3

MOBILITY ELEMENT

This page intentionally left blank.

MOBILITY ELEMENT

3.1 Introduction

San Marcos is committed to enhancing mobility and access for its residents, businesses, and visitors. The foundation of San Marcos's mobility framework is the planned transition to a multi-modal (e.g. ability to serve all modes of travel) transportation network—this includes sidewalks and crosswalks, bikeways, roadways, pathways, and public transit routes. This Mobility Element strives to balance mobility strategies for the City of San Marcos and the statutory requirements to achieve the nine key Guiding Themes for the City.

Purpose of the Mobility Element

Strategically enhancing and managing the mobility network is critical to continuing the City's vibrant commercial and industrial areas, its thriving residential neighborhoods, its diverse job and employment uses, and its unique student population. This philosophy supports the development and maintenance of a network of mobility options that support connecting people to places within the City. Implementation of this philosophy will assist in maximizing the quality, comfort, safety, walkability, livability, and bikeability of the City's streets, sidewalks, trails, and components of the multi-modal transportation system.

The City also understands the importance of providing a balanced and sustainable system. Sustainable transportation systems are those that are environmentally sensitive, are sensitive to the health and well being of the community, and are economically viable to build and maintain. This Mobility Element reflects this sustainable focus of the City by incorporating key ingredients of sustainability.

Scope and Content of the Mobility Element

Government Code Section 65302(b) requires a "circulation" element be provided in all general plans as described in the following statute:

> "A circulation element will consist of the general location and extent of existing and proposed major thorough- fares, transportation routes, terminals and facilities, all correlated with the land use element of the plan."

Although this Mobility Element addresses the multi-modal system for the entire City of San Marcos, special emphasis is placed on connectivity to the Focus Areas (defined in the Land Use and Community Design Element). Connectivity to these Focus Areas is provided via multiple modes, primarily along the following corridors:

- San Marcos Boulevard
- Rancho Santa Fe Road
- Mission Road
- Twin Oaks Valley Road

Highlights within this Mobility Element are described in Table3-1.

Mobility includes circulation facilities for vehicles, transit, pedestrian, bicycles, and non- motorized vehicles.

Photo credit: City of San Marcos

3.2 Background and Structure

Transportation Sustainability

Transportation planning used to focus on identifying land uses and identifying the number of roadway lanes needed to service the traffic generated from such uses.Transportation planning has shifted toward a new focus – one of promoting sustainability and balance for all users of the transportation system.

Table 3-1
Mobility Element Highlights and Facts

The City has tremendous connectivity to the region, being situated between the I-5 and I-15 freeways, with direct access to State Route 78.
Implementing complete streets (e.g. a system of facilities that provide accessibility for all users of the transportation system), especially in the Urban Core Focus Areas, is paramount to creating vibrant and active centers within the City.
The City's access to the SPRINTER light rail system provides a robust alternative mode for North County residents and employees.
The City has a first-rate trails system, boasting some 60 miles of existing network, and has planned expansion for 72 miles of trails.
The City is unique in that it is the educational hub of North County, home to California State University San Marcos, Palomar Community College, and a range of other educational institutions. This creates unique transportation opportunities in connecting those activity centers with the rest of the City.
The City actively manages and oversees traffic on area roadways leveraging technology through its traffic management center.
Mobility Improvements identified in the SANDAG 2050 RTP/SCS are identified in and supported by this Mobility Element.

Pedestrian trails and facilities are important to the mobility, health, and recreation of San Marcos.

Photo credit: City of San Marcos

As such, the following concepts are becoming integrated within mobility planning and are integrated into this Mobility Element. These concepts include:

- The D's of Smart Growth – Integrating smart growth with the transportation system
- Complete Streets – Providing a complete streets network that prioritizes and provides mobility for all users of the system
- Multi-Modal Service – Focuses on the transportation system as a whole and all modes of travel
- Transit Service andTransit Facilities – Focuses on supporting these services to increase the effectiveness of these systems
- Bikeways – Providing a comprehensive system of bikeways to support mobility throughout the City
- Pedestrian andTrails Facilities – Enhancing the robust trails system throughout the City and identifying key corridors where pedestrian travel will be prioritized within the City
- Goods Movement – Identifying preferred facilities where goods can be moved throughout the City. This is important for the industrial and commercial vitality of the City
- Aviation Facilities – Identifying and protecting local aviation facilities
- Traffic Management Technology – Implementing technology to manage traffic flow more efficiently throughout the City
- Parking – Managing parking to ensure that it is implemented and utilized in an efficient manner
- Traffic Calming – Implementing appropriate traffic calming measures to manage traffic speeds, reduce pedestrian crossing distances, and improve safety within the City
- Transportation Demand Management (TDM) – Implementing programs and measures to manage the amount of vehicles generated by a specific land use and to promote alternative modes of travel
- Trip Length Reduction – Establishing an efficient transportation system and implementing strategies to reduce overall lengths of travel needed .

The D's of Smart Growth

Much of the City is currently developed. However, as development, redevelopment, and revitalization occur along select corridors, implementation of the following strategies of smart growth (also known as the Eight D's) will provide the building blocks for improving mobility for all modes of travel:

- Density – The more compact the development is, the easier it is to promote travel via a variety of other modes.
- Diversity – Diversifying land use (e.g. making sure that households have easy and convenient access to retail uses, schools, and jobs) allows people to reduce the length of their trip; thus reducing vehicle emissions and promoting walking, biking, and transit use.
- Design – Pleasant and safe biking/walking environments, short block lengths, landscaping that and other design components promote alternative modes of travel.
- Destinations (or regional accessibility) – Being located near a regional activity center promotes shorter trips and make alternative modes of travel more attractive.
- Distance – Coordinating appropriate land uses in close proximity to transit promotes transit use.
- Demographics – Providing supportive land use and affordability for a wide range of lifestyles and income ranges afford the ability for people to live in close proximity to where they work and play.
- Development Scale – Larger areas that are well planned and are connected together reduce trip making behavior compared to smaller (isolated) developments.
- Demand Management – Encourages people to manage the demand on the roadway system by promoting alternatives modes of travel.

The mixed-use orientation of the Urban Core Focus Areas is key to integrating the proposed land uses with the mobility system. The mixed-use configurations provided for in the General Plan enable many (if not all) of the Eight D components to minimize reliance on the single occupant vehicle and promote use of alternative modes.

Mobility and smart growth go hand-in-hand. Photo Credit: City of San Marcos

Complete Streets

One key theme of the General Plan is connecting people to places. One way to accomplish this is to implement "complete streets". Complete streets balance the needs of all users—including pedestrians, bicyclists, motorists, transit riders, seniors, children, and those with disabilities— in the planning, design, and construction of all transportation projects.

Table 3-2 provides a complete streets guide for the City of San Marcos. The specifics for the sample street typologies are described below. The key to this table is identifying the prioritized, non-prioritized, and prohibited modes by City street.

