

INTRODUCTION

Purpose of the Pedestrian Master Plan

In Southern California driving often seems like our only transportation option. To create walkable communities we must appreciate the pedestrian and create a landscape which makes walking both feasible and pleasurable. Walking communities are healthy communities and to encourage walking communities must be pedestrian friendly. The purpose of the Pedestrian Master Plan (PMP) is to critique the pedestrian landscape in the City of Calabasas, to recognize the positives in Calabasas' existing pedestrian landscape, and to make recommendations

for improvements. These policy recommendations will serve as a guide for future grant proposals, public works endeavors, and legislative decisions that impact pedestrians. In addition the PMP as envisioned is a constituent based plan that aims to compliment the pre-existing General Master Plan already adopted by the City, yet adding further insight to the common goal – setting standards for agency action.

Description of Location

Calabasas is a separate entity from the Los Angeles metropolitan area.

The city is located in western Los Angeles County adjacent to the Ventura Freeway, route 101. Present population is 21,356. Actual land covers 12.9 square miles.

Applicable Federal and State Law

State, Federal and local law have all made issue of pedestrian safety in recent years. The Federal Highways Act (FHWA) Guidance Memorandum states the policy, that every transportation agency should “make accommodation[s] for bicycling and walking a routine part of their planning, design, construction, operations and maintenance activities.”

The California Vehicle Code § 21949 states a legislative finding declaring “that it is the policy of the State of California that safe and convenient pedestrian travel and access, whether by foot, wheelchair, walker, or stroller, be provided to the residents of the state.” The legislature, further stated that their intent was for “all levels of government in the state, particularly the Department of Transportation,” to work towards providing “convenient and safe passage for pedestrians on and across all streets and highways,” thereby increasing “levels of walking and pedestrian travel” while reducing pedestrian fatalities and injuries. Most recently, the

California Department of transportation and the U.S. Department of Transportation crafted Deputy Directive 64, providing that “the department fully consider the needs of non-motorized travelers (including pedestrians, bicyclists, and persons with disabilities) in all programming, planning, maintenance, construction, operations, and project development activities and products. This includes incorporation of the best available design and construction standards in all of the Department’s practices.” Hence, the City of Calabasas has both an ethical and legal responsibility to provide adequate pedestrian facilities which allow safe travel for all pedestrians within Calabasas’ jurisdiction.

POLICY 1: To aspiration Fulfilling Calabasas’ responsibility to adhere to Federal, State, and Local guiding regulations by “fully consider[ing] the needs of non-motorized travelers in all new operations,”

Executive Summary

The following sections identify the existing conditions of the pedestrian landscape, present the constituency's perception of landscape's condition, states policy recommendation for modification to the pedestrian landscape, and gives design guidance for future street improvements.

Section 2, Walkability, examines the nature of a pedestrian friendly environment. In addition it states the benefits of living neighborhoods that are walkable.

Section 3, Calabasas' Pedestrians and the Existing Conditions, presents qualitative analysis which establishing the distance residents are willing to walk and the walking patterns for the city's residents. Also section 3 critiques the pedestrian landscape at present.

Section 4, Implementation, characterizes the type of street designs that favor the vulnerable populations – the young, the elderly, and the disabled.

In addition it section 4 presents a number of design that are helpful in solving specific traffic and Streetscaping issues.

WALKABILITY

What is a Walkable City?

Calabasas as a separate entity from the Los Angeles metropolitan area must balance the idea of pedestrian use with its own since of place viewing the existing natural and built environment; distinguishing between its urban and rural land uses. If pedestrian concerns are to influence policy and funding, then the meaning of walkable city must be understood from the vantage point of the resident – the pedestrian. The following points give a pedestrian’s perspective of a community that is in fact walkable:

A place where

- ... people of all ages and abilities have easy access to their community “on foot”, where an automobile is not needed for every trip.
- ... parents feel comfortable about their children being outside in their neighborhoods, needing not worry about the threat of motor vehicles.
- ... children spend more time outside with other children and are more active, physically fit, and healthy.
- ... more people walk and in turn the community and neighborhoods are safer through greater resident presence on the street, healthier by introducing and sustaining a more active lifestyle, and friendlier where residents interact on a more intimate and frequent bases.

- ... streets and highways are designed or retrofitted to provide safe and comfortable facilities for pedestrians, and are safe and easy to cross for people of all ages and abilities.
- ... pedestrians are given priority in neighborhood, work, school and shopping areas motor vehicle speeds are reduced (and in some places motor vehicles have been eliminated entirely) to ensure compatibility with pedestrian traffic.
- ... motor vehicle operating speeds are carefully controlled to ensure compatibility with adjacent land uses and the presence and routine of pedestrians in that space.

From these pedestrian minded statements local government can extrapolate the necessary changes needed to bring about these desired results. The Mid-America Regional Council (MARC) also developed this

checklist for creating a pedestrian friendly community. The checklist (shown, Table 1) introduces the points of consideration that should be examined in developing pedestrian legislation. The charts points maybe achieved by adhering to the following: applying connectivity and continuity analysis in order to provide a complete system of transportation options. Where possible, non-street pedestrian routes should be designed to shorten pedestrian trip lengths, and alternative access routes should be designed for pedestrian

- Shortened Trips and Continuous Separation from Traffic
- Connectivity Linkages to a Variety of Land Uses (Activity Centers).
- Pedestrian-Supportive Land-Use Patterns
- Well-Functioning Facilities
- Designated Space
- Security and Viability
- Automobiles are not the Only Consideration
- Neighborhood Traffic Calming Accessible and Appropriately Located Transit
- Lively Public Places
- Character and Scenic Opportunities
- Pedestrian Furnishings
- Street Trees and Landscaping
- Proper Maintenance

Table 1

access to activity centers. (ex. connections between cul-de-sacs) Activity centers should be purposefully targeted for improved pedestrian usage.

Pedestrian facilities should be designed in coordination with other transportation modes/facilities (ex. Bus shelters and stops). Pedestrians should be continuously separated from vehicle traffic by buffer zones.

The above points are but a starting point -- guidelines for assessing the walkability of communities yet they are important tools to keep in mind when surveying areas for pedestrian improvements. Planning initiatives already begun by the City of Calabasas demonstrate the City's commitment to the enrichment of the community by bettering the pedestrian landscape.

POLICY 2: All new and existing pedestrian facilities should be well designed, well functioning and properly maintained.

Benefits of a Walkable City

The City of Calabasas is committed to walking as a form of transportation and recreation that is safe, accessible, healthy, and affordable for all citizens. Every Calabasas resident is a pedestrian at some point during the day. We all walk with or without mobility aids* whether to a school, transit stop, to a parked car, to work, or for exercise.

The Pedestrian Master Plan should assist the City in achieving the following five goals:

- 1. Pedestrian Safety.** Create a street environment that strives to ensure pedestrian safety.
- 2. Pedestrian Access.** Develop an environment throughout the City prioritizing routes to school and transit – that enables pedestrians to travel safely and freely.

- 3. Streetscaping and Land Use.** Provide pedestrian amenities and promote land uses that enhance public spaces and neighborhood commercial districts.
- 4. Education.** Educate citizens, community groups, business associations, and developers on the safety, health, and civic benefits of walkable communities.
- 5. Implementation.** Integrate pedestrian considerations based on federal guidelines into projects, policies, and the City’s planning process.

In achieving these goals, the Pedestrian Master Plan provides targeted solutions to pedestrian access and safety problems. And these additional benefits are garnered: sustainability, equity, vitality, and health – especially for children and seniors.

Safety

Continuous sidewalks and safe crossings are the basic building blocks for pedestrian safety. These elements are essential for the most vulnerable populations: children, seniors, and persons with disabilities.

High speeds and volumes of motor vehicles can create safety concerns for pedestrians and residents. Neighborhood streets that provide motor vehicle shortcuts for through traffic are of particular concern to residents.

On larger streets, high speeds and volumes of motor vehicle traffic can be at odds with crossing safety, especially on streets with infrequent traffic signals. According to the Federal Highway Administration, “At higher speeds, motorists are less likely to see a pedestrian, and are even less likely to be able to stop in time to avoid hitting one”. In collisions with

motor vehicles, a pedestrian has an 85% chance of fatality at 40mph, a 45% chance of fatality at 30mph, and a 5% chance of fatality at 20mph.

To establish balanced approach to street design regulates motor vehicle speeds in order to afford the pedestrian a safe and convenient crossing opportunities. Drivers and pedestrians share responsibility for pedestrian safety. Ample sidewalks also serve to buffer pedestrians from motor vehicle traffic. And education and enforcement decrease culpable behaviors in both groups thus they are important elements of a comprehensive solution.

Sustainability

Walkable cities reduce environmental impacts by promoting walking as a zero emissions form of transportation. Good walking routes to transit complement the role of public transit in providing an environmentally

sustainable alternative to the private automobile. Although typically not counted in transportation surveys, every trip on transit is sandwiched between two pedestrian trips. Especially in conjunction with cycling and transit riding, walking provides a promising non-polluting transportation alternative.

Equity

37% of Californians do not have driver's licenses. Walking is the most inexpensive and broadly accessible form of transportation and recreation. Walking requires no fare, fuel, or license. For those who cannot afford other modes of transportation, the ability to walk safely is essential. For young people, walking affords a sense of independence that is not possible with other modes. For older people, walking is an effective means of staying active, both physically and socially.

Vitality

Walkable cities make for vital and active streets by promoting commercial and social exchange. With approximately 40% of the land area of United States' cities dedicated to transportation, streets and sidewalks are the city's most expansive public spaces. Sidewalks ideally function as positive places to meet, play, live, work, and shop. However, high speeds and heavy volumes of motor vehicle traffic can create inhospitable blocks where people are less likely to know their neighbors and children are not allowed to play. In residential areas, motor vehicle traffic negatively impacts residential property values. In commercial areas, the most congested streets are often the most economically vital.

Health

Walkable cities promote healthy citizens. Health professionals recommend walking as a form of physical activity to help prevent a host of diseases including obesity, heart disease, and some forms of cancer. In announcing the nomination for U.S. Surgeon General, President George W. Bush said, “Walking 30 minutes a day will dramatically improve your life.” Drawing on the success of the public health model in reducing smoking, cities are recognizing that good places to walk help promote healthy citizens. In the United States, 300,000 deaths per year are associated with obesity and the number of overweight adolescents almost tripled in the last twenty years. While almost two-thirds of children walked or biked to school only thirty years ago, less than 10% do today. According to the Surgeon General, encouraging at least 30 minutes of walking per day and creating walkable environments are recommended methods for reducing overweight and obesity.

