of approximately $5.2 million for sidewalk repair and $4.7 million for curb and gutter repair.[16] In 2009, The City Council approved a 15-year Sidewalk Repair Program to help manage the ongoing need for inspections and repairs. The Sidewalk Repair Program directs City staff to inspect and identify potential tripping hazards along sidewalks including areas with a three-quarters (3/4) inch or greater vertical separation.

3.4.2. Curb Extensions

As defined by the Pedestrian and Bicycle Information Center,[17] curb extensions (also referred to as bulb-outs or neckdowns) extend the sidewalk or curb line out into the parking lane, reducing the effective street width (**Figure 3-8**). Curb extensions improve pedestrian crossings by reducing the pedestrian crossing distance, visually and physically narrowing the roadway, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street. Curb extensions placed at an intersection also prevent motorists from parking in or too close to a crosswalk or from blocking a curb ramp. Curb extensions should not extend into travel lanes or bicycle lanes. Downtown San Mateo includes a number of curb extensions at street intersections and at mid-block locations.

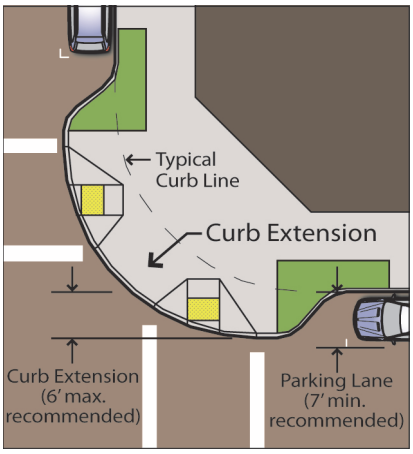


Figure 3-8: Curb Extension

[16] Reflects 2007 dollars
[17] www.walkinginfo.org/engineering/crossings-enhancements.cfm#curb-extensions

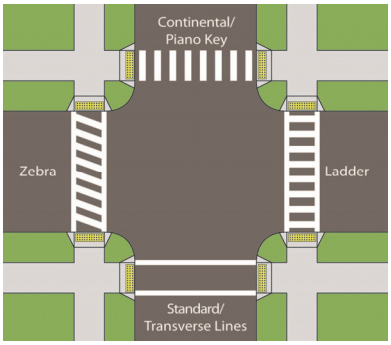


Figure 3-9: Existing Crosswalk Types in San Mateo

3.4.3. Crosswalks

Crosswalks are a legal extension of the sidewalk and provide guidance for pedestrians who are crossing roadways by defining and delineating their path-of-travel. Crosswalks are not required to be marked. However, crosswalk markings alert motorists of a pedestrian crossing point. Marked crosswalks exist throughout the City, typically at intersections along arterial and collector streets. Most marked crosswalks are standard (also called transverse) crosswalks consisting of two parallel white lines marked on the pavement (see **Figure 3-9**). Others crosswalk styles are ladder, continental, or zebra style.

At some marked crosswalks, the City has installed additional treatments, such as distinct paving materials and/or in-pavement flashers. Distinct paving material, such as pavers or colored concrete, further differentiates the crossing zone from the remainder of the street. Examples of marked crosswalks with distinct paving materials include the crosswalks on Park Place, at the Park Place/Saratgoa Avenue intersection, and in Downtown.

In-pavement flashers are a series of amber or white lights embedded in the pavement parallel to a marked crosswalk. The lights are activated either passively by pedestrians passing through or waiting in a detection area, or actively, by push-buttons. The lights alert motorists that a pedestrian is or is planning to cross the street at the crosswalk. Eight marked crosswalks in the City include in-pavement flashers. These crosswalks are located at mid-block locations and do not include other traffic controls, such as a traffic signal or stop sign.

State law requires marked pedestrian crosswalks located in a roadway contiguous to a school building or school grounds to be yellow. Additionally, a marked pedestrian crosswalk located within 600 feet (and in some circumstances up to 2,800 feet) from a school building or school grounds may be yellow.[18] The City has prepared an inventory of marked crosswalks which identifies the crosswalk location, type, color, ownership, and whether or not it is in a school district. In San Mateo, the majority of crosswalks (approximately 73 percent) located within 600 feet of a school are yellow.