Table 3-2
Complete Street Guide, Mode Preferences*

Sample Street	Prioritized Modes	Non-Prioritized Modes	Prohibited Modes	Sample Street Typology
San Marcos Boulevard, Discovery to Grand				Multi-Way Boule- vard with Class IV bike and enhanced pedestrian facilities
Rancho Santa Fe Road, Portions of Twin Oaks Valley Road				Arterial with Class II or Class I/ Class IV bike facility and enhanced sidewalks
Mission Road, Portions of Twin Oaks Valley Road				Arterial with Class I/Class IV and enhanced Ped Facilities
Freeway State Route 78 (SR-78)				Highway
Collectors				Collector
Bicycle/Pedestrian Trails				Class I Bike/Ped Path; Class IV Bike Facility
Neighborhood Streets				Neighborhood Streets
Industrial Streets				Industrial Streets with sidewalks; some with Class IV bike facilities
Main Street (Univer- sity District)				Main Street Concept

Priorities:  Pedestrian  Bicycle/Non-motorized  Vehicles  Transit/Bus service

*Street typologies are subject to the City Design standards and may be modified as needed to accommodate coordinating master plans. .

Street Typologies

When transportation planners used to accommodate only the single-occupant vehicle, Roadway Classifications (i.e. prime arterials, secondary arterials, collectors, etc.) were a key terminology used in describing and planning for roadways. In fact, there was a hierarchy of roadway classifications, with prime arterials as being those that carried the highest volume and fastest moving traffic, while collectors were facilities that provided vehicle access to adjacent properties. Since the San Marcos Mobility Element focuses on connecting people to places, utilization of Roadway Classifications deprioritizes the other modes of travel, like transit, bicycle, and transit, which are critical to the City. Therefore, this Mobility Element focuses on Street Typologies as it better addresses all modes of transportation: pedestrian, transit, bicycles, and vehicles. Roadway classifications are identified in Figure 3-1.

Street Typologies relate to how Complete Streets interact with all users of the system (bicycles, pedestrians, transit, etc.) by ensuring that the roadway is designed and implemented in a way that is supportive of the preferred modes through the corridor. Street Typologies also include assessment of the adjacent land uses, and strive to provide a mobility system that is complementary to the adjacent development. Additionally, street typologies can be developed to address other key components of the system, such as landscaping to improve water quality, and providing shade or other enhancements for pedestrians and bicycles.

Multi-Way Boulevard

These facilities provide through travel lanes near the center of the roadway (next to the median or without a median) to serve through traffic; but local traffic is served via a local circulator roadway that is buffered (by a landscape barrier) from the

Image of Franklin Boulevard in Eugene as it might look in the future as a multiway boulevard.

Photo credit: Oregon Department of Transportation, Transportation and Growth Management Program

through trips. The local circulator has a lower rate of speed, such that it is compatible with parking, driveway accessibility, and/or bicycle/pedestrian activity in the area. Wide sidewalks are provided adjacent to the travel way.

San Marcos Boulevard is designated as a future multi-way boulevard, between Discovery Street and Bent Avenue. As, envisioned, San Marcos Boulevard will consist of a center median separated by two through lanes in each direction. Another median will separate the outermost through lane from a one-lane frontage lane. Class IV, Class II, and/or Class III bicycle lanes will be incorporated.

Finally, diagonal and/or parallel parking will be provided along frontage lanes. This facility will improve vehicle, pedestrian, and bicycle accessibility to the Urban Core Focus Areas and San Marcos Creek District along San Marcos Boulevard by removing that local circulation and connectivity from the through travel lanes. This will also de-emphasize the street as a through route. Rancho Santa Fe Road is designated as an arterial (six lanes) with bicycle facilities and will prioritize vehicles in order to serve through traffic that would otherwise be on San Marcos Boulevard. Multi-way boulevards should be congested, as they are typically in high activity areas (for pedestrians and bicycles). Although San Marcos Boulevard will be congested during peak periods, the multi-way boulevard will provide good circulation to all users of the system.

Arterial

These facilities provide for all modes of travel, but they acknowledge that the arterial is a primary link in the City's vehicular transportation system. Key facilities include Rancho Santa Fe Road, Las Posas Road, and Twin Oaks Valley Road (near the freeway).

San Marcos Boulevard in 2011. Photo credit all: City of San Marcos

Arterial with Enhanced Bike/Pedestrian Facilities

These facilities are key links for all modes of travel within the City. Since all modes are prioritized, there is generally a higher rate of speed for vehicles and pedestrians/bicycles are accommodated in a separate enhanced right-of-way. Enhanced facilities can include Class I facilities or Class IV facilities providing a separated and comfortable space for bikes/pedestrians to travel within a higher speed corridor. .