POLICY 3: The City of Calabasas should make a public commitment to include walking as a viable form of transportation and recreation. Ensuring that pedestrian travel is a possible, workable, safe, accessible, providing a healthy, and affordable form of transportation to all citizens.

DESCRIPTION OF THE EXISTING PEDESTRIAN LANDSCAPE

Advantages. To properly assess the present pedestrian mobility Calabasas should be viewed as a subset of small communities with a city center, the Commons at Calabasas. Calabasas is inclusive and the need to travel outside of the city for daily activities is minimal. Where Calabasas successfully provides the daily needs for its residents, who can access both necessities and amenities by car within the city, pedestrians can also access these uses, yet only within certain subsets of the city.

Constraints. The city fails to provide pedestrian accessibility within all of its smaller subsets of the community. “There are numerous commercial, retail, employment, community and school centers scattered throughout the City that offer tremendous potential for increased pedestrian connectivity.”

In reference to permitting the development of gated communities, the City exhibits a great deficiency in new and existing developments; there are de minimus means of ingress and egress, and insufficient sidewalks.

Although, motor vehicle traffic in residential areas negatively impacts residential property values hence the reason for the gated community effect, the equities of access by residents and emergency personnel should be weighed.

POLICY 4: Where the city’s residential zones consist largely of gated communities there must be a change of ideology where new builds will not

inhibit non motorized transportation and developers must include secondary access for convenience and emergency access.

Who Are Calabasas' Pedestrians?

The California Vehicle Code § 467(a) and (b), describes a pedestrian as “any person who is afoot or who is using a means of conveyance propelled by human power other than a bicycle . . . including any person who is operating a self-propelled wheelchair, invalid tricycle, or motorized quadracycle and, by reason of physical disability, is otherwise unable to move about as a pedestrian (one using human power or afoot).”

Since Calabasas is a separate entity from the Los Angeles metropolitan its residents who act as pedestrian must distinguish the existing natural and built environment and delineate between the land uses those markedly urban and distinctly rural. In considering the influences, imperfections,

and impediments that impact the pedestrian one must recognize that a Calabasas resident is of the socioeconomic makeup which enables them to reside here. Economic status yields great choice if a current resident are in fact dissatisfied with the city, their continued residency is by choice. Therefore any evaluation of the pedestrian landscape or recommendations for changes thereof must be tempered acknowledging the residents willingness to accept pre-existing conditions especially when the pedestrian landscape lacks appropriate conditions to facilitate a most convenient jaunt.

Calabasas acts with hopes of being viewed by its residents as taking the concerns of its pedestrians serious. Although we aim for complete safety any mixing of cars and pedestrians is an inherently dangerous scenario. In the event the injury or fatality or tragedy the city hopes to embrace the

loss and remember those lost either by renaming a street or some other reminder designated as a memorial.

Frequency and distance of trips traveled: Survey Data.

A survey was administered to the Calabasas population (Addendum A).

The 10 question two page questionnaire helped to establish 5 categories into which the residents were grouped. Although the questionnaire asks and has answered the questions of distance, purpose, and frequency of walks taken, question 4 was the most telling and the most useful in establishing analytical groupings.

Question 4 asking how often do you walk to work/school/shopping/ or appointments and it therefore embodies the purpose of the PMP stratifying residents those who walk verses those that do not --allowing the

remaining questions of the questionnaire to further explain the identity of the residents who assume a specific walking pattern.

Groupings: Influences, Imperfections, and Impediments and their creation of ease or difficulty in a pedestrian's travel.

In a perfect world city's would somehow be able to please all of its constituents; the city of Calabasas would be able to immediately furnish all the resident's requests from the recent survey; granting continuous sidewalks from here to everywhere, each new sidewalk would have a sufficient buffer from the street and from the threat of cars, and each car would be mandated to travel at a low speed. From a feasibility stand point this is impracticable. Therefore it is essential to understand the immediate needs of the residents and address what issues are most pertinent.

The Green Group: This group personifies a willingness to travel in imperfect conditions. Their ages range up to 60 years old, they live in a

multiplicity of places throughout the city, they walk for every reason under the sun from recreation to scheduled appointments and they make up a majority of the respondents. One distinguishing factor about this group is their keen observation that the everywhere they walk is not safe yet they choose to walk with awareness. The landscape's imperfections do not serve as an impediment to their pedestrian activity.

The Blue Group: The mantra of this group could be nicer would be better, but sometimes they walk anyway. This group takes into consideration that the existing pedestrian landscape presents obstacles, yet they walk 1-3 times per week. Despite a respite desire for the presence of adequate sidewalks they are not impeded. The blue group is not blind to the misgivings in the pedestrian landscape their number one request is greater separation from automobiles, yet they present a willingness to bypass the landscape's misgivings realizing that it takes both time and

money to make such change, hence they walk cautiously attempting to avoid incident. Persons belonging to the blue group would enjoy it if they felt more protected or if the landscape was beautified but they continue without those changes being made.

The Blue Triangle: This group is best characterized by the words walk where?, those in this group feel as if there is no objective or destination worth walking to, therefore they walk infrequently traveling by foot only 2-3 times per month on so called destination less trips i.e. walking for exercise or recreation. These trips have purpose but not a destination per se.

The group's main concern is connectivity; they are not willing to walk within the present conditions of the pedestrian landscape in fact they feel restricted therefore they do not demanding better conditions just closer more well connected destinations. This group's greatest objections are abrupt land usages and traffic devices like roundabouts. The concerns of

this group are shared by those who make transitory visits to the city (ex. those employed here who do not reside here also). Abrupt changes in the landscape are troublesome to those who venture out without a destination and to those who lack familiarity with the landscape. Where the pedestrian encounters a change they did not anticipate in the thoroughway there is a tendency for the pedestrian to feel unsafe and unconfident in navigating the landscape.

The Red Circle Group: characterized by the mantra “too many impediments and not enough enticement”. This group’s lack of frequency in travel is partly attributed to a lack of interest in the pedestrian landscape. This group consists of people 40 years of age and above. Their critique and their concerns are two sides of the same coin; this group does not travel because of impediments like rough terrain; and perceive insufficient

enticement to walk hence they lack of motivation to walk because of a general disinterest in the pedestrian landscape.

The Red Circle Group makes suggestions like gating the Bird streets, if granted they presume that there would be no likelihood of pedestrian fatality – this act extinguishing the impediment that created the disinterest in walking.

The Red Star Group: is characterized by the statement “there are impediments that I cannot over come”. The members of this group have an overall idea that pedestrian travel is unsafe, therefore they do not consider pedestrian travel as an option. Within this group there is a dichotomy those below the age of 50 would consider walking up to 30 hours a week if conditions were *ideal* where those above 50 continually assert a blanket disinterest in pedestrian travel no matter nature or condition of the pedestrian landscape. The latter portion of this group

feels that their lack of pedestrian mobility is independent of any responsibility of the local government to better the conditions of the landscape. This group maintains adamancy that their chosen residence lacks connectivity and that they supply their necessities without consideration of pedestrian travel.

Conclusory Points on the Groupings

In analyzing the pedestrian survey the responses were characterized based on the frequency of walks taken and the location of respondent's residence. Though the frequency of travel categorized the groups the conclusion are based on the juxtaposition of the members of different groups who reside in the same locale.

People of the same age with similar family circumstances may have divergent views of the pedestrian landscape; Within the same

neighborhood the residents consist of members of the most liberal group and the most restrictive.

The survey's responses should assist the city in its future funding decisions as they relate to improving the pedestrian landscape. The survey shows that a portion of a person's impetus to walk or not to walk is fashioned from their own perception not the actual condition of the pedestrian landscape. In turn, for some residents no amount of planning or improvements would create an ideal situation that induces these residents to choose pedestrian travel over alternate means.

Finally, it should be noted that actual dangers assessed from empirical data (i.e local police data, or collision data from Statewide Integrated Traffic Records System (SWITRS) or others sources) rather than qualitative data such as the survey results maybe better indicators of the

most significant changes needed to achieve safe streets and thoroughfares.

DANGERS TO PEDESTRIANS:

Enhancing Safety through Community Outreach

The following list explains other issues identified as common community concerns:

CROSSING ISSUES

- Streets with large volumes of motor vehicles are difficult to cross.
- Many busy pedestrian areas don't have frequent enough crossings.
- Streets with many lanes are difficult to cross because of their width.
- Drivers often do not yield for pedestrians at crosswalks.
- Traffic signals do not provide enough crossing time for families,

seniors, and persons with disabilities.

-Local streets are dangerous to cross when used as “cut-through” routes by drivers.

ENFORCEMENT ISSUES

-Speeding cars are a problem on both one-way and multi-lane streets.

-Speeding cars entering and exiting freeways threaten pedestrian safety.

-Speeding buses are a problem.

-Double-parked vehicles block sight lines between pedestrians and drivers.

-Cars parked on sidewalks create hazards by forcing pedestrians into the street.

SCHOOL SAFETY ISSUES

-Residents are concerned about drivers failing to yield to pedestrians in school zones.

- Drivers do not always obey stop signs and crossing guards in school zones.
- Some streets near schools are missing sidewalks.
- Traffic moves too fast near many schools.
- Children do not understand how streets are dangerous.
- Schools do not have enough crossing guards and stop signs to regulate traffic.
- Double parking in school zones needs more stringent enforcement.
- Residents are frustrated by drivers who “do donuts” on local streets and near schools.

STREETSCAPING ISSUES

- The prevalence of trash and petty crime discourages walking.
- Older curb ramps are too steep for persons in wheelchairs and create drainage problems.

- Diagonal curb ramps direct people into the intersection, not the crosswalk.
- Many sidewalks and crosswalks are not adequately lit.
- Neighborhood commercial streets should be safe and inviting for pedestrians.

LOOKING TO THE FUTURE: Improving the Pedestrian Landscape

Where the City of Calabasas' envisions a future that offers residents new opportunities to include walking as a part of their everyday life the transportation system must be enhanced. New choices must be added among the existing modes of travel for specific trips that meet the needs of individuals and the community as a whole. Incorporating the needs of the City's pedestrians as presented in the Pedestrian Master Plan to the City's

existing transportation planning will promote the walkability of the City of Calabasas.

IMPLEMENTATION

The Pedestrian Master Plan serves as a critiquing tool, establishing a distinct picture of Calabasas today, embracing the thoughts of the residents, and an evaluation of Calabasas' adherence to applicable law governing the treatment of the pedestrian and the quality of the pedestrian landscape. Therefore the plan should be use to provide initial guidance concerning potential funding sources for the construction of new pedestrian facilities and improvements to existing structures. As to implementation the necessary processes of a transportation engineer would need to be applied where the plan only provides guidance for compliance, not conclusions of the specific options to be undertaken for repairing the shortcomings in the present landscape.