[18] CA MUTCD Part 7, 2010

3.4.4. Refuge Islands

Refuge islands (also known as crossing islands, center or median islands, and pedestrian islands) are raised islands placed in the center of the street at intersections or midblock to help protect crossing pedestrians from motor vehicles (see **Figure 3-10**). Refuge islands allow pedestrians to negotiate one direction of traffic at a time, and they enable them to stop partway across the street and wait for an adequate gap in traffic before crossing the second half of the street. Refuge islands have been demonstrated to significantly decrease the percentage of pedestrian involved crashes. The factors contributing to pedestrian safety include reduced conflicts, reduced vehicle speeds approaching the island (the approach can be designed to force a greater slowing of cars, depending on how dramatic the curvature is), greater attention called to the existence of a pedestrian crossing, opportunities for additional signs in the middle of the road, and reduced time in the roadway (referred to as "exposure time") for pedestrians. San Mateo has a number of refuge islands; however, there is currently no City design standard.

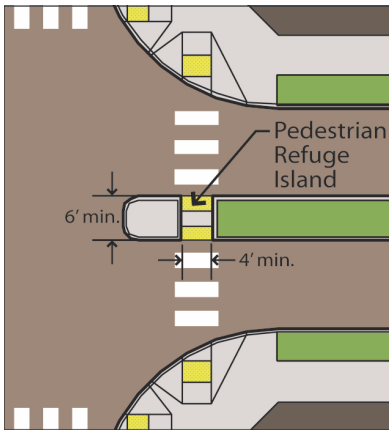


Figure 3-10: Refuge Island

3.4.5. Curb Ramps

Curb ramps ease the transition between a sidewalk and street by creating a "bridge" between the curb height and ground level. Curb ramps provide street and sidewalk access to pedestrians using wheelchairs and strollers. The current standards require curb ramps wherever an accessible route crosses a curb.[19] Curb ramp types at street corners in San Mateo include diagonal and perpendicular ramps (see **Figure 3-11**). Perpendicular ramps are preferable because they direct pedestrians to the correct alignment of the crosswalk. Where feasible, curb ramps on opposite sides of the street or road should align. Curb ramps are required to include detectable warnings or raised truncated domes to provide directional and hazard warning information to pedestrians who are visually impaired. The City installs new curb ramps whenever roadways are resurfaced or reconstructed and upon request (as funding allows). The City recently inventoried the location, condition, and ADA-accessibility of curb ramps within the City limits. As of January 2011, this data is complete. The available data shows that intersections with sidewalks typically have between one and three curb ramps, however data does not show whether the

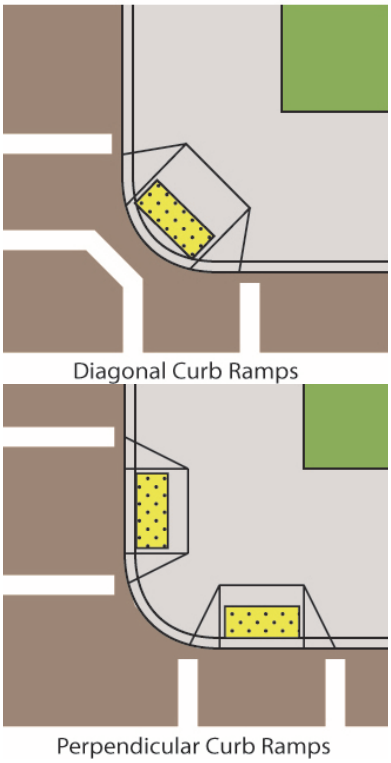


Figure 3-11: Existing Curb Ramp Types in San Mateo

[19] Per ADAAG (Americans with Disabilities Act Assessbility Guidelines), an accessible route is a continuous unobstructed path connecting all accessible elements and spaces of a building or facility, including parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

Pathways (also referred to as Class I Multi-Use Paths) provide a completely separated right-of-way for the exclusive use of pedestrians and bicyclists

ramps are diagonal or perpendicular. All recently upgraded curb ramps have raised truncated domes.

3.4.6. Pathways

The City currently includes 11.67 miles of multi-use pathways. Most pathways are located along the San Francisco Bay, the Lagoon, or within parks and are oriented in a north-south direction. **Figure 3-6** shows the location and extent of multi-use pathways within the City. **Table 3-2** presents the existing pathway lengths and their start and end locations within the City. The City does not own or manage all of the pathways listed in **Table 3-2**; however, City of San Mateo residents do use these facilities.

