6.0 MOBILITY



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Fair Oaks Avenue and Orange Grove Boulevard form the backbone of the Fair Oaks/Orange Grove Specific Plan area, which consists primarily of the parcels fronting along these major streets. In addition to framing the Specific Plan area, these streets are the Principal Mobility Corridors which provide north-south and east-west access to the surrounding area (Figure 6.1).

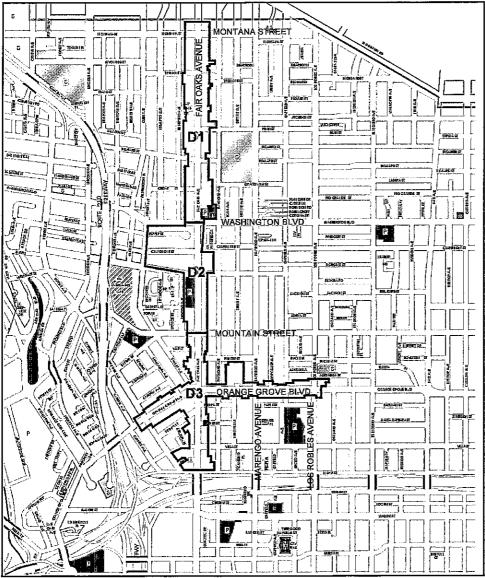


Figure 6.1 Fair Oaks/Orange Grove Specific Plan—Existing Street Pattern

Secondary north-south access in the Specific Plan area is provided by Lincoln Avenue, Marengo Avenue and Los Robles Avenue. Secondary east-west access is provided by Washington Boulevard, Mountain Street and Maple Street. Maple Street is the frontage street parallel to I-210 Freeway at the south end of the planning area.



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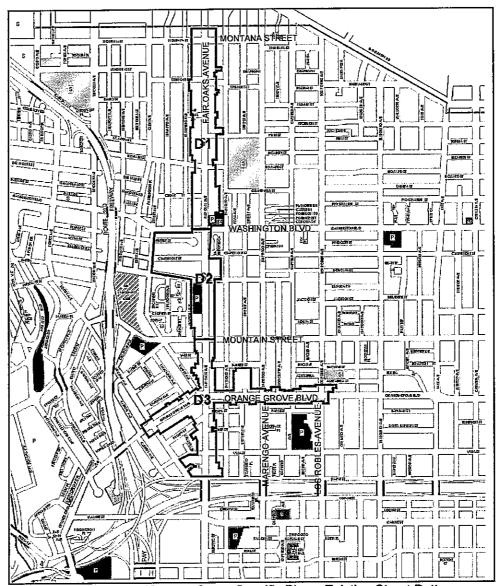


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6.1 General Plan Mobility Element

The Mobility Element of the General Plan designates Fair Oaks Avenue and Orange Grove Boulevard as Principal Mobility Corridors. Fair Oaks is additionally designated as a Truck Route. Los Robles Avenue is also identified as one of the backbone streets of the City's transportation system. According to the Mobility Element, the designation of these corridors will allow the development of appropriate transportation strategies to focus travel on to, and provide for convenient movement along, these corridors.

6.1.1 Goals of the Mobility Element

In addition to calling out street designations within the City, the Mobility Element contains City-wide goals, policies and plans to provide for convenient and efficient mobility, while reducing reliance on the automobile as the primary means of travel. Key goals of the Mobility Element are:

- Goal 3.1: Increase the Availability and Use of Transit
- Goal 3.2: Increase the Use of Bicycling and Walking
- Goal 3.3: Reduce the level of Vehicular Trips in General, and Specifically the Use of Autos for Drive-Alone Trips
- Goal 3.4: Develop Land Use Planning to Support Mobility Goals
- Goal 3.5: Establish Principal Mobility Corridors within the City
- Goal 3.6: Reduce Adverse Impacts of Through-Traffic and Control Flows into Designated Corridors
- Goal 3.7: Regional Coordination

The goals balance accommodation of the automobile with policies that encourage transit, pedestrian, and bicycle mobility. The General Plan calls for giving equal consideration to the aesthetic character and livability of residential neighborhoods as well as traffic engineering criteria in the design of street improvements. The General Plan states that the basis of evaluation for all street improvements should include:

- streetscape and landscaping,
- lighting levels appropriate to neighborhood character, circulation requirements and public safety considerations,
- reducing or stabilizing traffic levels on local streets,
- increasing safety through limiting speed, and
- routing through traffic away from residential areas.