Route Networks within Calabasas. Path of Common use designate a pedestrian route.¹ Establishing and clarifying these network help to identify community concerns for the places of greatest need, those being traveled that are unsafe, hence earmarking areas where improvement will the greatest impact.

- 1) Routes From Homes to Cars
- 2) Routes From Offices to Food Stuffs and Recreation
- 3) Routes From Public Transportation to Work
 - a. Though those who travel into our city for work tend are not our residents their work supports our communities, enhances our economy and fosters an environment of convenience by filling the jobs that our residents are not eager to take.

4) Routes From Home to School

- a. Needs differ in populations that lack the option of automobile transportation i.e. youth

5) Routes without Destination

- a. Recreation

There are as many design options for pedestrian facilities, as there are types of communities. Different areas within communities are distinctly suited for different pedestrian facilities. The design guidance that follows is outlined in the following manner:

1. Description of Pedestrian Characteristics
2. Pedestrian Needs
3. General Design Guidelines
 - i. Sidewalks and Walkways Zone Widths
 - ii. Crossing Treatments (Wayfinding)

- iii. Sidewalk Materials
- iv. Sidewalk Guidelines
- v. Passive Crossing Treatments
- vi. Active Crossing Treatments/Traffic Signal
- vii. Traffic Claiming

Pedestrian Characteristics:

Pedestrians have important needs that must be addressed in the design of pedestrian facilities. Safe streets and walking areas are a necessity.

Pedestrian facilities must also be convenient, attractive and maintained in a clean and interesting environment. Pedestrian facilities should also provide access to transit and activity centers located throughout the community. Visibility is also an important issue. Pedestrian facilities should be designed so that they are easily visible not only to pedestrians, but to vehicles that may be operating in nearby space.

The goal of pedestrian facility design is not only safety, but also increasing usage. In other words pedestrian facilities should be designed in manner that encourages people to incorporate walking as a part of their daily lives. With these different factors in mind, it is important

Common Pedestrian Characteristics by Age Group

Age 0-4

- Learning to walk
- Requiring constant parental supervision
- Developing peripheral vision, depth perception

Age 5-12

- Increasing independence
- Poor depth perception
- Susceptible to “dart out”/ intersection dash

Age 13-18

- Sense of invulnerability
- Intersection dash

Age 19-40

- Active, fully aware of traffic environment

Age 41-65

- Slowing of reflexes

Age 65+

- Street crossing difficulty
- Poor vision
- Difficulty hearing vehicles approaching from behind
- High fatality rate

Table 2

to consider the specific characteristics of different pedestrian age cohorts.

In assessing the appropriate design of pedestrian facilities, it is important to bear in mind that different pedestrian age groups have different needs.

Pedestrian Needs

Table 2, (above) showcases the pedestrians need, highlighting common characteristics within different pedestrian age groups. For example the primary need of young pedestrians is the need for adult supervision, hence not even a most superior design can fully protect young pedestrians from the dangers of vehicle traffic. Adult supervision and educational programs to increase children's awareness of pedestrian and traffic safety must accompany good design. The City of Calabasas has taken significant steps to ensure the safety of child pedestrians particularly in school zones and school walking routes, with the development of the

School Area Safety Committee. The Pedestrian Master Plan compliments the work of the Committee.

Older pedestrians have significantly different needs. A variety of different research has shown that pedestrians over the age of 60 walk more frequently, yet in many cases have impaired mobility.

Aids to Older Pedestrians

- Reduced roadway crossing distances (bulb outs and curb extensions)
- Signals within 60 feet of viewing distance: easy-to-read signs
- Refuge areas in roadway crossings
- Traffic calming
- Shelters, shade and handrails
- Smooth surfaces and unobstructed travel ways
- Signal timing at lower than average walking speed

Table 3

Decreased mobility at an advanced age increases the elderly population's safety risk. Table 3 provides a list of some pedestrian facilities that aid older pedestrians in their travel. While the features summarized in table are particularly helpful to older pedestrians, they are of benefit to all pedestrian age groups.

Pedestrians with disabilities require carefully designed facilities that eliminate barriers. The needs of pedestrians with disabilities vary considerably depending upon the type of disability and level of impairment. Table 5 lists elements of pedestrian design that are helpful to pedestrians with disabilities.

Note that many of the aids to pedestrians with disabilities are also considered to be aids to older pedestrians. Facilities like lower than average signal timing, handrails, bulb-outs and curb extensions are improvements that can improve the safety of all pedestrian age cohorts.

Aids to Pedestrians with Disabilities

- Curb cuts and ramps
- Tactile warnings
- Easy-to-reach
- Audible warnings and message systems
- Raised and Braille letters for communication
- Signal timing at lower than average walking speed
- Maximum grade of 1:20 and cross slope of 1:50 (ramps can be 1:12)
- Roadway crossing refuges
- Reduced roadway crossing distances (bulb-outs and curb extensions)
- Traffic Calming

Traffic calming is also a significant aid to pedestrian safety. The City of Calabasas has recently embarked upon a significant traffic calming program through the development and adoption of the Traffic Calming Policy. The Pedestrian Master Plan and the Traffic Calming Policy

represent a significant effort on the part of the City of Calabasas to improve pedestrian safety throughout the City.

POLICY 5: Where a segment of the population is characterized as a vulnerable class there should be distinct designs that provide safe pedestrian travel for that class. (i.e. Wayfinding assistance for elderly or blind residents)

Given the wide-ranging characteristics of different pedestrian cohorts, it is important to recognize that these characteristics necessitate a flexible design approach that will meet a diversity of needs. Typical obstacles to pedestrian usage include design assumptions that assume an average population. Examples include walking speeds and distances. Children, older adults and pedestrians with disabilities typically travel at walking speeds of 3.2 kph (2 mph), while many pedestrian signals are often timed for average walking speeds of 4.8 to 6.4 kph (3 to 4 mph). Walking

distances are another issue. Typically people are willing to walk longer distances for recreational purposes, while preferring to walk shorter distances during commutes, such as from transit stops to their places of business. As a general guideline, planners should attempt to locate high traffic activity centers no more than 400 meters (one-quarter mile) from the origin of most pedestrian travel. Maximum distances from parking areas and pedestrian circulation sites to the entrances of buildings are traditionally set at 90 meters (300 feet). Street crossings are considered most effective if they are located from 400 to 800 feet apart in areas heavily trafficked by pedestrians. Distances to transit stops and park-and-ride spaces can reasonably be set at 1000 feet, and at about 1758 feet (1/3 of a mile) to commuter rail stations. In designing pedestrian facilities, it is thus important to understand the characteristics of the pedestrians who are most likely to be using the facilities.

GENERAL DESIGN GUIDELINES:

According to the *National Bicycle and Walking Study* published by the US Department of Transportation, facilities that encourage walking and promote include several factors. Widened paved shoulders, wide sidewalks, paths and walkways clear of obstructions and separated from traffic lanes are essential.

SIDEWALK AND UTILITY ZONE WIDTHS

The Institute for Transportation Engineers recommends planning sidewalks that are a minimum 60" wide with a planting strip of 24" on local streets and in residential and commercial areas.

These dimensions conform to sidewalk requirements found in the Americans with Disabilities Act Accessibility Guidelines (ADAAG) which are minimum widths for passage, not sidewalk width recommendations.

Sidewalks consist of the through passage zone and the utility zone. The through passage zone is the paved part of the sidewalk pedestrians use. This zone should be wide enough to accommodate different walking speeds and shared use by people with mobility street size and pedestrian volumes. All streets require a utility zone to accommodate above ground public infrastructure including street furniture, lampposts, street trees, and signs. Locating this infrastructure in the utility zone prevents it from encroaching on the through passage zone. The utility zone also creates an important buffer between pedestrians and motor vehicles by providing a horizontal separation and a vertical buffer. Vertical elements like utility poles, signs, parking meters, and street trees improve pedestrian safety and comfort by buffering the sidewalk

CROSSING TREATMENTS

Crossing treatments help pedestrians get from one side of the road to the other and provide continuity to sidewalks. Crossing treatments are classified as either passive or active treatments.

Passive treatments are physical improvements like crosswalks or curb ramps that do not change in time. Active treatments like traffic signals and audible pedestrian signals have multiple states that are triggered by automated detection or activated by pedestrians. Both types of treatments may be combined to create a comprehensive crossing system. With all treatments, engineering judgment is necessary to determine the specific locations and features of each project. from travel lanes. This buffering effect is similar to that provided by curbside motor vehicle parking. On local hill streets where sidewalks are not

possible, a wide shoulder or sidewalk striping with parking restrictions is an acceptable alternative.

Walkways and trails do not have utility zones but still require a minimum through passage zone. For accessibility for persons with disabilities, sidewalks should be continuous, stable, firm, and slip-resistant with minimum running slopes and cross slopes.

Wayfinding

Straightforward and predictable routing along sidewalks supports wayfinding by persons with visual impairments. Open areas that do not have detectable landmarks like curbs and building edges may not provide sufficient cues. Where a sidewalk borders a park, parking lot, or building setback, a raised edge should be provided as a shoreline for cane travelers.

Tactile curb markings may also be used to indicate the location of street edges and pedestrian crossings. The sidewalk's through passage zone should not be obstructed or narrowed by street furniture, especially at turns and ramps. Additionally, items installed for pedestrian use on or along sidewalks should be accessible for persons with disabilities.

SIDEWALK MATERIALS

Paving materials should be consistent, durable, accessible to people using mobility aids, and smooth enough for passage but not slippery. Concrete paving is recommended for arterial, collector, and local sidewalks. The concrete should be textured for safety and scored to match existing patterns. In pedestrian activity areas, painted curbs should be textured to ensure traction. To support pedestrians, cyclists, and joggers, trails may be constructed of asphalt, crushed granite, or bark mulch. However,

concrete is the preferred paving material. Special paving may occur at neighborhood commercial areas, schools, and parks to give them a distinctive identity. Acceptable materials include brick or concrete pavers, stained or scored concrete, decorative tile, rubberized sidewalk coatings, stone, slate, and granite if they provide a consistently smooth travel surface and good traction. The careful selection of such materials for contrasting colors or textures can provide valuable wayfinding cues for people with visual impairments.

Walkways

Walkways are usually made of concrete, wood, or stone. The construction of new walkways and the reconstruction of existing walkways should avoid wood to minimize long-term maintenance costs. Where wood is used, the

construction should be of Redwood or Douglas Fir. Continuous handrails of wood on wood stairs and metal on concrete stairs are required on both sides. Stairs should have 7" closed risers, 11" treads with non-slip surfacing, contrasting striping, and sufficient clearance from surrounding landscaping and drop offs.