Table 3-2: Pathways

Name	Start	End	Length (mi)
Existing Class I Multi-Use Pathways			
Sugarloaf Mountain Path	Laurelwood Dr	De Anza Blvd	0.45
Marina Lagoon Path	Highway 92	Shoal Drive	0.51
Coyote Pt	Coyote Point Dr	Shoreview Path	0.45
Shoreview Path	Airport Blvd	City Limit	3.57
Bayside Park Path	Kehoe Ave	Anchor Rd	0.50
N Bayshore Blvd	Coyote Point Dr	E Poplar Ave	0.32
Shoreline Parks Paths	J Hart Clinton Dr	Norfolk Dr	0.26
Fathom Dr	Anchor Rd	Mariners Island Blvd	0.31
E 3rd Ave	Hwy 101	S Norfolk St	0.24
Shoreline Park Paths	Ryder St	Shoreview Path	0.14
Vista Del Mar	Shoal Dr	Windward Wy	0.99
Bayshore Freeway	Kimberly Way	Port Royal Ave	0.44
Laurie Meadows Park	Laurie Meadows Dr	Casanova Dr	0.20
Marina	Lakeshore Recreation Center and Park	E Hillsdale Blvd	0.23
Shoreline Bayfront Path	Lagoon	Marina Lagoon	0.48
16th Caltrain	Railroad Ave	Hayward Park Caltrain Station	0.11
Sawyer Camp Trail	Crystal Springs Reservoir (South)	Crystal Springs Reservoir (North)	0.66
Lagoon	O'Neill Slough	Vista Del Mar	1.93
Bay Meadows	Saratoga Dr	Franklin Dr	0.39
		Existing Pathway Total	**12.18**

3.4.7. Signing

Three types of signage that enhance the pedestrian environment are regulatory, warning, and wayfinding signs.

Regulatory and Warning

The California Manual on Uniform Traffic Control Devices (CA MUTCD) outlines the requirements for a variety of sign types, including:

- Regulatory (e.g., stop, yield, speed limit, pedestrian crosswalk, no parking, sidewalk closed ahead)
- Warning (e.g., pedestrian crossing, school advance warning, school plaque, playground, senior citizen facility, stop ahead)

Figure 3-12: CA MUTCD Regulatory Signs

Regulatory signs inform road users of selected traffic laws or regulations and indicate the applicability of the legal requirements (see **Figure 3-12**). Warning signs alert road users to conditions that might call for a reduction of speed or an action in the interest of safety and efficient traffic operations. Pedestrian facilities, such as crossings and walkways in school areas, are often accompanied by a combination of regulatory and warning signs (see **Figure 3-13**). Multi-use paths require regulatory signs to help manage different user groups. The City has installed CA MUTCD standard signs regulation and warning signs throughout the city.

In addition to standard MUTCD signage, some cities design and produce their own signage. One example is the Seattle Department of Transportation's warning sign that states "Drive Carefully Think of the Impact You Could Make." Another example of city-designed signage is wayfinding signage.

Wayfinding

Wayfinding signage can help pedestrians locate transit, recreational, commercial and/or other key destinations by posting the distance to the destination and the direction to travel. Examples include Redwood City's wayfinding signage in Downtown. San Mateo does not currently have a pedestrian wayfinding signage program.

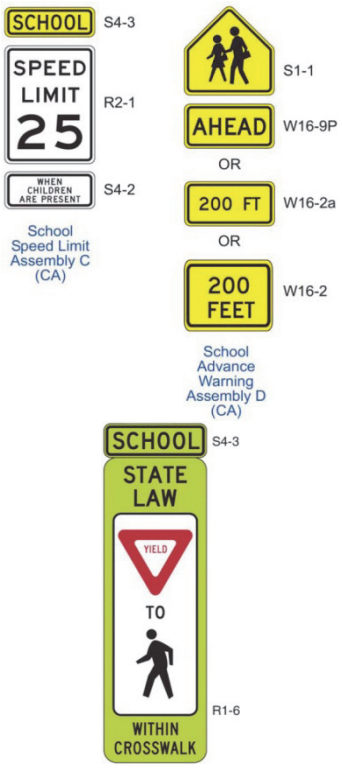
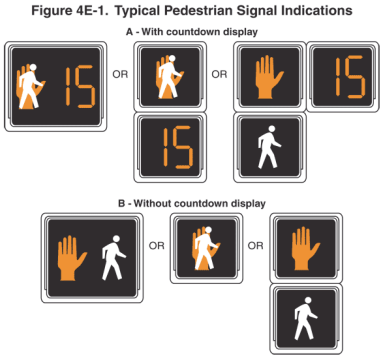