6.1.2 Mobility Element Objectives and Policies Promoting Transit, Pedestrian and Bicycle Mobility

The objectives and policies outlined in the Mobility Element to achieve the transit, bicycle and pedestrian goals include:

Goal 3.1: Increase the Availability and Use of Transit

 Develop strategies to maximize use of light rail (transit feeder buses, mixed-use development at LRT stations)



- Expand Regional and Local Bus Service
- Decrease Reliance on Automobiles

Goal 3.2: Increase the Use of Bicycling and Walking

- Provide Enhanced Bicycle Facilities (such as paths, streets, and parking)
- Improve the Pedestrian Environment (such as sidewalks, street furniture, cleaning, awnings, lighting, etc.)

Goal 3.4: Develop Land Use Planning to Support Mobility Goals

- Increase Land Use Densities in Transit Corridors (including new multifamily residential development)
- Develop Mixed-Use Zoning (to encourage living and working in the same area and trip reduction)
- Encourage Supportive Urban Design (pedestrian-friendly, buildings close to the street, parking at the rear, inclusion of transit facilities, developer contributions to City's transit services, etc.)

6.1.3 Protecting Residential Neighborhoods

Goal 3.6 of the Mobility Element strives to protect neighborhoods from traffic impacts by improving the traffic flow on mobility corridors, so that traffic will be less likely to seek alternative routes and short cuts through residential streets.

The Neighborhood Traffic Management Program (NTMP) is a tool used to achieve this objective. An NTMP consists of measures to control traffic speed, traffic volume and parking impacts on residential streets. Appropriate use of speed humps, street narrowing, medians, necking down of entry ways, traffic signs and traffic enforcement are some of the methods used to reduce speeding. Ways to reduce traffic volume include turn prohibitions during peak hours, appropriate guide signs, traffic barriers, cul-de-sacs, islands and other measures which make the street less desirable for travel. Parking impacts could be alleviated by restricting parking duration and parking periods, preferential parking programs, and providing adequate off-street parking.

The City has identified several neighborhoods where a NTMP is needed. One of them is the Washington Neighborhood Revitalization area where such a program is presently being implemented. Another area in the Northwest, bounded by the City limit on the north, Fair Oaks Avenue on the East, Orange Grove Boulevard on the South, and Lincoln/210 Freeway on the west, is scheduled for study and design in Fall 2001, with implementation in late 2002.

6.2 Existing Street Pattern

The following list provides information on the primary roadways in the Specific Plan area.

■ I-210 (Foothill) Freeway is an east-west freeway connecting Pasadena with the San Fernando Valley to the west and the San Gabriel Valley to the east. Interchanges in the Fair Oaks/Orange Grove Specific Plan area are located at Howard Street, Mountain Street, Fair Oaks Avenue and Marengo Avenue.



- Fair Oaks Avenue as a major north-south principal mobility corridor generally provides two through travel lanes in each direction within the Specific Plan area. It is also one of the four remaining truck routes in the City's truck route network.
- Orange Grove Boulevard as a major east-west route and a principal mobility corridor through the City of Pasadena extends from Lincoln Avenue to Rosemead Boulevard. In the Specific Plan area, two through lanes are provided in each direction.
- Lincoln Avenue is a major north-south route within the City of Pasadena, and is posted for a Bike Route within the Specific Plan area.
 Two through travel lanes are generally provided in each direction.
- Washington Boulevard is a major east-west route through the City of Pasadena. Two travel lanes are generally provided in each direction.
- Mountain Street is a major east-west route through the City of Pasadena from the Foothill Freeway to Altadena Drive. Two travel lanes are generally provided in each direction between Lincoln Avenue and Raymond Avenue.
- Villa Street is a minor east-west route through the City of Pasadena.

 One through travel lane is provided in each direction.
- Maple Street is a one-way westbound frontage road for the Foothill Freeway. Typically, two through travel lanes are provided on Maple Street in the Specific Plan area.
- Los Robles Avenue is a principal mobility corridor north of Del Mar Boulevard and provides a major north-south route within the Specific Plan area. Typically, one through travel lane is provided in each direction.