Lighting

Pedestrian-scale lighting improves accessibility by illuminating sidewalks, crosswalks, curbs, curb ramps, and signs as well as barriers and potential hazards. From the pedestrian's point of view, frequent lampposts of lower height and illumination are preferred over fewer lampposts that are very tall and bright. The Plan recommends the use of pedestrian-scale lighting in areas of high pedestrian activity and where implementation is practical. Lampposts should be staggered on opposite sides of the provide vertical buffers between the sidewalk and street and help define pedestrian areas.

Pedestrian-scale lighting and motor vehicle-scale lighting each should be provided as a complement to the other to ensure that both sidewalks and travel lanes are effectively illuminated. Pedestrian-scale lighting may be installed between existing lampposts to obtain the frequencies given in the table below. They must be located at least ten feet from the full growth canopy of adjacent trees. Poles and fixtures should be chosen from existing to reduce light pollution.

SIDEWALK GUIDELINES

These hoods should also be designed to direct lighting onto the sidewalks. The installation of new lighting should take into account potential overflows that may adversely affect adjacent residents. The proposed lighting guidelines provide guidance in establishing adequate pedestrian scale lighting for a range of rights-of-way.

The implementation of pedestrian-scale lighting should occur as part of pedestrian-oriented street projects as they are completed in the City. The Pedestrian Master Plan does not propose stand-alone lighting projects.

Signage

The Pedestrian Route Network should include signage for pedestrians to aid in wayfinding. The signs will consist of a distinctive logo and directional guidance to neighborhood destinations. They will be attached to lampposts and located at decision points along the route network. Pedestrian signage will comply with the criteria for character proportion, height, and contrast specified by the Manual on Uniform Traffic Control Devices and the Americans with Disabilities Act Accessibility Guidelines. The implementation of these signs should occur as part of pedestrian-oriented street projects as they are completed in the City. The Plan does not propose stand-alone signage projects.

Plantings

Trees are a dramatic street improvement that creates an attractive visual and psychological separation for pedestrians between the sidewalk and the roadway. Trees may also encourage drivers to move through an area more slowly. They can be located in the utility zone to provide sidewalk shading or placed between on-street parking spaces in tree bulb-outs where sidewalks are narrow. (See the explanation of Bulb-outs, below.) For high pedestrian traffic areas, crushed granite in tree wells is preferred over tree gratings.

TREE WELL spacing, tree well sizes, maintenance standards, and potential conflicts with utilities and street lights. The Street Tree Plan is available from the Department of Parks and Recreation.

Street Furniture

Street furniture includes benches, mailboxes, trash and recycling receptacles, bike racks, newspaper boxes, drinking fountains, information

boards, kiosks, parking meters, artwork, public phones, signs, bus shelters, and other items used by pedestrians. These features humanize the scale of a street and encourage pedestrian activity. Street furniture should be placed in the utility zone to maintain through passage zones for pedestrians and to provide a buffer between the sidewalk and the street.

For bus shelters on

crowded sidewalks, bus bulb-outs are recommended for providing additional space. (See the explanation of Bulbouts, below.) Bus shelters should also have clearly displayed bus schedules and city maps for way-finding.

Building Edges

Placement of street furniture along building edges is acceptable if the through passage zone is preserved. Buildings with lower floor windows, canopies for rain protection, tables, umbrellas, signs, planters, benches,

and other street furniture contribute to street life and enhance the pedestrian environment.

Driveways

Driveway entrances can be both dangerous and inconvenient for pedestrians. Driveway curbcuts that extend into the through passage zone may cause people on foot or in wheelchairs to fall. Driveways expose pedestrians on the sidewalk to motor vehicle cross traffic and cars parked in driveways often block sidewalks. Driveways also reduce the available space for street trees, lighting, street furniture, and parallel parking.

As redevelopment or new development allows, minimum driveway widths and frequencies should be promoted as permitted by the planning code.

Wherever possible, entrances should be consolidated such that multiple

users share a common curbcut for motor vehicle access. The ramp portion of a drive entrance should be located

within the utility zone where possible. Driveways should also be spaced at a minimum of 20' to reduce the amount of curbside parking eliminated.

Crossing treatments help pedestrians get from one side of the road to the other and provide continuity to sidewalks. Crossing treatments are classified as either passive or active treatments.

Passive treatments are physical improvements like crosswalks or curb ramps that do not change in time. Active treatments like traffic signals and audible pedestrian signals have multiple states that are triggered by automated detection or activated by pedestrians. Both types of treatments may be combined to create a comprehensive crossing system. With all treatments, engineering judgment is necessary to determine the specific locations and features of each project.

PASSIVE CROSSING TREATMENTS

Crosswalks. Safe and frequent pedestrian crossings are a basic building block of the pedestrian infrastructure. A crosswalk is an area of roadway designated for pedestrian crossings and is a continuation of the sidewalk across an intersection. In addition to marked crosswalks, unmarked crosswalks are legally recognized at most intersections of streets that have sidewalks and meet at right angles. California State law requires drivers to yield to pedestrians in both marked and unmarked crosswalks. Marked crosswalks should be straight for easy navigation and perpendicular to the sidewalks to minimize crosswalk length. However, ensuring the safety of crossings is the most important priority and engineering judgment should be used on a case-by-case basis. In

locations where a marked crosswalk alone does not provide a safe crossing, additional treatments like bulb-outs, refuge islands, and signage may be considered to ensure pedestrian safety and access. Crossing policy based on the most recent Federal Highway Administration guidelines. These guidelines are “FHWA Crosswalk Guidelines.”

Crosswalk Striping

Crosswalks can be marked with paint, reflective tape, signs, and/or lighting. Generally two types of crosswalk striping are used in: standard striping and high-visibility ladder striping. Crosswalks marked in yellow indicate that a crossing is in a school zone. While striping of all four legs of an intersection is recommended, engineering judgment should be used in all cases. High contrast crosswalk striping also helps people with visual impairments to cross streets. Striping should correspond to the width and

location of sidewalks. For improved wayfinding, crosswalk edge stripes can be slightly raised for people using canes.

Crosswalk Paving

Crosswalks may be further marked with distinctive paving materials, colors, or textures. Concrete is preferred over brick for its durability. Concrete may be stained or embossed with patterns to give crossings in a particular area a distinctive feel. Textures should be selected to provide a smooth travel surface and good traction. Pedestrian crossings at railroad tracks should use concrete rather than asphalt to ensure as smooth and constant of travel surface as possible. Asphalt is a poor material for railroad crossings because it tends to curl and crumble at its edges along the rails.

Curb Ramps

According to ADA regulations, all streets with sidewalks and curbs or other barriers must have curb ramps at intersections. The City of Calabasas

should requires curb ramp installation at all street intersections contained within

street resurfacing, sidewalk improvement, utility, new construction, and alteration projects. as a means of progressively improving the pedestrian landscape New curb ramps must comply with the requirements of the State of California Code of Regulations Title 24 and the Americans with Disabilities Act Accessibility Guidelines. Curb ramps should be oriented to direct pedestrians to the opposite corner and to provide a direct connection between the sidewalk through passage zone and the crosswalk. Diagonal corner curb ramps are sometimes an acceptable alternative for retrofits. However, signalized intersections on arterial streets should have one curb ramp per marked crosswalk at each corner.

Texture and Contrast

Sharply contrasting colors help people with visual impairments identify crosswalks and the boundaries between sidewalks and roadways.

Corners and crosswalks should be boldly marked with contrasting colors and textures. Markings can be designed to be both functional and attractive.

Bulb-outs

Bulb-outs reduce the crossing distance for pedestrians, increase visibility for motorists and pedestrians, prevent illegal parking at corners, and provide additional room for people waiting to cross the street. The added space may also be used for street furniture like benches, bike racks, and street trees.

Bulb-outs are also important for accessibility because they provide space for curb ramps, crossing buttons, and a safe waiting area. Bus

bulb-outs provide space for bus shelters and increase the pick up and drop off efficiency of transit. Wherever possible, a bulb-out located at a bus stop should be designed as a bus bulb-out. If a bus bulb-out is not possible, the bulb-out should be designed with special care so as not to interfere with bus movements. Tree

bulb-outs can be used where sidewalks would otherwise be too narrow for plantings. Bulb-outs can be used at mid-block crossings and are beneficial when combined with pedestrian refuges. All bulb-outs should extend into the street no further than the edge of the travel or bike lane. Bulb-outs and accompanying street furniture will require additional maintenance.

Refuge Islands

Refuge islands are located at crosswalks in the middle of streets to provide a safe waiting area for pedestrians. They may include curbs and bollards to ensure the safety of waiting pedestrians. A refuge island may

be part of a median or a stand-alone feature (see Medians below). By allowing pedestrians to cross only half of the street and then wait, the refuge island increases the number of gaps in traffic that are safe for crossing. While increasing the visibility of pedestrian crossings, refuge islands decrease the percentage of pedestrian collisions by reducing pedestrian/vehicle conflicts, motor vehicle speeds, and exposure time for pedestrians. The waiting area in refuge islands should be in line with the crosswalk and as wide as the crosswalk such that persons with disabilities are able to pass through without obstruction.

Corner Radius

A corner's turning radius determines how fast a driver can comfortably make a turn. A tighter turn or shorter radius forces drivers to slow down allowing them to see pedestrians better and stop more quickly. Slow

corners with short turning radii increase safety for pedestrians at intersections by creating more sidewalk space and less road space.

A decreased curb radius also allows for the placement of curb ramps that are aligned parallel to crosswalks. A 10' turning radius is recommended for streets with curbside parking. For streets without curbside parking, a 20' turning radius is recommended. Streets with significant volumes of truck traffic may also have larger corner radii.

Slip Turns

Also known as free right turns, slip turns allow motor vehicles to corner at higher speeds and merge with through vehicle traffic. However, drivers looking over their left shoulders to merge with

vehicle traffic are less likely to see pedestrians entering the intersection from the right. The removal of slip turns decreases pedestrian crossing distances, reduces the speed of turning vehicles, and improves pedestrian visibility.

To address these three issues, slip turns may be converted to conventional corners or made into pedestrian areas with benches, transit stops, lighting, or selective planting. Where slip turns cannot be eliminated, the problem of vehicle speed may be addressed with traffic signals. However, this solution does not address the increased crossing distance and decreased visibility created by slip turns. The problem of visibility may be addressed with an improved slip turn design.

Safety Barrels, Posts, and Bollards

Adding vertical elements at the roadway center line is an inexpensive solution for slowing motor vehicle traffic and improving safety at pedestrian crossings. They can also be used temporarily to test and fine-tune proposed crossing treatments such as refuge islands or bulb-outs. Barrels, posts, and bollards should be highly visible and signed. They should also be positioned to ensure access by people with wheelchairs. Their inclusion in this plan does not indicate approval or endorsement by the Public Works Agency.