Figure 3-13: CA MUTCD School Area Signs



Source: 2009 MUTCD (National)

Figure 3-14: Pedestrian Signal Indications

3.4.8. Traffic Signals

Pedestrian movement at major intersections is controlled by a variety of signal technologies, including pedestrian signal heads. Pedestrian signal heads[20] are typically installed at signalized intersections with high pedestrian crossing volumes and at school crossings. In San Mateo, the pedestrian crossing phase of any signal include pedestrian signal indications as shown in **Figure 3-14**.

Intersections in San Mateo include two to several traffic signals, depending on the roadway geometries. All signalized intersections in the City of San Mateo have pedestrian countdown signal heads. Typically, pedestrians trigger the pedestrian phase of signal by pressing a pedestrian push button. Most traffic signals (approximately 90 percent) include one or two pedestrian push buttons.

Traffic signals in San Mateo employ standard signal timing of four feet per second;[21] however, the City does adjust signal timing for slower walking rates, such as for young children, disabled, or elderly pedestrians based on need.

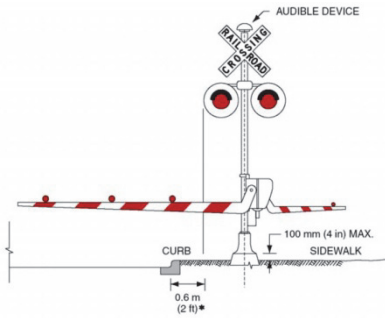


Figure 3-15: Pedestrian Guard Arms

3.4.9. Pedestrian Guard Arms

At-grade railroad tracks, such as Caltrain tracks, can be hazardous for pedestrians to cross. Improvements that alert pedestrians to the presence of an oncoming train include pedestrian guard arms (see **Figure 3-15**). A pedestrian guard arm is an arm attached to a pole that blocks the sidewalk when a train is crossing, similar to arms that cross travel lanes to stop vehicles approaching at-grade crossings. All Caltrain track crossings in San Mateo include pedestrian guard arms.

3.4.10. Lighting

Lighting of the public right-of-way includes street or roadway lighting and pedestrian lighting. Street or roadway lighting, such as street lights, is primarily designed for the safety and comfort of motorists. Street lighting typically illuminates intersections and designated crosswalks; however, the illumination of adjacent sidewalks and walkways is often a separate consideration. Pedestrian lighting is a design factor that improves visibility at night and contributes to the "feel" of a place. Pedestrian lighting typically includes shorter lights

[20] A signal head is an assembly of one or more signal faces together with the associated signal housings. A pedestrian signal head is a signal head, which contains the symbols WALKING PERSON (symbolizing WALK) and UPRAISED HAND (symbolizing DONT WALK), that is installed to direct pedestrian traffic at a traffic control signal.

[21] Signal timing refers to the amount of time allocated for the display of a signal indication (CA MUTCD 2010).

directly above pedestrian walkways, accent lighting that illuminates features on or near a building façade, in-pavement lights, catenary or hanging lights, and interior lighting that spills outward from buildings. Combined, street and pedestrian lighting increase visibility of pedestrians for motor vehicles at night, promote perceived personal security for pedestrians, illuminate potential hazards, and can help create a vibrant and inviting streetscape.

The City has inventoried the over 6,500 street lights in the City, including location, pole type, voltage, and wattage. Public Works staff evaluate infrastructure, including lighting, on a monthly and as needed basis.

3.4.11. Pedestrian-Related Requirements for Development Proposals

Citywide requirements for pedestrian facilities and pedestrian-oriented design are contained in the City's General Plan and Municipal Code. The City has developed design guidelines for commercial areas that include pedestrian-oriented design (e.g., locating windows along ground floor street facades) and pedestrian facilities. These guidelines are summarized in the Urban Design Element of the General Plan. The City's Art in Public Spaces municipal code chapter (Chapter 23.60) establishes a requirement that new commercial and multi-family residential projects valued at three million dollars or more provide for publicly visible art.

Houses with the above-average levels of walkability (as measured by walkscore.com) command a premium of $4,000 to $34,000 over houses with just average levels of walkability.