Mission Road, Arterial. Photo credit all: City of San Marcos

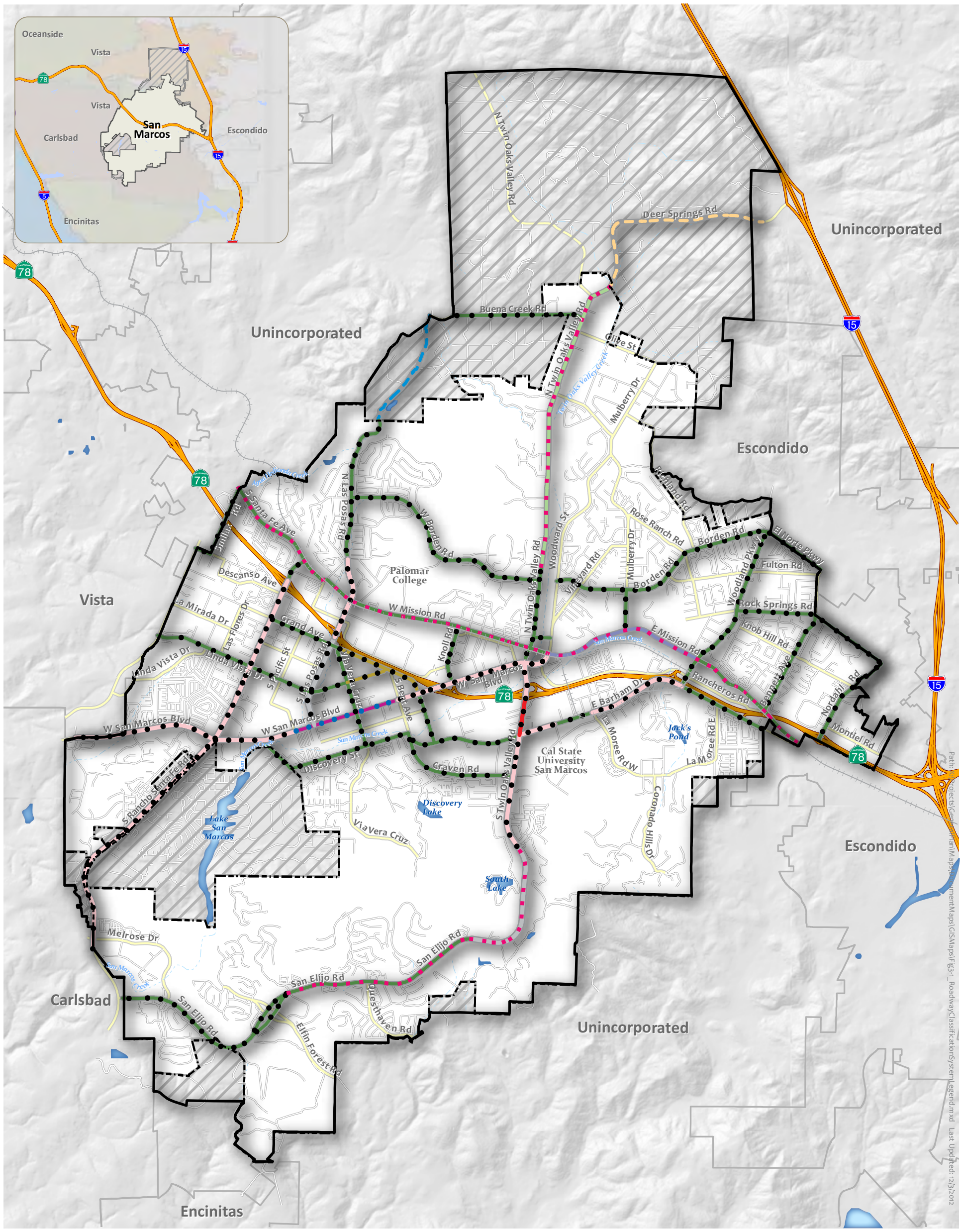
Freeway

The freeway in San Marcos will serve regional vehicular travel to and from the City. State Route 78 (SR-78) is the primary east-west freeway providing regional connectivity for vehicles in the area. Freeways fundamentally serve vehicles, but they also provide for regional bus transit connectivity to the region. Bicycles and pedestrians are prohibited on the freeway.

SR-78, Freeway. Photo credit all: City of San Marcos

Collectors

Collectors are meant to serve as intermediate facilities, connecting local areas to regional mobility corridors. Collectors will prioritize bicycles and pedestrians through facility design and speed management. Bus and shuttle transit services can be provided on collectors, and vehicles will use them for accessibility (but these modes are not prioritized in the corridor).



3 MOBILITY ELEMENT

FIGURE 3-1

City of San Marcos

Roadway Classifications

0 0.25 0.5 1 Miles

San Marcos City Limits
Sphere of Influence
Planning Area
Major Hydrologic Features
Creeks
Railroad
Freeway
Highway
Major Road
Minor Road

Roadway Classifications
- 2 Lanes with Right-of-Way consistent with County of San Diego's General Plan
- 4 Lanes with Right-of-Way consistent with County of San Diego's General Plan
- Arterial Enhanced
- Complete Street
- 4 Lanes (Rural)
- 4 Lanes
- 4 Lanes +
- Multi-Way Boulevard
- 6 Lanes
- 6 Lanes +

Street Typology*
- Arterial with Class II or III Bicycle Facilities and Sidewalks
- Arterial with Enhanced Bicycle/Pedestrian Facilities
- Multi-Way

* See the Street Design Manual for additional street typology assignments

SOURCES OF DATA:
City of San Marcos 12/12

This page intentionally left blank.

Collector street example. Photo credit all: City of San Marcos

Bicycle/Pedestrian Facilities

These facilities are meant for connecting people to places via bicycling or walking and are dedicated to these modes of travel. Other modes such as vehicles and transit are prohibited.

Photo credit: AECOM; City of San Marcos

Neighborhood Streets

These facilities are provided to connect people to their house- holds. Since this is an area that connects communities, they are a public space and are meant to serve bicycles, pedestrians, and vehicles. Transit is typically not provided on these facilities. These roadways should include traffic calming techniques (measures to control vehicular speed) and focus on person scale through design and connectivity. The livability of this street is paramount to the success of the neighborhood.

Neighborhood street example. Photo credit all: City of San Marcos

Industrial Collectors

These facilities are primarily provided to serve thriving industrial development within the City. They provide for all modes of travel, but their primary purpose (and design) is to connect industrial uses to the regional transportation system. These collectors are designed such that heavy vehicles can access the area.

Industrial collector example. Photo credit all: City of San Marcos

Main Street

Main Street facilities provide access to key activity centers within the City. They focus on linking people to the place they are visiting; thus, they should be complete streets that prioritize the human scale (walkability and bikeability). They should emphasize the pedestrian, but provide access for transit users. Vehicles in this area should travel at slow speeds and should only be using these facilities to access local land uses.

Photo credit all: City of San Marcos University District Specific Plan

Mobility Performance

Traditionally, mobility performance was assessed by measuring roadway capacity and auto delay. With the passage of SB 743, the environmental review metric under CEQA has shifted to vehicle miles traveled (VMT) in order to achieve a more direct correlation with the greenhouse gas production resulting from vehicle trips. The City uses VMT as the quantitative metric for analysis under CEQA.

While roadway capacity and delay no longer apply from a CEQA perspective, these metrics are still relevant for assessing the qualitative performance of a roadway. The City considers both categories of metrics in order to assess the quality of travel as well as its environmental impacts.

Additionally, the City requires proactive design approaches and strategies geared towards improving quality of life issues related to mobility performance. These strategies include:

- Improving driver attention
- Improving compliance with roadway regulations
- Protecting vulnerable road users
- Implementing traffic calming measures

The City's comprehensive approach balances the environmental impacts of vehicular trips, the quality of vehicular travel on the City's street network, and the continual improvement of roadway safety characteristics.

Transit Services and Facilities

Public transportation in San Marcos is envisioned to consist of the following services and facilities:

- Public Bus
- Passenger Rail (light rail)
- Intra-City Shuttle Service

Public Bus Service

Bus service in San Marcos is operated by North County Transit District (NCTD), which enables commuters to travel within the City and adjacent cities with minimal transfers. The bus service is more commonly referred to as "The Breeze." Currently, NCTD operates The Breeze on several routes in the San Marcos area. Figure 3-2 identifies NCTD bus and LRT transit routes within the City.

Passenger Rail Service

One of the major rail servicers provides direct connectivity to San Marcos. This line is referred to as The SPRINTER, and is considered a light-rail passenger service. The SPRINTER has stops at the Palomar Community College SPRINTER Station, Civic Center SPRINTER Station, California State University San Marcos SPRINTER Station, and Nordahl Road SPRINTER Station within the vicinity of San Marcos. The SPRINTER provides services to the Oceanside Transit Center, the City of Vista, and the Escondido Transit Center.

Intra-City Shuttle System

There is a tremendous opportunity to connect some of the key activity centers, including the San Marcos Creek District and the University District, with the City through an intra-city shuttle system. The shuttle system could connect Palomar Community College, the San Marcos Creek District, the University District, California State University San Marcos, and the Civic Center Transit Station. Connecting these core activity centers of the City will provide additional mobility options throughout the community to educational, shopping, and recreational destinations.

These transit services are critical to providing mobility within the City. They link to key destinations in the region and provide an alternative to driving in the vehicle. The City envisions working with key providers to enhance the existing systems (where possible) and to provide new opportunities for service via the Intra-City Shuttle System. Figure 3-3 identifies the proposed route for the Intra-City shuttle.