Flashers and Overhead Signs

Flashers are signs showing the universal pedestrian symbol hung from a mast arm that extends over the street. The symbol may be marked in standard yellow, fluorescent yellow, or LED displays. They alert drivers to pedestrian activity and mitigate safety concerns. Flashers are even more

visible when combined with overhead signs indicating a pedestrian crossing.

Speed Limit Signs

Speed limit signs should be posted regularly according to Federal guidelines and standards.

Stop Signs

Drivers are more likely to yield to pedestrians when they are already stopped at an intersection. However, stop signs may only be installed where the combined crossing volume of vehicles and pedestrians is comparable to the main street traffic volume.

ACTIVE CROSSING TREATMENTS TRAFFIC SIGNALS

Traffic signals provide protected crossing opportunities for pedestrians and may be used with other solutions categorized as either passive or active. Traffic signals can be especially effective at maintaining vehicle flow while limiting vehicle speeds to provide a safe and comfortable pedestrian environment. However, such speed regulation requires numerous traffic signals on a single street and the careful coordination of traffic signal timings. See also Pedestrian Signals below.

Pedestrian Signals

Pedestrian signals work in conjunction with traffic signals to assign right-of-way at intersections. Pedestrian signals are appropriate at all intersections with traffic signals where crossing is permitted. Using symbols and colors, they should provide a clear distinction

between “walk” and “don’t walk” that is readily identifiable for people with limited vision. The timing of traffic signals may be adjusted in the following ways to benefit pedestrians. These approaches are experimental and should be tailored to particular circumstances by engineering judgment.

_ Set the Walk Phase based on a walking speed of 3.5 ft/sec at intersections commonly used by seniors or persons with disabilities. The City establishes standard crossing times based on a walking speed of 4 ft/sec.

_ Leading Pedestrian Interval Timing improves the visibility of pedestrians by allowing them to enter an intersection before vehicles with conflicting movements.

_ Scramble Pedestrian Signals allow pedestrians to cross in all directions during the walk phase.

_ Countdown Signals let pedestrians know the exact amount of time

remaining in the walk phase. These systems are being installed throughout San Francisco although they have not yet been approved by State or Federal agencies.

_ Audible Signals indicate to persons who are blind or have low vision the direction in which it is safe to cross. They should be installed at intersections with new traffic signals, actuated signal timings, complex traffic patterns, or irregular traffic volumes. Traffic signals should be retrofitted wherever there is a request from persons with visual impairments.

Call Buttons

Pedestrian call buttons and kickplates allow pedestrians to request a signal phase for safe crossing. Audible call buttons should be installed in conjunction with audible pedestrian signals. They should be conveniently located and clearly marked to indicate the crossing directions they trigger.

Tactile symbols may also be installed alongside call buttons to provide crossing information on lane configurations for persons with visual impairments.

Flags

Pedestrian flags increase the visibility of pedestrians who carry them at crosswalks. The bright orange flags are an inexpensive approach to improving safety at high volume intersections.

TRAFFIC CALMING

Traffic calming modifies the physical arrangement of a street to deflect the path of motor vehicles and thereby slow traffic. It provides a cost-effective alternative to traffic signals for reducing motor vehicle speeds and improving pedestrian safety. Two types of deflection are discussed in this section:

_ Vertical deflection slows traffic by making motor vehicles drive over traffic calming devices.

_ Horizontal deflection slows motor vehicles by changing the street width or course of travel.

Bulb-outs

Bulb-outs reduce the crossing distance for pedestrians, increase visibility for motorists and pedestrians, prevent illegal parking at corners, and provide additional room for people waiting to cross the street. The added space may also be used for street furniture like benches, bike racks, and street trees.

Bulb-outs are also important for accessibility because they provide space for curb ramps, crossing buttons, and a safe waiting area. Bus bulb-outs provide space for bus shelters and increase the pick up and drop off efficiency of transit. Wherever possible, a bulb-out located at a

bus stop should be designed as a bus bulb-out. If a bus bulb-out is not possible, the bulb-out should be designed with special care so as not to interfere with bus movements. Tree

bulb-outs can be used where sidewalks would otherwise be too narrow for plantings. Bulb-outs can be used at mid-block crossings and are beneficial when combined with pedestrian refuges. All bulb-outs should extend into the street no further than the edge of the travel or bike lane. Bulb-outs and accompanying street furniture will require additional maintenance.

Vertical Deflection Speed Humps

Speed humps are broad and gently sloping mounds of asphalt added across the width of a street to slow traffic. They are like speed bumps except they tend to be wider such that the slope of the bump is more gradual. Calabasas has installed speed humps on many neighborhood streets as part of its citywide traffic calming effort.

Some to qualify for a speed hump a street should meet the following criteria:

- _ The curb-to-curb width must be 40 feet or less.
- _ It must have no more than two lanes with one in each direction.
- _ The street grade must not exceed 8%.
- _ The speed limit must be 25 mph and the 85% speed must be over 32 mph.
- _ The block should not be on mass Transit route.
- _ The street cannot be a cul-de-sac or dead-end street.

Horizontal Deflection Slow Points

A slow point is an extension of the sidewalk curb in the middle of a block.

Slow points are also known as chokers because they narrow the street to slow down motorists. Slow points and bulb-outs are similar in that both extend the curb line to narrow the street and

thereby slow traffic. However, bulb-outs are located at crosswalks whereas slow points are not. The extra public space created by a slow point may be used for benches, bike racks, or street trees. Slow points and their accompanying street furniture may require additional maintenance compared to unimproved street segments.

Raised Crosswalks

Raised crosswalks provide a continuous street crossing for pedestrians at sidewalk level. They additionally work like speed humps to slow motor vehicle traffic at crosswalks. While eliminating the need for curb ramps, raised crosswalks should be marked or textured so that persons with visual impairments are able to identify the street edge..

Rumble Strips

Rumble strips are textured materials in pavement such as raised plastic bumps that make a rumbling sound when cars pass over. They may be

used to create awareness of upcoming pedestrian traffic or of speed limit transitions like at freeway off-ramps.

Chicanes

Chicanes are alternating curb extensions that slow motor vehicles by requiring them to move in an s-motion along a street. Alternating on-street parking from one side of the street to the other is a cost-effective alternative to achieve the same effect.

Traffic Circles/ Roundabouts

Traffic circles may be raised islands, large planters arranged in a circle, or other elements that cause vehicles to move slowly through an intersection in a counter-clockwise direction. Traffic circles can include landscaping or trees.

Roundabouts are an alternative to signalized intersections. They use a raised circular island to allow large volumes of traffic to pass counterclockwise through an intersection at a safe speed without the use

of stop signs or signals. Compared to traffic signals, roundabouts have lower rates of collisions at intersections because they reduce motor vehicle speeds and the number of potential conflict points.

Narrow Lanes

Ten foot lanes increase street flexibility in areas with limited rights-of-way and may reduce motor vehicle speeds. Compared to the twelve foot standard, ten foot lanes provide additional right-of way for bike lanes or sidewalks. Where 5-foot standard bike lanes are not possible, 14-foot outer lanes should be provided to accommodate both drivers and cyclists. While slowing motor vehicle traffic and improving safety and access for non-motorized users, narrow lanes may increase the number of sideswipe and head-on motor vehicle collisions.

Restriping for Lane Reduction

Restriping streets for fewer lanes slows motor vehicle traffic and increases crossing safety. For streets with four or more lanes, it may be possible to reduce the number of travel lanes without increasing congestion by adding a center turn lane. For example, a four lane street may be restriped to one lane in each direction, a center turn lane, bike lanes, and a wider sidewalk. Proposals for lane reductions require careful study and City Council approval because such reconfigurations may create motor vehicle congestion.

Medians and Access Control

Medians increase safety by separating oncoming motor vehicle traffic and minimizing turning conflicts. They may be constructed with curbs or painted stripes and combined with pedestrian refuge islands. Medians also increase the safety of marked crosswalks at uncontrolled intersections. Medians with landscaping will beautify wide streets by

breaking up large expanses of pavement and making the street feel smaller. Wide medians can be used for trails or transit stops. Through an approach known as “access control,” a street’s efficiency may be increased by limiting the number of locations where left turns are allowed.

The benefits of medians should be weighed against the following disadvantages:

- _ Medians reduce street flexibility by increasing the cost of reconfigurations. Future development, usage patterns, and changing transportation demands may require reconfigurations to accommodate bicycle lanes, bus rapid transit lanes, light rail right-of-way, or new turning movements.

- _ Medians use limited street width that may be allocated instead to pedestrian, bicyclist, or motor vehicle capacity.

_ Medians with plantings may reduce sight lines. Additionally, street trees and plants located along the sidewalk will have a more immediate benefit to pedestrians.

On-Street Parking

On-street parking slows traffic and acts as a buffer between pedestrians and motor vehicles. It increases the number of people on the street and thereby increases public safety. Diagonal parking may be used to narrow streets but it causes serious conflicts with bicyclists.

Street Closure/ Pedestrian Only Streets

Partial street closures on local streets divert through motor vehicle traffic away from neighborhoods while maintaining access for pedestrians, cyclists, and emergency vehicles. Partial closure is accomplished by installing a physical barrier at one end of the

street with accompanying signage. The barriers may include planters. Curbs can be constructed to create closed streets or diagonal diversion at intersections. In addition to the street in question, surrounding streets may be significantly affected by a street closure. Decisions should be based on engineering judgment, community input, and council approval. According to a recent study conducted in Oakland, children who live on streets connected directly to arterial streets are twice as likely to be hit by an automobile in their neighborhood as children who live on streets that do not directly connect to arterials. Street closure may be an effective safety solution by keeping unnecessary motor vehicle traffic out of residential neighborhoods. Blocking off both ends of a street creates a pedestrian mall and public open space. The key to good pedestrian-only streets is to make sure they

connect important places and are pleasant and active in themselves. Civic areas, high-density residential buildings, and public transit are all catalysts for pedestrian street activity. Streets also may be temporarily closed to motor vehicle traffic. Local residential streets can be designed to become play streets with priority given to bicyclists and pedestrians.

CONCLUSION

Calabasas is a unique city in Southern California where driving often seems like our only transportation option, the City of Calabasas aims to create walkable communities. The Pedestrian Master Plan endeavors make walking both feasible and pleasurable --to achieve healthy communities because the residents are walking. In critiquing the City of

Calabasas' existing pedestrian landscape, recommendations were made to serve as a guide for creating pedestrian friendly communities. Achieving these goals is dependent on future grant proposals, public works endeavors, and policy decisions that impact pedestrians therefore it is hoped that the PMP creates expectations for agency action as to its impact on the community.