Joseph Cortright. 2009. "Walking the Walk." CEO's for Cities.

The City of San Mateo has also adopted design guidelines for development proposals that are located within Specific Plan or Master Plan areas including: the Downtown Area Plan; Hillsdale Station Area Plan; Bay Meadows Specific Plan Amendment; El Camino Real Master Plan; Mariner's Island Specific Plan; and the San Mateo Rail Corridor Transit-Oriented Development Plan. Specific pedestrian-related design criteria and standards for these areas are contained in the various documents.

3.4.12. Maintenance

Pathway Sweeping

The City sweeps the Monte Diablo pedestrian overcrossing at a minimum of once per week and aims to sweep the Third Avenue Class I path over US 101 at the same frequency. The City maintains the Shoreline bike path, the bike path from Mariner's Boulevard to Anchor Road, and the path along the water from Lakeshore Park to Hillsdale

Boulevard. The City does not sweep these areas, but trims and sprays to control vegetation.

Sidewalk Repair

Sidewalk repair is coordinated through the City's Sidewalk Repair Program Source: www.cityofsanmateo.org

The City's 15-year Sidewalk Repair Program helps manage the ongoing need for sidewalk inspections and repairs. Under this program, property owners are financially and legally responsible for maintaining the sidewalk fronting their property in accordance with the City of San Mateo Municipal Code Chapter 17.24. Each year, the City inspects a different priority neighborhood and identifies damaged sidewalks. Neighborhood priority is based on the number of trees, number of tree-related problems, and time since past repairs. The City's inspection is followed up with a notice letting property owners know the repair options, the estimated cost and the legal ramifications of non-compliance. A reimbursement program is available to property owners that meet low, very low, and extremely low income requirements.[22] The City maintains sidewalks not directly fronting residential property and within those areas excluded from the program: Community Development Block Grant (CDBG)[23] areas and Downtown Areas. The City inspects the Downtown retail area and CDBG areas annually and makes necessary repairs using parking revenue and CDBG funds, respectively.

3.5. Encouragment

San Mateo residents benefit from encouragement programs administered or funded by numerous organizations, including the Peninsula Traffic Congestion Relief Alliance (Alliance), City/County Association of Governments (C/CAG), San Mateo County Transportation Authority (SMCTA), Metropolitan Transportation Commission, the Bay Area Air Quality Management District, the California Office of Traffic and Safety, the County of San Mateo, and the City of San Mateo. Together, these programs establish the current setting for encouragement in San Mateo.

3.5.1. Transportation Demand Management

The Peninsula Traffic Congestion Relief Alliance (Alliance) is the transportation demand management agency for San Mateo County and funded by the City/County Association of Governments, San Mateo

[22] City of San Mateo Sidewalk Repair Program, 2008
[23] CDBG areas include Central San Mateo, WestShore, and two additional areas as shown on the City of San Mateo Sidewalk Repair Program – Target Areas (15-Year Plan) Map, which is available online at www.cityofsanmateo.org/DocumentView.aspx?DID=7862

County Transportation Authority, Metropolitan Transportation Commission and the Bay Area Air Quality Management District. The Alliance administers a range of programs that work to reduce the number of single-occupancy drivers and commuters, including a step-by-step guide to commute planning and a bike and pedestrian safety program.[24] Through the bike and pedestrian safety program, participants can learn about walking as a safe, stress-relieving commute mode and traffic laws for pedestrians.

3.5.2. San Mateo County Fall Prevention Task Force

Developed in 2003, the San Mateo County Fall Prevention Task Force is comprised of more than 25 community provider agencies, hospitals, nonprofit organizations, and senior centers, including Mills-Peninsula Health Services which has a facility in San Mateo. The mission of the San Mateo County Fall Prevention Task Force is to decrease falls among older adults through advocacy, resource development, and community education. Resources include a booklet and exercise videos on fall prevention and training courses for persons working with older adults in physical activity programs.

3.5.3. Streets Alive San Mateo County

Streets Alive in San Mateo County is building on the global open streets movement. In April 2010, cities across San Mateo County opened streets and highlighted public places such as parks, plazas, and trails as a way to promote healthy outdoor activity for a healthy future. The City of San Mateo was a partner for the 2010 and 2011 events. The 2011 event was held on 5th Avenue between Laurel Avenue and El Camino Real and included yoga, hopscotch and jump rope activities.