Bikeways

Bicycling is considered an environmentally friendly mode of transportation that enhances both personal and social well-being. In addition to transportation, this mode of travel provides many public access, health, and economic benefits. Bicycling is recognized as an integral component of San Marcos' transportation system, currently and in the future. Safe, convenient, attractive, and well-designed bicycle facilities are essential if this mode is to be properly accommodated and encouraged. This mode is integrated throughout the City's Complete Streets vision, and a network of bicycle facilities linking all areas of the City is envisioned.

Public Bus Service at Palomar Community College

SPRINTER Passenger Rail Service

Transit/SPRINTER Stations are located through- out the City

Photo credit all above: City of San Marcos

Intra-City Shuttle System concept

Photo credit: living-in-washingtondc.com

Bikeways and pathways improve mobility. Photo credit: City of San Marcos

The City currently has 60 miles of trails for bicycles and pedestrians, with plans for 72 miles.

Photo credit: City of San Marcos

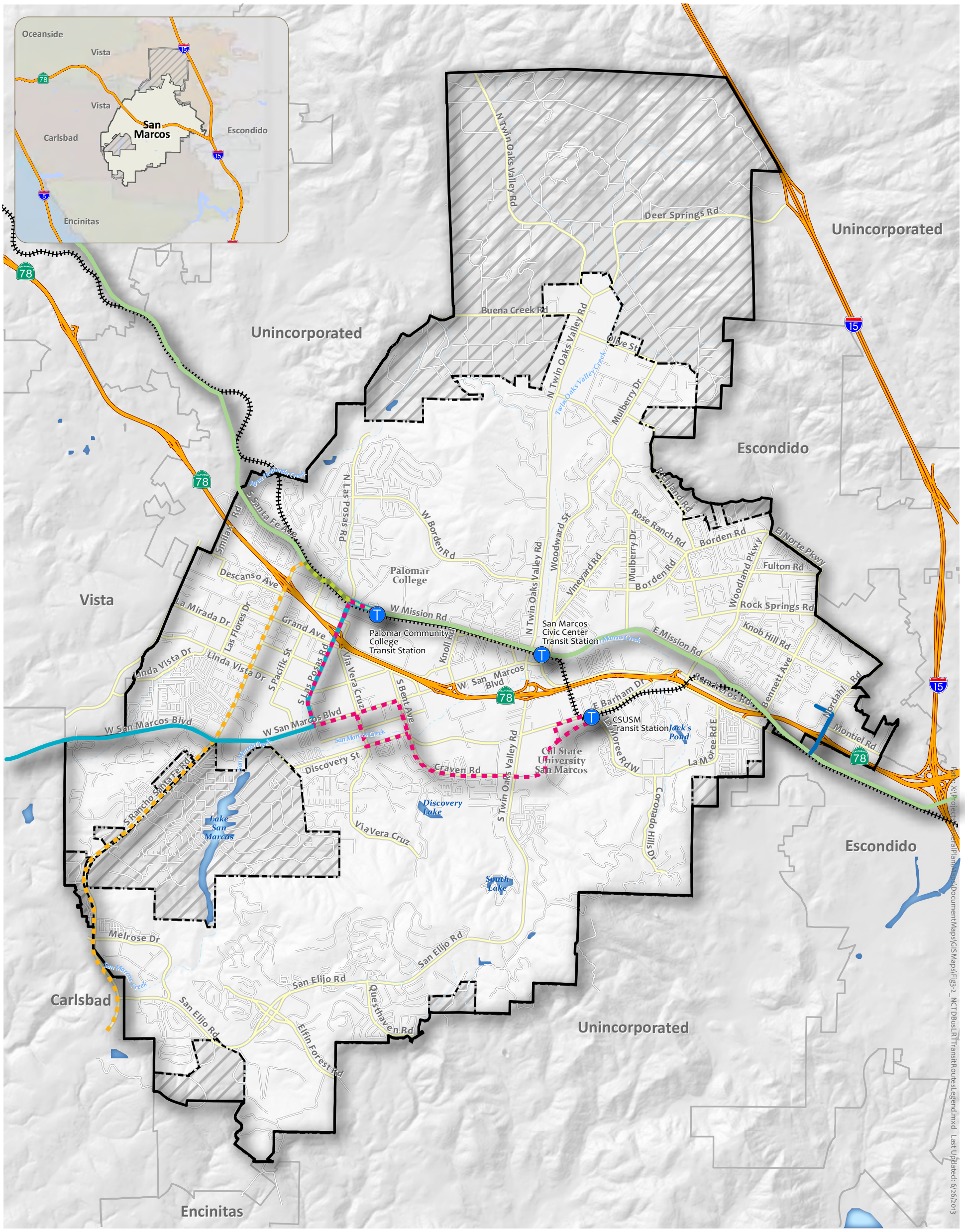
The City envisions bicycle sharing facilities. Photo credit: AECOM

The bicycle system in San Marcos includes a variety of bicycle facilities. These facilities include dedicated off-street bicycle routes and on-street bicycle routes designated by signage and striping on the roadway.

The City's Active Transportation Plan identifies existing and planned bikeway facilities within San Marcos.

The Active Transportation Plan include gearing the bike-way system towards being more destination-oriented, especially towards employment centers, residential areas, and high-use activity centers. This complete system will emphasize the following key components:

- Local and regional continuity and connectivity
- Increasing safety by focusing on visibility for cyclists
- Educating both cyclists and drivers to coexist with an awareness of each other
- Utilizing environmentally sensitive routing to minimize environmental impacts whenever possible
- Continued consideration of methods to promote the benefits of cycling.



3 MOBILITY ELEMENT

FIGURE 3-2

City of San Marcos

NCTD Bus and LRT Transit Routes

- San Marcos City Limits
- Sphere of Influence
- Planning Area
- Major Hydrologic Features
- Creeks
- Freeway
- Highway
- Major Road
- Minor Road
- Light Rail Transit (LRT) Line
- Light Rail Transit (LRT) Station