Exclusive left turn lanes at major intersections are provided on these streets. Onstreet parking are generally provided except near intersections on all these streets, except on Lincoln Avenue, Washington Boulevard, Mountain Street and Maple Street. The posted speed limit varies from 25 to 35 miles per hour.

6.3 Vehicular Mobility

6.3.1 Traffic Study intersections

The following 16 study intersections were selected by City staff for analysis of potential impacts related to implementation of the Specific Plan. As shown in the list of intersections below, 14 of the 16 intersections are controlled by traffic signals and the remaining two are controlled by stop signs.

- 1. Lincoln Avenue and Orange Grove Boulevard (signalized)
- 2. Fair Oaks Avenue and Montana Street (signalized)
- 3. Fair Oaks Avenue and Tremont Street (signalized)
- 4. Fair Oaks Avenue and Howard Street (signalized)
- 5. Fair Oaks Avenue and Washington Boulevard (signalized)



- 6. Fair Oaks Avenue and Hammond Street (signalized)
- 7. Fair Oaks Avenue and Mountain Street (signalized)
- 8. Fair Oaks Avenue and Orange Grove Boulevard (signalized)
- 9. Fair Oaks Avenue and Peoria Street (signalized)
- 10. Fair Oaks Avenue and Villa Street (signalized)
- 11. Fair Oaks Avenue and Maple Street (signalized)
- 12. Orange Grove Boulevard and Raymond Avenue (signalized)
- 13. Orange Grove Boulevard and Marengo Avenue (signalized)
- 14. Orange Grove Boulevard and Garfield Avenue (unsignalized)
- 15. Orange Grove Boulevard and Los Robles Avenue (signalized)
- 16. Fair Oaks Avenue and Painter Street (unsignalized)

Existing Traffic Counts and Level of Service

Based on manual counts of vehicular turning movements, all 16 study intersections are presently performing at a Level of Service (LOS) D or better during the weekday morning, midday and afternoon peak commuter periods as well as during the weekend peak period.

6.3.2 Recommendations for Traffic Improvements

6.3.2.1 Traffic Signal Synchronization System

The City of Pasadena has implemented a city-wide traffic signal synchronization system since 1991. This system is in operation at six of the 16 study intersections in the Specific Plan area, and is planned to include three additional study intersections before 2010. The Specific Plan recommends that the signal synchronization system be expanded to include the following study intersections:

- 6. Fair Oaks Avenue and Hammond Street
- 7. Fair Oaks Avenue and Mountain Street
- 10. Fair Oaks Avenue and Villa Street
- 11. Fair Oaks Avenue and Painter Street

The Fair Oaks Avenue and Painter Street intersection is currently un-signalized. A traffic signal could be added at that location if monitoring of future traffic conditions indicates a necessity for signalization.

6.3.2.2 Recent Physical improvements:

Intersection No. 8: Fair Oaks Avenue and Orange Grove Boulevard: The traffic signal phasing and timing was modified in 2000 to provide protected/permissive left-turn movements at the northbound and southbound approaches to the intersection. Further, the eastbound and westbound approaches were re-striped to provide one left-turn lane, two through lanes, and one right-turn only lane at the westbound approach to the intersection. This measure was accommodated within the existing roadway width. The location of traffic signal equipment was adjusted to conform to intersection layout modifications.



Intersection No. 15: Los Robles Avenue and Orange Grove Boulevard: Signal update was completed in April 2001. This project involves modifying the traffic signal phasing and timing to provide protected/permissive left-turn movements at the eastbound and westbound approaches to the intersection. The location of traffic signal equipment was altered to conform to intersection layout modifications.

6.3.2.3 Recommended Physical Improvements

Physical improvements to certain intersections are recommended in order to ensure satisfactory levels of service during the Specific Plan's duration. The recommended improvements are:

- Intersection No. 5: Fair Oaks Avenue and Washington Boulevard: Modify the traffic signal phasing and timing to provide protected/permissive left-turn movements at the eastbound and westbound approaches to the intersection. Further, the westbound left-turn pocket on Washington Boulevard should be lengthened to provide additional capacity in coordination with the signal modifications. It should be noted that on-street parking near the east leg (westbound approach) might be negatively impacted by the left-turn pocket extension. The locations of traffic signal equipment (i.e., loop detectors, signal heads, mast arms, and others) need to be adjusted to conform to intersection layout modifications.
- Intersection No. 13: Marengo Avenue and Orange Grove Boulevard: Re-stripe the northbound approach to the intersection to provide dual left-turn lanes and one right-turn only lane. Modify the traffic signal timing in conjunction with this measure. If necessary, the location of traffic signal equipment will be adjusted to conform to intersection layout modifications.
- Intersection No. 16: Fair Oaks Avenue and Painter Street: A warrant analysis indicated that current parameters do not meet the warrant thresholds. However, this measure could be pursued if future traffic monitoring indicates that conditions may meet signal warrants.
- Road Widening Fair Oaks Avenue between Maple Street and Villa Street: Conduct a feasibility study for widening on the east side of Fair Oaks Avenue between Maple Street and Villa Street. The study shall evaluate the possibility of widening the road right-of-way for the purpose of providing a separate left-turn lane at either one or both the northbound and southbound direction at the intersection of Fair Oaks Avenue and Villa Street. The study shall include several alternatives and corresponding costs and benefits for review and approval by the Department of Public Works and Transportation.



6.4 Public Transit Services

6.4.1 Existing Transit Services

6.4.1.1 Local and Regional Bus Service

There are five regional transit lines and one local line that serve the Fair Oaks/Orange Grove Specific Plan area. It has been observed that there is high ridership or usage of public transit in the planning area, particularly along Fair Oaks Avenue, Los Robles Avenue and Orange Grove Boulevard. The transit routes and location of bus stops within the Specific Plan area are shown in Figures 6.2 and 6.3. Transit routes currently serving the Specific Plan area include:

- MTA Line 177 travels from JPL to City of Hope in Duarte. It provides service along Seco Street, Lincoln Avenue and Orange Grove Boulevard (north-south direction).
- MTA Line 188 travels from North Fair Oaks at the northwest terminus to Duarte Road at the eastern terminus via Colorado Boulevard. It travels along Fair Oaks Avenue.
- <u>MTA Line 267</u> travels from its western terminus at Lincoln and Woodbury to the El Monte Bus Station at the eastern terminus.
- MTA Line 268, with a western terminus at JPL and an eastern terminus at the El Monte bus station, travels along Woodbury Road, Casitas Avenue, Lincoln Avenue and Washington Avenue in the planning area's vicinity.
- MTA Line 483 operates the length of Fair Oaks Avenue from Altadena to South Pasadena, and continues to downtown Los Angeles.
- Pasadena ARTS Bus refers to the Pasadena Area Rapid Transit Service that the City operates and provides free service. The current ARTS Uptown and Downtown routes shall be enhanced in March 2002 according to the 'Interim ARTS Restructuring Plan' that the City Council approved in October 2001. The new service routes shown in Figure 6.4.

6.4.1.2 Future Light Rail

The proposed extension of the existing Blue Line Light Rail Transit will provide service from the downtown Los Angeles Union Station to Sierra Madre Villa Avenue in Pasadena. The 13.5-mile trip from downtown Los Angeles to East Pasadena is expected to take 34 minutes.

The extension will have six station locations in the City of Pasadena, including the Pasadena Civic Center Station adjacent to Memorial Park. This will be the primary station used by transit users residing or working in the Fair Oaks/Orange Grove Specific Plan area. It will be located approximately one-half mile south of District 3.