As to the community outreach the majority of those surveyed have a realistic and healthy understanding that Calabasas is a not metropolitan Los Angeles. These Calabasas residents appreciate their sense of place having both urban and rural elements therefore not insisting that either aspect be more like the other. In all cases the City of Calabasas can and does make improvements. Ultimately the city to strive to achieve more of the goals stated in this plan as well as continue to act in accordance with federal mandates, by demanding connectivity and accessibility in all new

developments, Most importantly, to preserve the sense of place that is uniquely Calabasas policy decisions and legislative acts must embracing both urban and rural elements of the City.

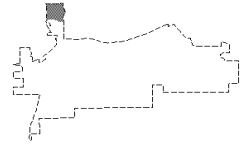
Recommendations

In each of the following map snap shots the highlighted portion of the map signifies place where pedestrian improvements are needed.

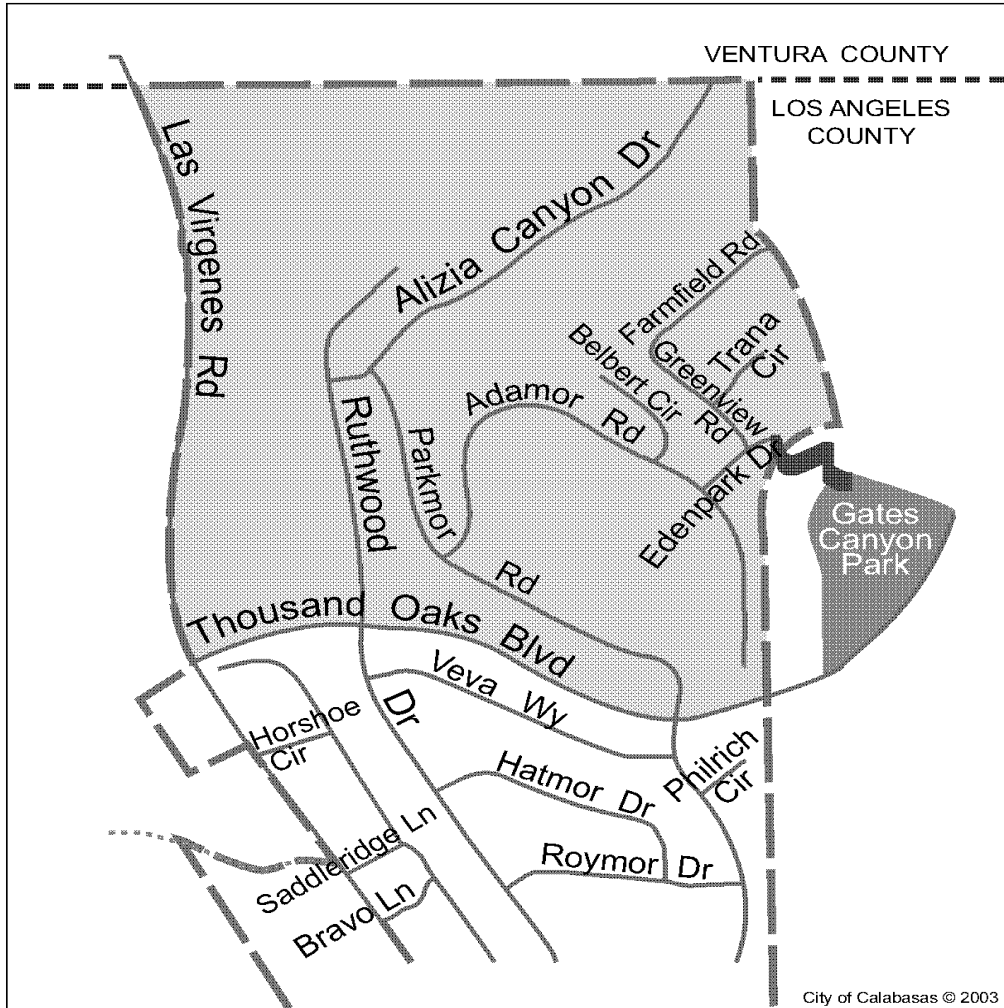
Calabasas Pedestrian Master Plan



CITY of CALABASAS



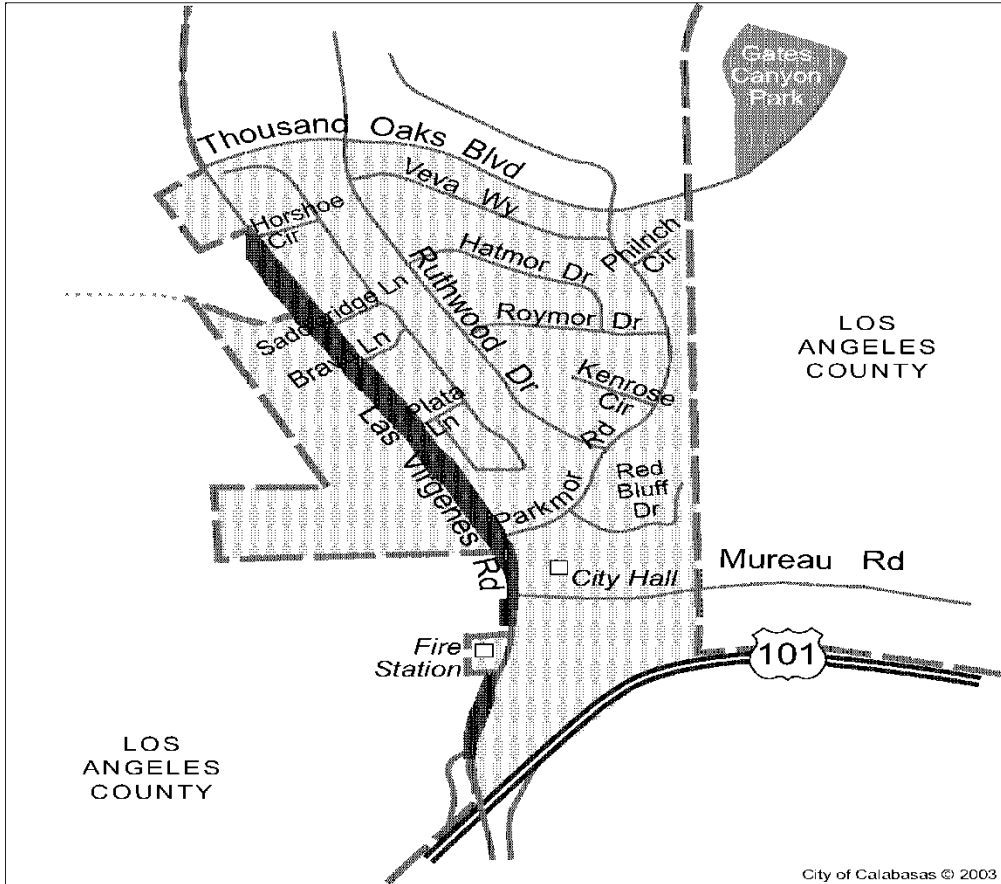
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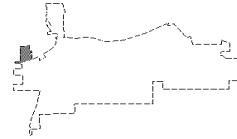