NCTD BREEZE Routes

- 304
- 305
- 304 and 305
- 347
- 347, 304, 305, 445
- 347 and 445
- 353
- 445

0 0.25 0.5 1 Miles

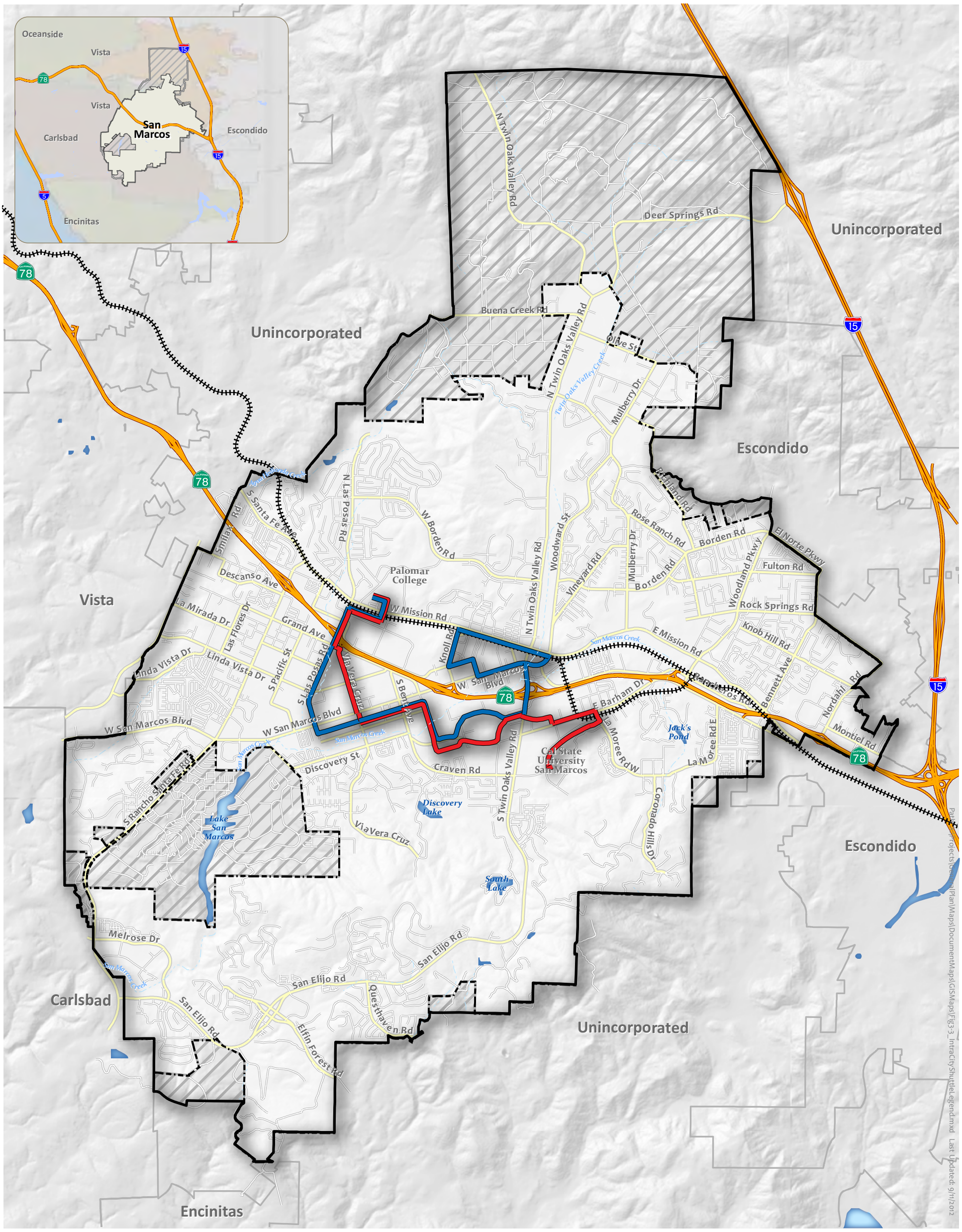
SOURCES OF DATA:
City of San Marcos 12/12 and NCTD, 12/12

This page intentionally left blank.

FIGURE 3-3

City of San Marcos

Intra-City Shuttle



SOURCES OF DATA:
City of San Marcos 9/12 and Fehrs and Peers, 10/11

This page intentionally left blank.

Discovery Hills Trail

Photo Credit: City of San Marcos

Pedestrian and Trails Facilities

Walking is another environmentally friendly mode of transportation that enhances both personal and social well-being. In addition to transportation, this mode of travel provides many public access, health, and economic benefits. Walking is recognized as an integral component of San Marcos' transportation system. Well-designed pedestrian facilities are safe, attractive, convenient, and easy to use.

Pedestrian paths are primarily developed as part of the roadway and trail systems of a City and reflect the interconnected nature of circulation and transportation systems as a whole. Currently sidewalks are provided along most of the major routes within the City. However, there are some gaps, especially in the older areas and in the industrial/manufacturing areas developed prior to 1990.

The City of San Marcos boasts a unique trail system that aims to provide recreational access and alternative circulation for non-motorized users through an interlinked City-wide system of trails connecting neighborhoods to local parks, schools, Palomar Community College, and California State University San Marcos. The system is also designed to connect with the wider regional trails system as planned by adjacent cities, such as Carlsbad, Vista, Escondido, and Encinitas, and the County of San Diego.

Photo Credit: City of San Marcos

The City of San Marcos maintains a Master Trail Plan that depicts the buildout of the trail and park system within the City. The map identifies 60 miles of existing trails, with a buildout system of approximately 72 miles. Figure 3-5 shows the existing and proposed trail facilities for San Marcos.

Additional pedestrian facilities are planned within the City's Active Transportation Plan. This Plan establishes plans and policies surrounding human powered transportation including pedestrian modes.

Together, these master plans establish the City's pathway network including sidewalks, trails, and multi-use bikeways, which form a complete citywide system of pedestrian facilities.

Goods Movement Facilities

The goods or freight movement system in San Marcos consists of a rail system and designated truck routes. Each system is discussed below as it relates to the operation and service of transporting freight.

Freight Rail System

The freight line that runs through San Marcos is parallel to State Route 78. The freight rail line is operated by Burlington Northern Santa Fe (BNSF). The rail right-of-way is used by both freight and commuter (SPRINTER) rail services. BNSF is one of the largest railway companies in the United States with more than 390 different railroad lines.The City shall explore ways to move freight and passenger rail efficiently through the city and surrounding jurisdictions by evaluating the feasibility of rail grade separation along the Mission Road corridor.

Truck Routes

Currently the City designs and maintains designated truck routes to accommodate large vehicles to allow for the movement of goods throughout the city. The designated truck routes provide access to and from the I-15 and SR-78 corridors and other key areas citywide and beyond. The truck routes are identified and maintained within in the San Marcos Municipal Code.

City of San Marcos staff utilizing the Traffic Management Technology.

Photo credit: City of San Marcos

Parking lot at the San Marcos Civic Center Photo credit: City of San Marcos

Aviation Facilities

The two nearby airports – McClellan-Palomar Airport located approximately 2.5 miles west of the City of San Marcos, and San Diego International Airport (SDIA)/Lindbergh Field located approximately 35 miles south of the City, offer air service to the region. Palomar Airport is a gateway to and from San Diego's North County, which is a general aviation airport used primarily for business and recreational purposes. Lindbergh Field is the region's primary commercial airport.

Traffic Management Technology

The Traffic Management Center (TMC) at San Marcos City Hall is a critical part of an advanced traffic management system that manages traffic flow in the City. The TMC remotely controls most of the traffic signals in San Marcos. It also provides real-time video feeds from traffic cameras strategically located at the City's busiest intersections.

Traffic engineers staffing the TMC can check signal operations, adjust signal synchronization timing and monitor traffic progression throughout the City. The TMC opened in 2003 and was made possible through Congestion Management and Air Quality Improvement Program (CMAQ) funding. Since then, the City has used federal and state funding to improve the TMC. Ongoing improvements include installing additional traffic cameras, upgrading traffic controllers, deploying an adaptive traffic control system on San Marcos Boulevard, and establishing a fiber optic communication network to interconnect many of the City's signals and traffic cameras.

The City continues to aggressively seek federal and State grants to improve traffic operations throughout the City, utilizing avail- able funds to expand the TMC by connecting to additional signals within the City and adding traffic cameras. Additionally, the City has implemented signal coordination on some of its heavily traveled corridors, including implementation of state of the art signal optimization strategies like adaptive signal control. In the future, Mission Road will be converted to an adaptive traffic control system which will also coordinate the rail crossings.