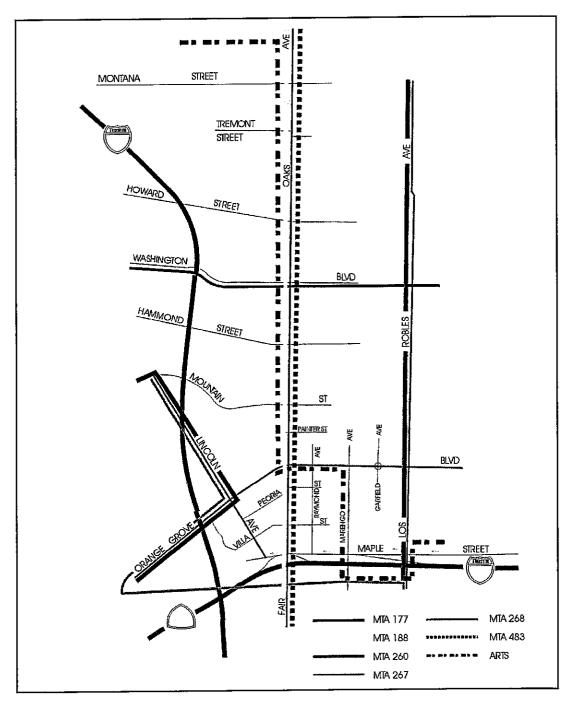


Fig 6.2 Fair Oaks/Orange Grove Specific Plan—Local Transit Route Lines



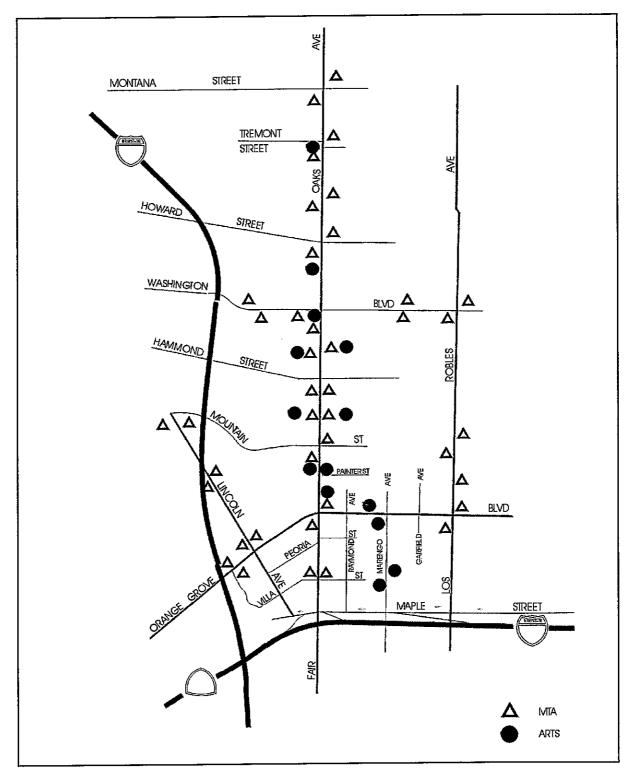


Figure 6.3 Fair Oaks/Orange Grove Specific Plan – Location of Transit Stops



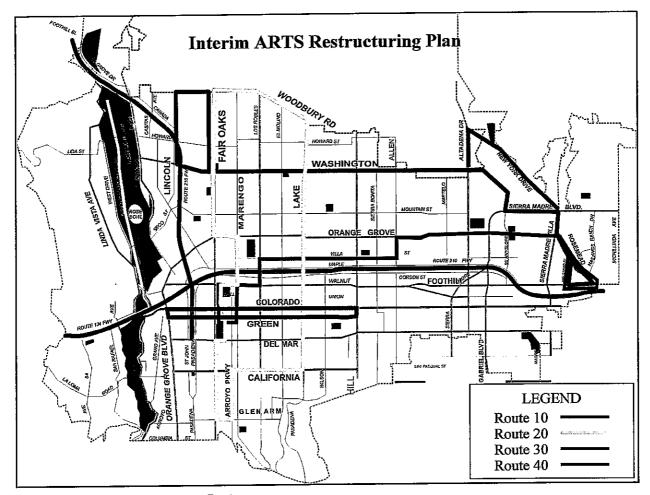


Figure 6.4 Pasadena ARTS Bus Routes

6.4.2 Recommendations to Improve Transit Services

One of the seven guiding principles contained in the City of Pasadena's General Plan states that "Pasadena shall be a city where people can circulate without cars." This principle further states that: "Specific plans in targeted development areas will emphasize mixed uses, pedestrian activity and transit; public and private transit will be made more available; neighborhood centers and urban villages will be promoted to reduce the need for auto use." Furthermore, Goal 3.1 of the Mobility Element calls for an increase in the availability and use of transit. These objectives and policies guide the mobility goals and strategies recommended for the Fair Oaks/Orange Grove Specific Plan.

The Mobility Element recommends the development of transit feeder service from residential neighborhoods to LRT station. Transit feeder service should be encouraged in the Northwest area, and include connections, particularly to the Memorial Park Light Rail Transit station, and to other stations and bus routes in the area. Shuttle routes and services should be developed where the likelihood for high ridership is projected.