Streets Alive San Mateo County is an annual event promoting healthy outdoor activity
Source: www.streetsalivesmc.org

3.5.4. San Mateo Acting Responsibly Together (SMART)

SMART is a citywide public outreach campaign encouraging businesses, schools and individuals to engage in behavior that reduces their carbon footprint. The City provides a website where participants can pledge to reduce their carbon footprint, calculate that reduction, and print or email flyers encouraging others to do so. Interested parties can request a SMART speaker to present at school and community groups about climate change and sustainable lifestyle choices, including walking.[25]

[24] For more information visit www.commute.org
[25] www.ci.sanmateo.ca.us/index.aspx?NID=1536

Patrons enjoying San Mateo's annual Downtown Wine Walk
Source: www.winewalk.org

3.5.5. Downtown San Mateo Wine Walk

From 1984 to 2009, the Downtown San Mateo Association, a non-profit organization representing more than 800 businesses in Downtown San Mateo, hosted the Downtown San Mateo Wine Walk. This event is no longer a regular occurrence. The Wine Walk showcased Downtown's unique character and its shops, restaurants, and businesses. Visitors purchased a wine glass and tasting tickets and visit businesses sampling wines and hors d'oeuvres. Funds from the event were used to provide free holiday activities. The event attracted people from throughout the Bay Area.

Walking school bus

3.5.6. International Walk to School Day

International Walk to School Day promotes walking as a means to enhance the health of kids, improve air quality and the environment, and create safer routes for walking and biking. Beresford Elementary School created four walking bus routes to celebrate International Walk to School Day in October 2010. A walking school bus is a group of children walking to school with one or more adults. Baywood Elementary School held an extravaganza with a D.J. and snacks for its student walkers.

3.6. Education

3.6.1. Bike/Pedestrian Safety Workshops

The Alliance offers employers the opportunity to hold free one-hour bike and pedestrian safety workshops at their business. Employees learn about bicycling and walking as a safe, stress-relieving commute mode and traffic laws for bicyclists and pedestrians.

3.7. Enforcement

3.7.1. Traffic Regulation

The Police Department is responsible for enforcing the California Vehicle Code; including ticketing for red light violations, jaywalking, and other activities that potentially impact pedestrian safety. In addition to vehicular patrols, the Police Department deploys up to two bicycle patrol officers in the Downtown area on an as needed basis. Police bicycle patrols increase the mobility of officers in dense areas. The Police Department does not conduct pedestrian stings due to concerns for officer safety.

The City of San Mateo introduced the Red Light Photo Enforcement program in 2005 to address red light violations at intersections with the highest collision rates. There are three cameras in the City of San

Mateo. The cameras are located at the following intersections: the Hillsdale Boulevard/Saratoga Drive, Hillsdale Boulevard/Norfolk Street, and 4th Avenue/Humboldt Street intersections.

3.7.2. Speed Feedback Signs

Speed feedback signs display the speed of passing motor vehicles, with the intent that speeding motorists will slow down if they are aware of their speed. The Police Department operates two mobile speed feedback signs, which are deployed in response to resident complaints about speeding.

3.8. Evaluation

Evaluation programs measure and evaluate the impact of projects, policies and programs. Typical evaluation programs range from a simple year over year comparison of US Census Journey to Work data to pedestrian counts and community surveys. Pedestrian counts and community surveys act as methods to evaluate not only the impacts of specific pedestrian improvement projects but can also function as way to measure progress towards reaching City goals such as increased pedestrian travel for trips one mile or less.

The City of San Mateo does not currently have pedestrian-related evaluation programs however, establishing a methodology for pedestrian counts has been part of this Master Plan process. To establish a benchmark for existing pedestrian activity, the City conducted pedestrian counts at nine intersections in September 2010. The count results are presented in **Table 3-3**. This and future count efforts can be used as a bench mark to evaluate projects, policies, and programs.

Table 3-3: Existing Pedestrian Activity at Major Intersections

Intersection	Weekday Counts Totals (2 Hours)	Weekend Counts Totals (2 Hours)
3rd & Delaware	203	180
3rd & Dartmouth	106	153
3rd Ave Bridge	70	75
Parkside & Alameda	42	102
4th & El Camino Real	229	355
Alameda & Hillsdale	114	47
Delaware & Concar	71	77
5th & Grant	69	60
3rd & El Camino Real	144	272
Total	**1048**	**1321**

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