The City will continue to investigate state of the art technology in order to better serve the users of the transportation system. Appropriate technologies will be integrated, as appropriate, to maximize the efficiency of the transportation system.

Parking

The City has undertaken measures to improve parking conditions by readdressing circulation within the parking facilities, update parking stall dimensions, and considering Smart Parking techniques. Examples of Smart Parking techniques include:

- Shared Parking – Allowing uses that have different temporal (time of day) parking demands to share the same parking facilities. This is an effective way to minimize pavement, allow land use to be more compact, provide for more landscaping, and provide improved walkability within a mixed-use area. The best example of shared parking is an office building and an apartment building as office's peak parking demand occurs at 10:00 a.m. and apartment's peak parking demand occurs at 11:00 p.m.

- Collective Parking – Allowing uses in mixed use districts to utilize up to 50% of the vacant on-street parking to count toward their parking supply requirements.

- Park Once – A strategy whereby destination districts attempt to have visitors "park once" and visit a series of destinations. Park once strategies work well in downtown or mixed-use districts that are well connected by pedestrian and bicycle facilities.

- In Lieu Parking Fees – A strategy by which developers can contribute in lieu fees toward the development of a common parking facility. This works best in downtown or mixed-use districts, works well to assist in paying for unified structured parking, and provides developers an opportunity to increase density on their parcels.

- Parking Locator Signs – These are electronic monitoring devices that identify the available parking in a given facility and utilize changeable message signs to assist travelers in identifying available parking locations.

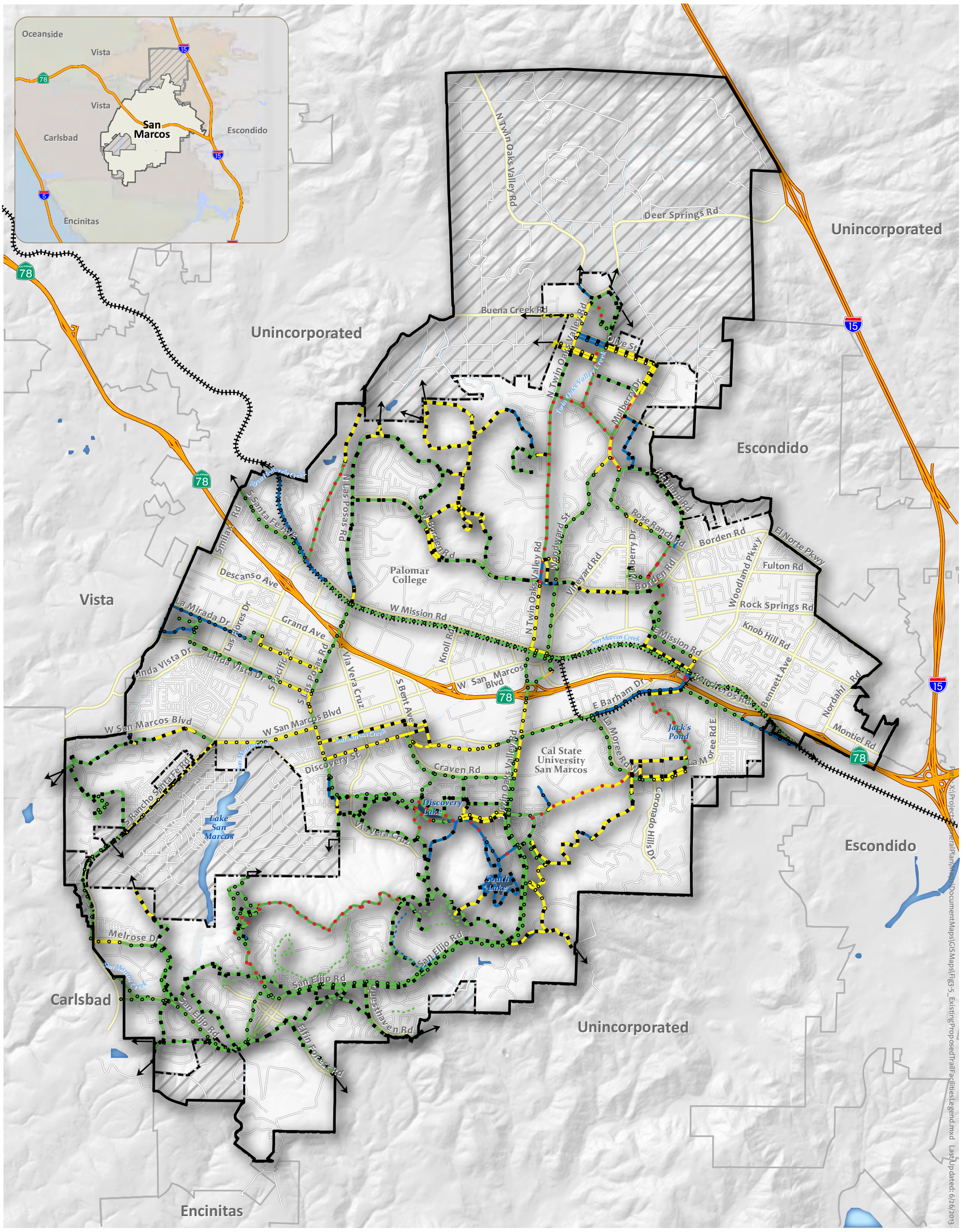
Although there are additional smart parking strategies that are available and may become available in the future, most of the strategies work best in smart growth/mixed use development areas and will be necessary to accomplish the goals and visions identified for this General Plan.

Traffic Calming

Traffic calming is a series of methods to reduce vehicle speeds, improve safety, and enhance quality of life. Traffic calming includes traffic education, enforcement, and engineering (the three E's) to change driver behavior (such as encouraging vehicles to travel at a lower rate of speed).

Rock Springs Roundabout, before (top) and after (bottom).

Photo Credit all: City of San Marcos



3 MOBILITY ELEMENT

FIGURE 3-5

City of San Marcos

Existing and Proposed Trail Facilities

0 0.25 0.5 1 Miles

San Marcos City Limits
Sphere of Influence
Planning Area
Major Hydrologic Features
Creeks
Railroad
Freeway
Highway
Major Road
Minor Road

Trails Master Plan
- Multi-Use - Existing
- Multi-Use - Future - Not On Development Plans
- Multi-Use - Future - On Development Plans
- Private - Existing
- Private - Future - On Development Plans
- Sidewalk - Existing
- Soft Surface - Existing
- Soft Surface - Future - Not On Development Plans
- Soft Surface - Future - On Development Plans
- Urban - Existing
- Urban - Future - Not On Development Plans
- Urban - Future - On Development Plans

Trails Master Plan Continuations

SOURCES OF DATA:
City of San Marcos 9/12

Traffic calming is encouraged within the City on neighborhood streets and other areas where high levels of pedestrian activity are envisioned (such as the San Marcos Creek District and the University District).