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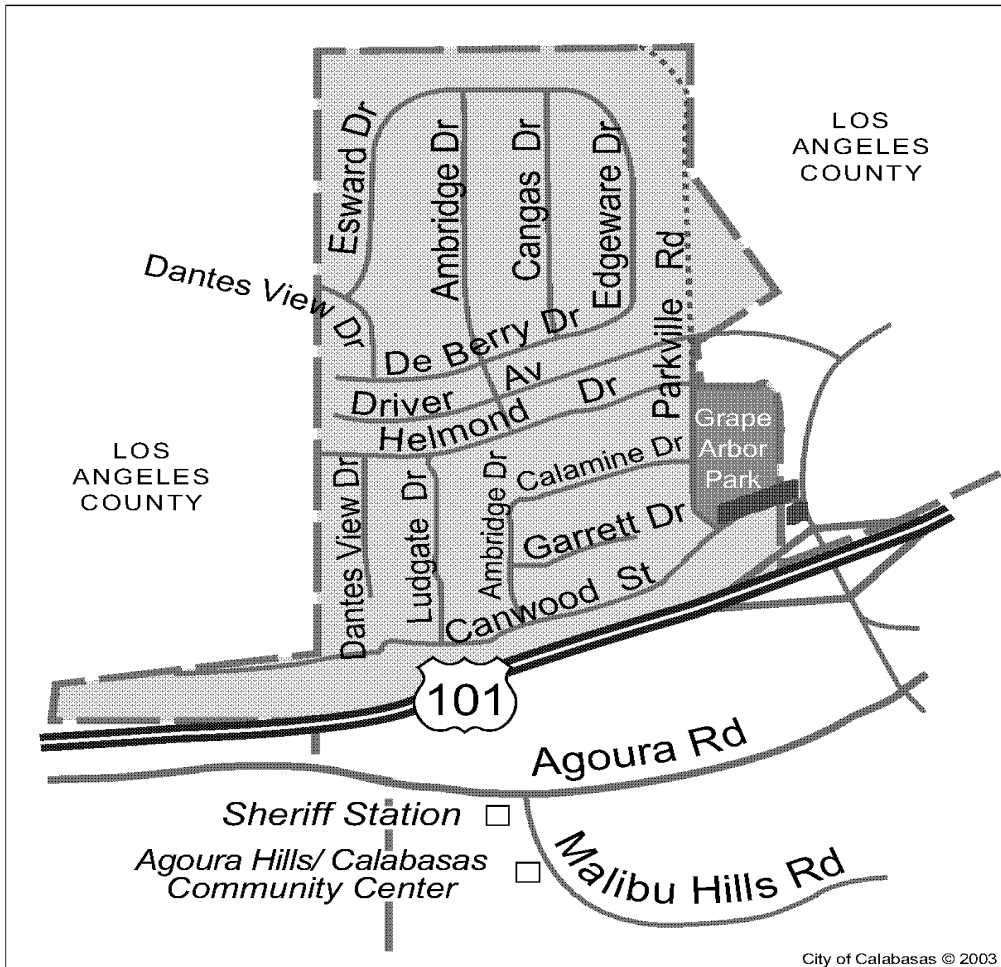
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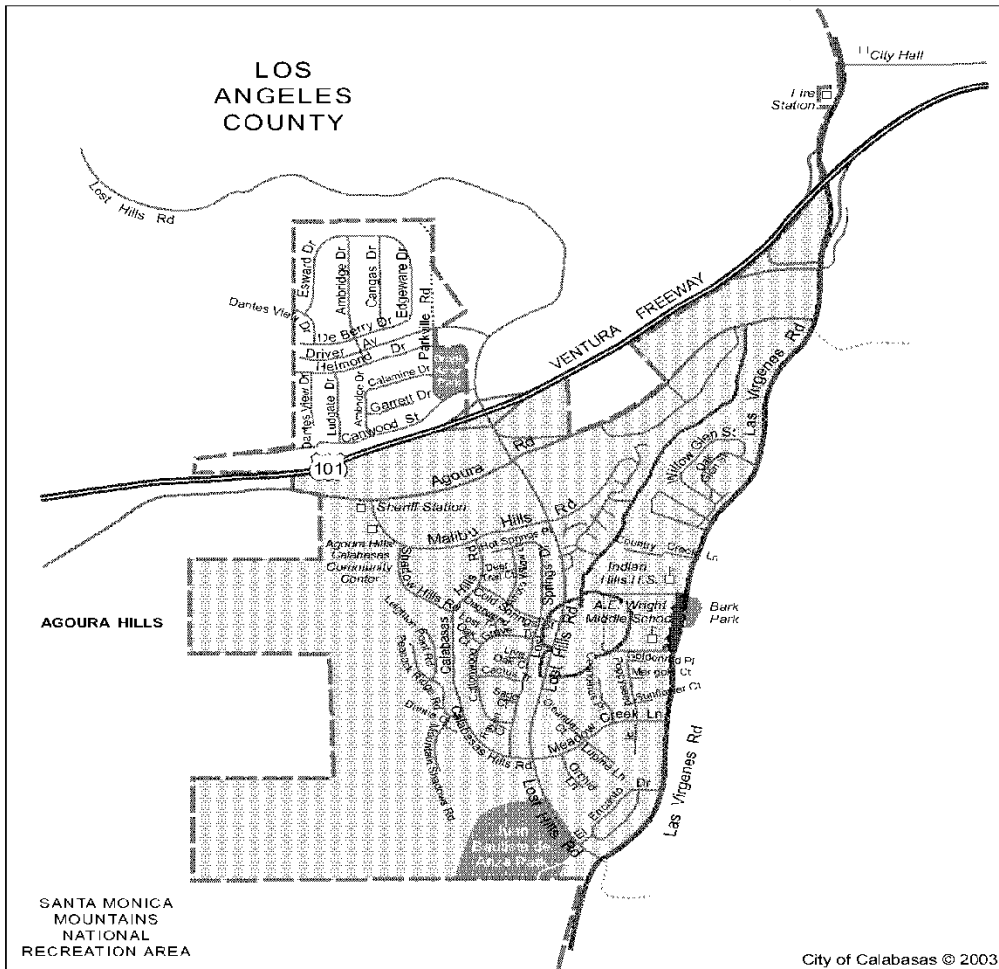
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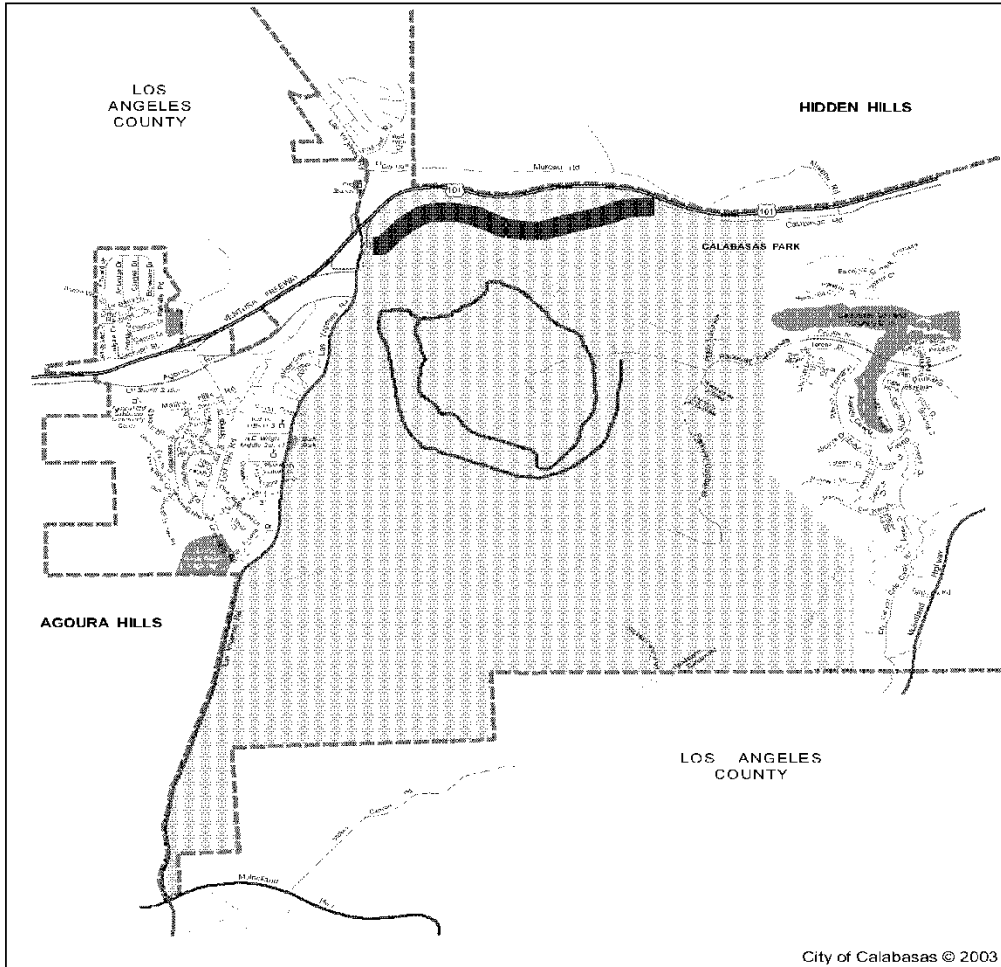


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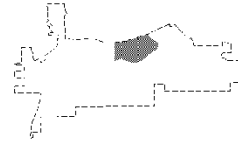


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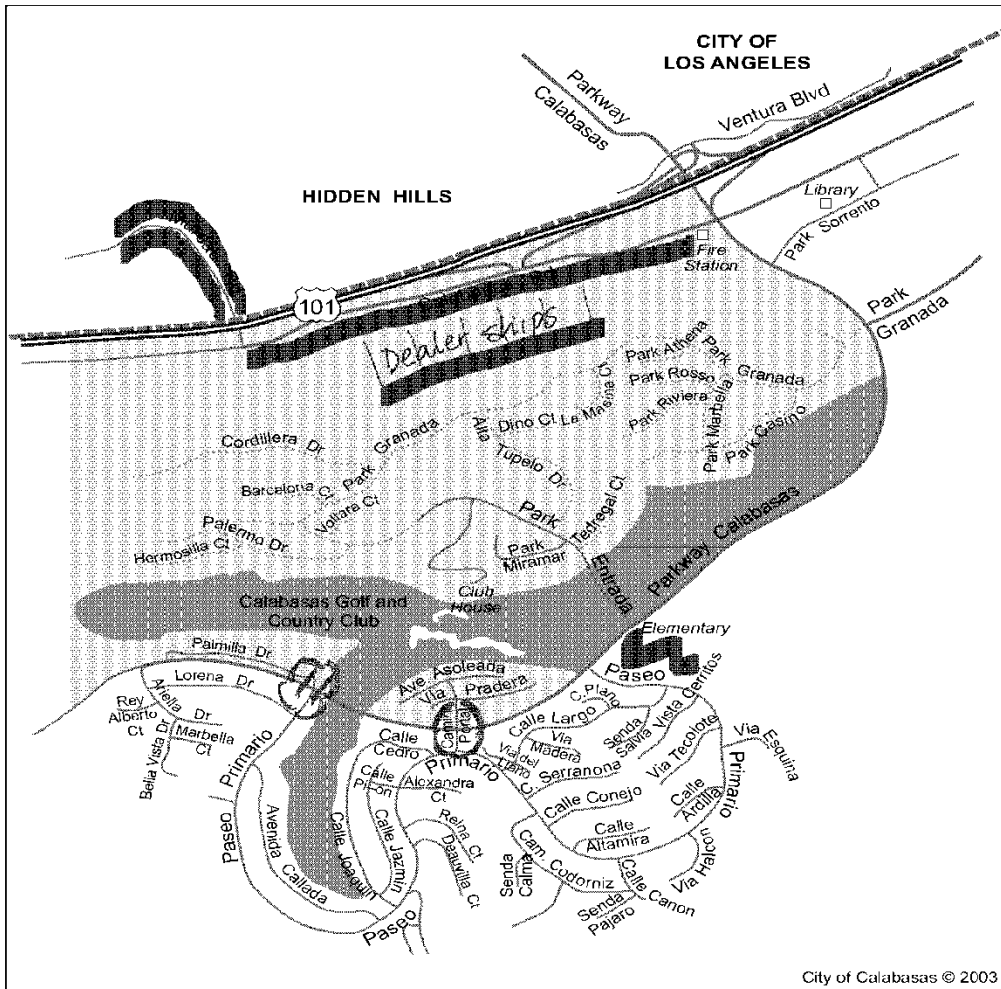