The Fair Oaks/Orange Grove Specific Plan area has a high demand for transit compared to other areas of the City, as documented in a 1998 City of Pasadena report on transit needs ("Mobility Objectives for the Millennium" – MOM, authorized by the City Council in 1996, and adopted in 1998). The MOM study found that both the regional bus service (provided by the Los Angeles County Metropolitan Transportation Authority (MTA)) and the City of Pasadena's ARTS Uptown and Downtown services need to be either enhanced or expanded to better serve the Fair Oaks/Orange Grove Specific Plan area, as described below:

- Local Transit Service: The Pasadena ARTS Five Year Plan (June 1999) recommended that the Uptown Route be shortened by eliminating the eastern and western portions of the line. This route change would help ARTS ridership by making the Uptown Route more efficient and allow for increasing its frequency, particularly in the Fair Oaks/Orange Grove Specific Plan area where there is a need for more transit service.
- Regional Transit Service: Five MTA lines serve the Fair Oaks/Orange Grove Specific Plan area, however, additional connections are needed in order to provide connections for transit riders traveling outside of Pasadena. Increased service levels would encourage mobility options, thus, benefit residents and workers of the area.
- Blue Line Light Rail Service: The future Memorial Park Blue Line station will be the primary station used by travelers in the Fair Oaks/Orange Grove Specific Plan area, especially for commuters traveling to Downtown Los Angeles. Providing transit service to this Blue Line station may also alleviate potential parking issues in areas immediately adjacent to the station and help to reduce the number of vehicles traveling along the north/south corridor in the Fair Oaks/Orange Grove Specific Plan area.

The ARTS Uptown Route currently stops at the intersection of Holly Street and Raymond Avenue, adjacent to the future Memorial Park Blue Line station. Once the station is built, the ARTS Uptown Route should be redesigned to stop as close as possible to the pedestrian entrance of the Memorial Park Blue Line station.

Transit service oriented toward bringing commuters to Blue line stations should also be considered in the Fair Oaks/Orange Grove Specific Plan area. These feeders could run exclusively during the morning and afternoon peak commute periods along Fair Oaks Avenue to accommodate Blue Line riders. Providing peak period transit service to the Memorial Park station would help reduce the heavy ridership experienced on the ARTS Uptown Route buses and provide a more direct commuter service to and from the Memorial Park station.

The City Council approved in concept (on August 20, 2001) an ARTS route structure and plan proposed by the Transportation Advisory Commission (TAC). The route structure consists of nine



routes, each of which is designed to provide bus interface with the future light rail stations. The City Council directed the TAC and staff to refine the route and plan to address three issues: (1) overlapping of routes, (2) service frequency, and (3) cost and revenue plan.

Of particular interest to the Fair Oaks/Orange Grove Specific Plan area among the nine proposed routes is that of Route 20 that covers Fair Oaks Avenue and Lake Avenue, interfacing with four future light rail stations: (1) Memorial Park, (2) Del Mar/Arroyo Parkway, (3) Fillmore/Arroyo Parkway and (4) Lake/210 Freeway.

6.5 Parking Conditions and Parking Recommendations

6.5.1 Existing Parking Conditions

An inventory of on-street parking spaces throughout the Specific Plan area shows that there are a total of 1,086 spaces, as shown in Table 6-1 below.

Table 6-1: PARKING ACCUMULATION SURVEY BY DISTRICT					
Location	Number of Spaces	Weekday		Saturday	
		Occupied Spaces	Percent Occupied	Occupied Spaces	Percent Occupied
District 1	313	114	41.9	86	31.3
District 2	450	50	18.4	63	22.6
District 3	323	108	39.6	128	46.0
Total	1,086	262	25.0	268	25.6
Survey by Linscot	tt, Law & Greenspan, 3/	16/99 and 5/1/99			<u> </u>

6.5.1.1 Weekday Parking Demand

Weekday parking demand in the entire Specific Plan area indicates a 25 percent occupancy. While this indicates an adequate supply, there are certain blocks in each district where spaces are fully occupied or demand exceeded supply (vehicles were parked illegally) observed in the following blocks:

- North side of Orange Grove Boulevard between Sunset Avenue and Summit Avenue
- West side of Fair Oaks Avenue between Orange Grove Boulevard and Peoria Street

6.5.1.2 Weekend Parking Demand

The weekend survey indicates that the overall on-street parking occupancy was 25.6 percent. However, there were blocks where all spaces were occupied, or



where demand exceeds supply (vehicles were parked illegally). High weekend parking demand were observed in the following blocks:

- East side of Fair Oaks Avenue between Orange Grove Boulevard and Peoria Street, and between Villa Street and Maple Street.
- North side of Orange Grove Boulevard between Fair Oaks Avenue and Summit Avenue, and between Worcester Avenue and Garfield Avenue.
- South side of Orange Grove Boulevard between Marengo Avenue and Garfield Avenue.

High demand for parking was observed in District 3 during both weekday and weekend surveys.

6.5.2 Parking Recommendations

The following recommendations are based on the observations cited above:

- No parking spaces should be removed from the Specific Plan area, to the extent possible. Although majority of on-street parking spaces (i.e., more than 65 percent) in the Specific Plan area are readily available during both the typical weekday and weekend day, there are certain spots (those listed under Weekday Parking Demand and Weekend Parking Demand) where demand exceeds supply. Any reduction in the existing supply of parking spaces will potentially have adverse effect on the businesses on either corridor.
- For those locations where on-street parking is fully utilized, any future projects in the immediate vicinity should provide sufficient off-street parking to accommodate the proposed development. This recommendation should apply to the following intersections:
 - Fair Oaks Avenue and Mountain Street
 - Fair Oaks Avenue and Orange Grove Boulevard
 - Fair Oaks Avenue and Villa Street
 - Orange Grove Blvd. and Marengo Avenue
 - Orange Grove Blvd. and Garfield Avenue
- Consistent with the policies set forth in the Mobility Element of the General Plan, future developments should strive to more effectively utilize the limited parking supply through shared use of parking.
- Provide development incentives to encourage consolidation of parking, considering that landscaping regulations and access points become critical as parking lots become larger.

6.6 Specific Plan Pedestrian Conditions

The Specific Plan area has a core of pedestrian destinations surrounded by pedestrian origins. The primary destinations on Fair Oaks Avenue are the public transit stops located along both sides of the roadway for the entire length of the Specific Plan area, the Renaissance Plaza shopping center located at the



southwest corner of Fair Oaks Avenue and Orange Grove Boulevard, some employment sites, and the area near the Fair Oaks/Villa intersection (near Throop Lumber).

The primary destinations on Orange Grove Boulevard are various markets and retail stores located along both sides of the roadway, the shopping center located at the northeast corner of Orange Grove Boulevard and Los Robles Avenue, and Villa Parke Center on Villa Street between Los Robles and Garfield Avenue. Secondary destinations in the area include the Robinson Park complex, Jackie Robinson Center, La Pintoresca Park and Library, and the Pasadena Health Center.

Pedestrians originate from the apartment complexes and single-family residences located along both Fair Oaks Avenue and Orange Grove Boulevard. Other pedestrian origins include the convalescent homes located along Fair Oaks Avenue north of Washington Boulevard and the adjacent residential neighborhoods.

6.6.1 Existing Pedestrian-Friendly Characteristics

The Specific Plan area currently has pedestrian facilities and amenities that encourage good pedestrian movement, such as:

- Signalized intersections (14 of the 16 study intersection) provide pedestrian phasing with the traffic signal controls. These crossings are generally well distributed throughout the Specific Plan area.
- Wide crosswalks (approximately 13 feet) are provided on all four legs of the 14 signalized study intersections. Additionally, crosswalks are provided on at least one leg of the two remaining unsignalized locations.
- Sidewalks are provided throughout the Specific Plan area.
- Frequent local public transit stops are located throughout the Specific Plan area, facilitating high public transit usage by area residents and workers.

6.6.2 Existing Pedestrian-Unfriendly Characteristics

Fair Oaks Avenue and Orange Grove Boulevard are both designated as Principal Mobility Corridors and thus are primary vehicular routes. These roadways posses characteristics that create both physical and psychological inhibitors for pedestrians, the most significant of which are the speed and volume of vehicular traffic, particularly at uncontrolled pedestrian crossings.