Transportation Demand Management (TDM)

As identified in the Ds of smart growth, one component of reducing the reliance of the single occupant vehicle is to implement a comprehensive TDM program. TDM consists of measures and policies to promote alternative modes of travel. These can include employers providing transit passes to employees, developers providing secure bicycle parking and showers at key employment centers, preferred parking for carpools, or reduced parking supply to encourage alternative travel modes.

Given the network of mobility options the City currently has (and envisions expanding as part of this General Plan) and the educational facilities at the City, TDM has the potential to be extremely successful within the City.

Circulation Improvements

The SANDAG 2050 Regional Transportation Plan (RTP) identifies improvements that are planned to be implemented through existing funding sources by Year 2050. Circulation improvements identified for San Marcos are shown on Figure 3-7. The following improvements have been identified in the 2050 RTP document and are supported by this Mobility Element:

Transit:

- Expanded light-rail and express light-rail service through San Marcos extending between Oceanside and Escondido
- Streetcar/shuttle service through the core of San Marcos

Roadway:

- Managed lanes added to State Route 78

Bicycle:

- Carlsbad/San Marcos Bicycle Corridor
- Encinitas/San Marcos Bicycle Corridor
- Inland RailTrail Bicycle Corridor

The TransNet funds received each year by the City of San Marcos are designated for local streets/roads and State Route 78 interchanges.

3.3 Mobility Plan

Efficient Local and Regional Circulation System

The City strives to "right size" the transportation system for all modes of travel. This "right sizing" includes providing the most appropriate system to integrate the adjacent land uses with the public realm, provide choices for all modes of travel, provide sufficient capacity (without over-supplying the system), and maximizing the efficiency of the system. This enables the City to maximize the use of each of its mobility investments.

Goal M-1

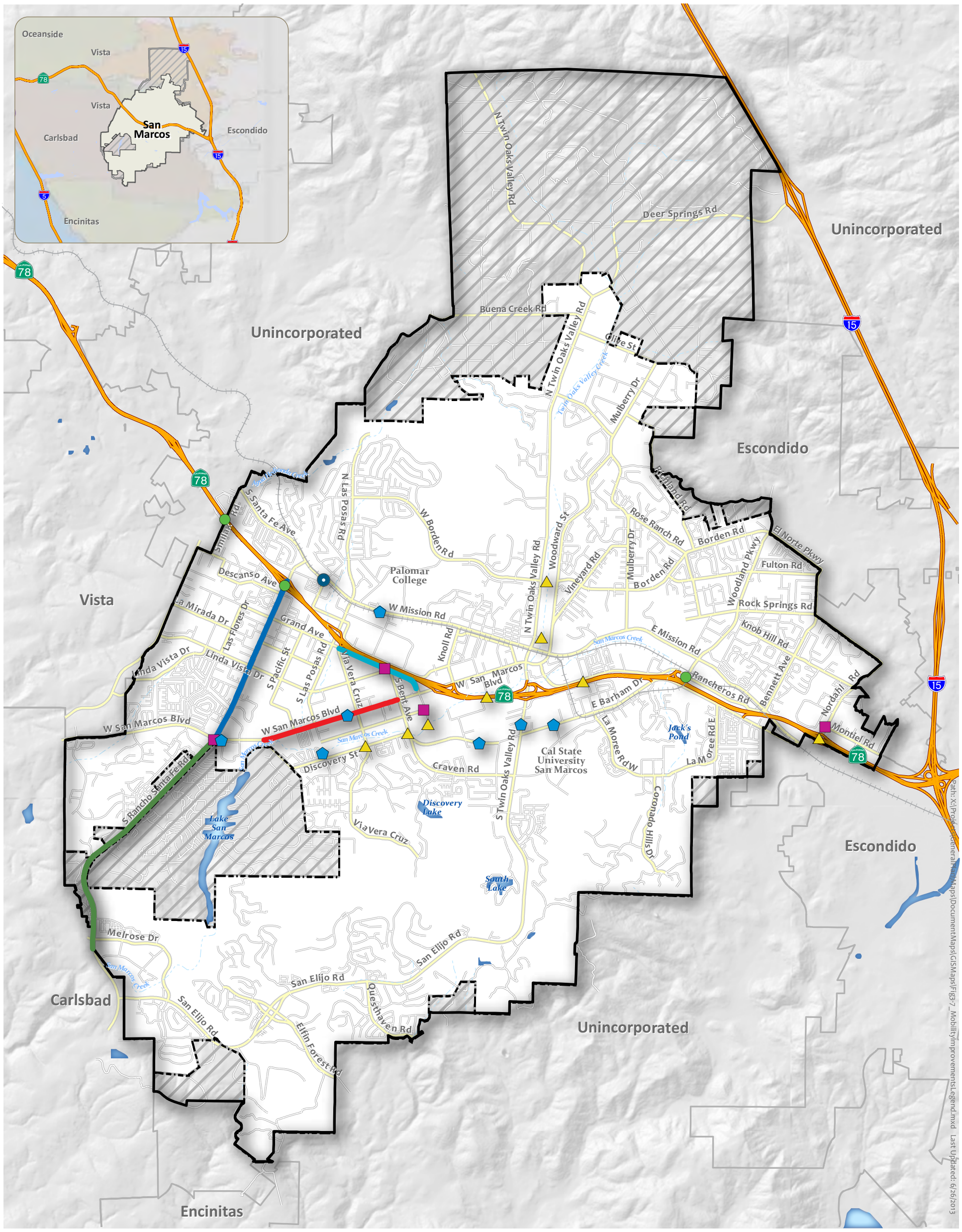
Provide a comprehensive multimodal circulation system that serves the City land uses and provides for the safe and effective movement of people and goods.

Policy M-1.1: Safely and efficiently accommodate traffic generated by development and redevelopment associated with implementation of the General Plan Land Use Policy Map.

Policy M-1.2: Require new development to finance and construct internal adjacent roadway circulation and City-wide improvements as necessary to mitigate project impacts, including roadway, transit, pedestrian and bicycle facilities.

Policy M-1.3: Require new developments to prepare and implement Transportation Demand Management (TDM) programs in compliance with the City's TDM Ordinance and Policy to minimize vehicle trip generation and promote alternative modes of travel within the City.

Policy M-1.4: Utilize a proactive design approach that improves the overall performance characteristics of roadways including their quality, safety, and environmental performance.



3 MOBILITY ELEMENT

FIGURE 3-7

City of San Marcos

Mobility Improvements

San Marcos City Limits
Sphere of Influence
Planning Area
Major Hydrologic Features
Creeks
Railroad
Freeway
Highway
Major Road
Minor Road

Mobility Improvements
4-Lane Multi-Way Boulevard
4-Lane Roadway
6-Lane Roadway
Lane Reduction
Bridge / Overcrossing or Undercrossing
Interchange Improvement
Intersection Improvement
Pedestrian Bridge
Sprinter Grade Separation

0 0.25 0.5 1 Miles

SOURCES OF DATA:
City of San Marcos 10/12

This page intentionally left blank.