Calabasas Pedestrian Master Plan



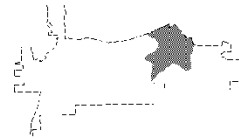
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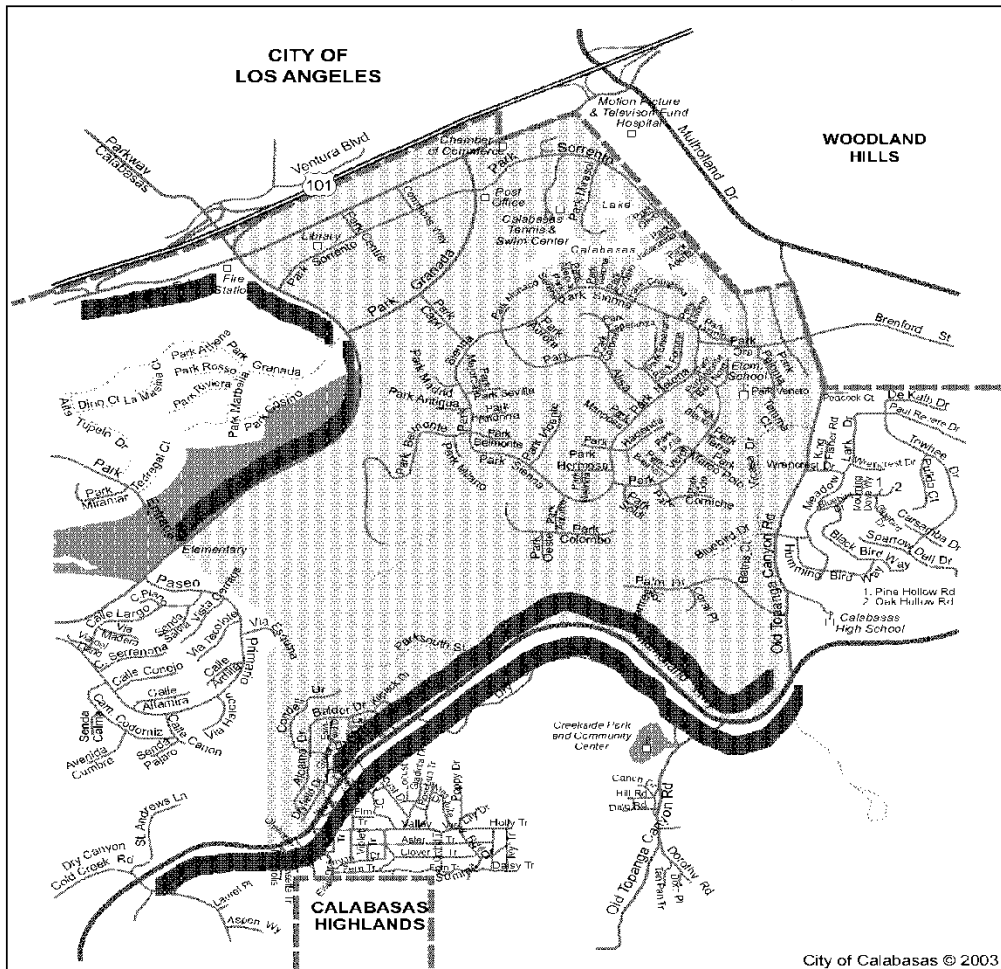
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Calabasas Pedestrian Master Plan



REGION 9

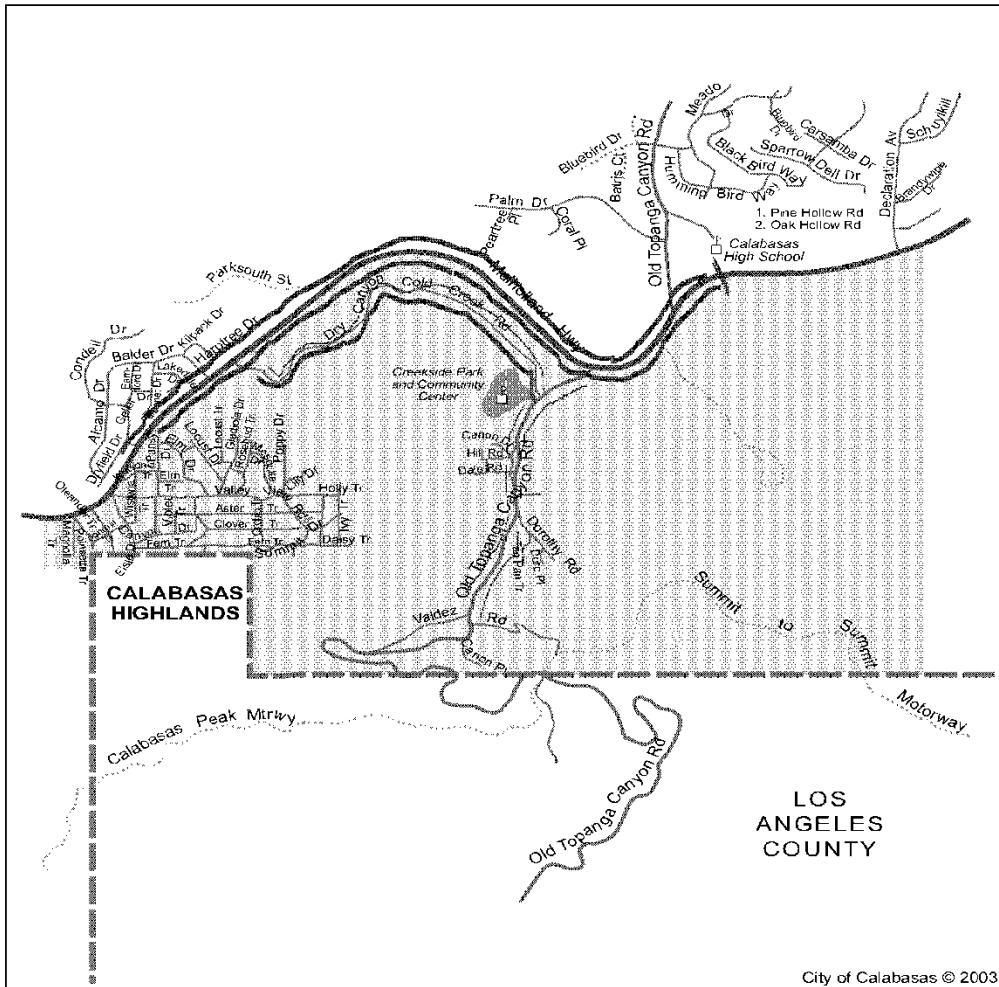
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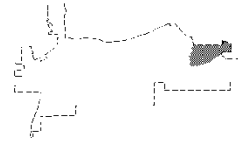
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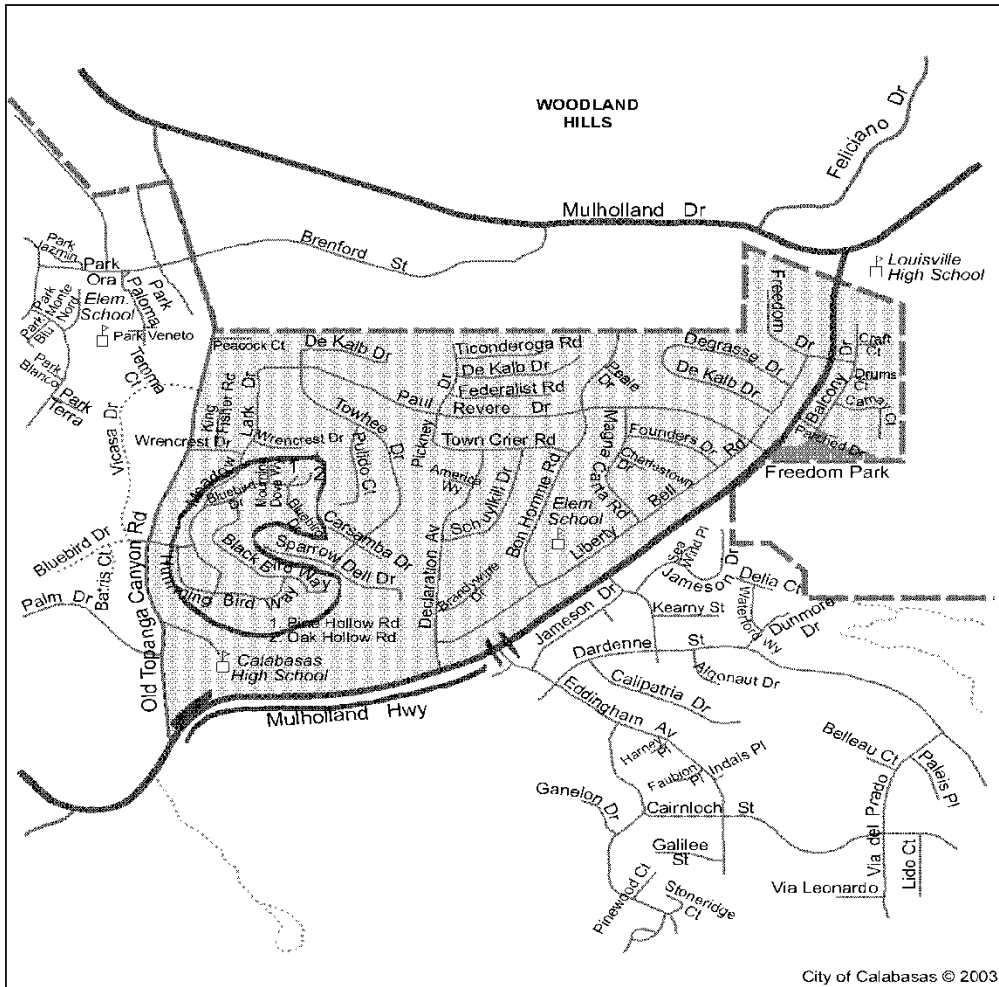
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Calabasas Pedestrian Master Plan



REGION 11

CITY OF CALABASAS



Addendum A - Pedestrian Survey



Pedestrian Questionnaire

The City of Calabasas is developing a Pedestrian Master Plan to improve walking conditions and to increase the number of people who walk as a mode of transportation. This questionnaire encourages the community to share their innovative and creative ideas for a better walking environment in their neighborhoods.

1. What is the closest street intersection to where you live?
_____ and _____.
2. What is your age? 18 or under 19-29 30-39 40-49 50-59
 60-69 70-79 80 or over
3. Describe the places you walk to or things you do when you are out walking. (**Check all that apply**)
4. How often do you walk to work/school/shopping/or appointments?

Daily 1-3 Times Per Week 2-3 Times Per Month Rarely Other

5. Describe the things that would encourage you to walk more often. (**Check all that apply**)

Good Lighting ____ Buffer from Cars ____ Easier to See Cars
____ More Signs ____ Trimmed Trees or Bushes ____ Highly
Visible Crosswalks ____ Educational Programs ____ More Time
to Cross the Street ____ Few Obstacles on Sidewalk ____
Smooth Crosswalks or Sidewalks ____ Other (explain)

6. Describe the things you would like to see and experience while walking. (**Check all that apply**)

Pedestrian Scale Signage ____ Trash Cans ____ Attractive
Architecture ____ Storefront Windows ____ Open Areas ____
Public Art ____ Landscaping ____ Colored or Treated Pavement
____ Other (Please explain) _____

7. What is the longest you would walk if conditions were ideal? (**Check only one**)

5 minutes ____ 10 minutes ____ 20 minutes ____ 30 minutes ____
45 minutes ____ 1 hour+ ____

8. Please identify five of the top reasons you don't walk more often, and then rank them 1 to 5 (1 = top reason)

No sidewalk ___ Sidewalk is discontinuous ___ Poor surface ___
Sidewalk is too narrow ___ Lack of crossings or signals ___ Sidewalk
has obstructions (poles, signs, shrubbery, etc.)
___ High traffic speeds or volumes ___ No curb ramps ___
Inadequate separation from traffic ___ Autos do not yield to pedestrians
___ Inadequate Lighting ___ Family Constraints ___ Destination too
far ___ Carrying heavy objects ___ Personal Safety ___

9. Please tell us any specific locations you avoid because it is difficult to walk there.

10. Please list the ideas you have to encourage more kids and adults to walk more often, for transportation to shops, errands, commercial areas and local schools.

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