Table 3-4 – LOS Parameters

Sample Street	Mode Preference				Sample Street Typology
	Transit	Bicycle	Pedestrian	Vehicular	
San Marcos Boulevard, Discovery to Grand	↑ LOS D	↑ LOS D	↑ LOS C	↓ LOS E	Multi-Way Boulevard with Class IV bike and enhanced pedestrian facilities
Rancho Santa Fe Road, Portion of Twin Oaks Valley Road	↓ LOS E	↓ LOS E	↓ LOS E	↑ LOS D	Arterial with Class II or ClassI/IV bike facility and enhanced sidewalks
Mission Road, Portion of Twin Oaks Valley Road	↑ LOS D	↑ LOS D	↑ LOS C	↑ LOS D	Arterial Class I/Class IV bike and enhanced Pedestrian Facilities
SR-78	↓ LOS E	☒	☒	↑ LOS D	Freeway
Collectors	↓ LOS E	↑ LOS D	↑ LOS C	↓ LOS E	Collectors
Bike/Pedestrian Trails	☒	↑ LOS D	↑ LOS C	☒	Class I Bike/Ped Paths; Class IV bike facility
Neighborhood Streets	↓ LOS E	↑ LOS D	↑ LOS C	↓ LOS E	Neighborhood Streets
Industrial Streets	↓ LOS E	↓ LOS E	↓ LOS E	↑ LOS D	Industrial Streets with sidewalks, some with Class IV bike facilities
Main Street (University District)	↓ LOS D	↑ LOS D	↑ LOS C	↓ LOS E	Main Street Concept

Notes: ↑ = Mode Prioritized ↓ = Mode not Prioritized ☒ = Mode Prohibited

Policy M-1.5: Continue to participate in SANDAG's efforts to coordinate regional transportation planning with its member agencies, and continue to consult with Caltrans on transportation planning, operations, and funding to develop the City's circulation system as it relates to State Route 78 capacity and access.

Policy M-1.6: Work to improve connectivity within the City by closing gaps in the existing bicycle, pedestrian, trail, transit, and roadway network. Work with new development to provide connectivity and redundancy in the mobility network.

Policy M-1.7: Strive to ensure that streets within San Marcos shall be complete streets where feasible; thereby providing accessibility, safety, connectivity, and comfort for all modes and users of the system. Appropriate new local streets and Main Streets will prioritize pedestrian and bicycle users through the corridor.

Policy M-1.8: Continue to utilize technology and intelligent transportation systems to stabilize street system flow and efficiency as an alternative to roadway widening, where feasible.

Policy M-1.9: Continue to work with new development, local agencies, and regional agencies to implement additional freeway connections across existing barriers (freeways, major roadways, creaks, etc.) for bicycles and pedestrians.

Policy M-1.10: Update the road standards manual, under the direction of the City Engineer, to assign street typologies to City streets, depict roadway cross- sections, and where appropriate, incorporate the complete street philosophy.

Traffic Calming and Safety

The City strives to improve safety and livability within the City's neighborhoods. This is accomplished by implementing neighborhood-scale design features, such as traffic calming devices, to manage traffic speeds in these areas.

Goal M-2

Protect neighborhoods by improving safety for all modes of travel and calming traffic where appropriate.

Policy M-2.1: Work with new development to design roadways that minimize traffic volumes and/or speed, as appropriate within residential neighborhoods, while maintaining the City's desire to provide connectivity on the roadway network.

Policy M-2.2: Develop and update roadway standards that ensure safe and efficient movement for all modes of travel on local roadways.

Policy M-2.3: Consider roundabouts, as appropriate, as an intersection control device with demonstrated air quality, traffic efficiency, and safety benefits.

Alternative Modes of Travel

The City of San Marcos promotes and values the use of travel modes other than the single occupant vehicle. To that end, the following policies ensure that a true multi-modal system is implemented within the City.

Goal M-3

Promote and encourage use of alternative transportation modes such as transit, bicycles,neighborhood electric vehicles (NEVs), and walking, within the City.

Policy M-3.1: Develop an integrated, multimodal circulation system that accommodates transit, bicycles, pedestrians, and vehicles; provides opportunities to reduce air pollution and greenhouse gas emissions; and reinforces the role of the street as a public space that unites the City.

Policy M-3.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians through design, maintenance, and law enforcement.
Install wider sidewalks and curb extensions at pedestrian crossings (bulb outs) where appropriate.

Policy M-3.3: Provide a pedestrian and bicycle network that maximizes connectivity between major destinations.

Policy M-3.4: Develop and maintain appropriate planning documents such as Active Transportation Plans and Trails Master Plans to support the development of facilities that promote active transportation throughout the city.

Policy M-3.5: Ensure that streets in areas with high levels of pedestrian activity (such as employment centers, residential areas, mixed use areas, and schools) support safe pedestrian travel by pro- viding detached sidewalks, bulb-outs, enhanced pedestrian crossings, pedestrian bridges, and medians.

Policy M-3.6: Establish an intra-city shuttle system that connects the central development nodes of the City with Palomar Community College, California State University San Marcos, and the urban core of the community.

Policy M-3.7: Coordinate with NCTD and other transit agencies to minimize overlap of the transit system, while maximizing the service areas covered by the complete transit system.

Policy M-3.8: Work with regional agencies, such as SANDAG, to install appropriate recharging stations to support the use of electric vehicles. Work with developers to install recharging stations at appropriate activity, employment, and transit centers to support electric vehicle use.

Policy M-3.9: Develop enhanced pedestrian environments to improve the character and function of the pedestrian space including amenities such as lighting, wider sidewalks, landscaping, buffers, benches, signage, and transit shelters. .

Parking

Parking at key activity centers is critical to the success of the center. However, parking needs to be provided appropriately. Over or under parking these locations both will negatively impact the success of the center. Additionally, mixed use districts succeed when vehicles are parked in a common location and patrons walk between their destinations. The City strives to provide the right amount of parking in these locations.

Goal M-4

Provide efficient parking within the City.

Policy M-4.1: Evaluate and promote the potential for shared parking between adjacent uses within mixed use districts.

Policy M-4.2: Encourage mixed use development to utilize smart parking techniques, such as parking management plans, in-lieu parking fees (in proximity to parking structures), use of structured/podium parking in mixed use areas, parking information signs for users, appropriate reduced parking requirements in mixed use and transit oriented developments, and other techniques to provide sufficient parking supply while minimizing the need for paved surface parking lots.

Movement of Goods

The City of San Marcos recognizes that its economic vitality is dependent on the City's ability to move goods and services throughout the City and the region. However, the City recognizes that the movement of goods needs to be accommodated on identified routes within the City to ensure that those routes are appropriately designed to accommodate the vehicles (e.g. appropriate turning-radii, appropriate roadway structural sections, etc.). Additionally, identifying appropriate routes will limit the conflict of heavy vehicles with inappropriate land uses (such as residential and/commercial) and minimize conflicts with bicycle/ pedestrian users in the City.

Goal M-5

Provide for the safe and efficient movement of goods throughout the City.

Policy M-5.1: Consult with other agencies and private entities (such as the BNSF) to identify ways to maintain, improve, and expand rail services to safely meet existing and future needs of residents and businesses.

Policy M-5.2: Maintain truck route designations on appropriate facilities as needed to facilitate the efficient movement of goods.

This page intentionally left blank.