The Specific Plan area currently has few sidewalk amenities that encourage and enhance the pedestrian experience. In addition, few bus shelters, benches and street furniture are provided to further encourage use of public transit.



6.6.3 Suggested Pedestrian Amenity Enhancements

Enhancements to the pedestrian experience are necessary to link residents and visitors to expanded transit services, inter-city rail, and regional bus services. Furthermore, enhancements, such as those listed below will facilitate pedestrian access to commercial development throughout the Specific Plan area. Additional recommendations for pedestrian amenities, development standards and design guidelines that enhance the pedestrian environment are located in Chapter 5.0.

- Install a controlled pedestrian crosswalk at Fair Oaks and Painter intersection, which currently has a stop sign control on Painter Street approach. A control mechanism to improve pedestrian safety, especially the clients and customers of the Foothill Vocational Opportunities will contribute to the pedestrian friendliness of the Fair Oaks corridor.
- Install a pedestrian crosswalk control mechanism at Orange Grove and Garfield Avenue intersection, which currently has a stop sign control on Garfield Avenue approach. A control mechanism would facilitate pedestrian crossings on Orange Grove Boulevard coming from the neighborhoods on the north side of Orange Grove to the Villa Parke Community Center located at Garfield Avenue and Villa Street. Villa Parke Center is a busy place with an active participation from the residents of the surrounding communities.

A signal warrant analysis were conducted at Fair Oaks/Painter, and at Orange Grove/Garfield in summer 2000 (using Caltrans' signal warrants/parameters). Each warrant analysis concluded that current conditions do not warrant or meet the required thresholds for a traffic signal. While a traffic signal is not warranted at this time, it is recommended that the City continues to monitor these intersections due to significant pedestrian traffic and high traffic volumes. Continuous monitoring would determine that a traffic signal will be considered when conditions meet signalization thresholds.

- In cooperation with Caltrans, enhance the bridge on Fair Oaks Avenue across the I-210 freeway that links the Specific Plan area to the Central District, especially the Pasadena Old Town. Enhancements could be in the form of streetscape landscaping, trees to provide shade, and pedestrian scale lighting to provide security for pedestrians.
- Working with property owners, reconstruct sidewalks where gaps exist, or where the pavement needs repair throughout Fair Oaks and Orange Grove corridors.
- Install decorative crosswalks at key commercial intersections
- Install pedestrian-scale lighting intermediate the existing light standards throughout the corridors.
- Install landscaping where trees are missing, to maintain a rhythm of shades and color along both Fair Oaks and Orange Grove corridors, with adequate irrigation and maintenance.
- Install new and improved bus stop shelters, benches, and trash receptacles; especially at selected key intersections listed above,



- according to placement and design guidelines contained in the Community Design Chapter (Chapter 5.0) of this Specific Plan.
- Establish gateways, or decorative community identification signage or icons at key intersections, such as at Fair Oaks/Orange Grove, Fair Oaks/Washington, Fair Oaks/Villa, Fair Oaks/Montana and Orange Grove/Lincoln, Orange Grove/Los Robles, to signal arrival to the Specific Plan area, as indicated by installing any or a combination of the following:
 - Visual or graphic icons,
 - Public art, constructed with durable materials,
 - Signage and banner poles
 - Information kiosks
 - Trash receptacles
- Enhance compliance with Americans with Disabilities Act (ADA), such as: curb cuts, sidewalk ramps, audible traffic controls, etc. Completion of the city-wide sidewalk curb cuts would advance this objective.
- Widen sidewalks where viable, subject to more detailed site survey. Possible locations are the key commercial nodes or activity centers. Wider sidewalks are needed to accommodate street furniture, starting with the bus stop shelters, benches, and trash receptacles, aside from facilitating access to individuals with disability according to ADA guidelines.
- Provide sufficient curb space (as in bus cut-outs), where feasible, where Dial-A-Ride vans and Access Service vans can load and unload their clients. These vans cannot go on private property or in alleys, and need sufficient curb space to stop and pick up or unload passengers.
- Install appropriate directional and informational signs for motorists and pedestrians.
- Provide striping/signing, crossing guards, traffic signals, and other safety devices that are deemed to improve children pedestrian safety at designated school crosswalks and crosswalks near schools and park areas.
- Treat sidewalk finishes with non-slippery surfaces and maintaining level and flat walkways where possible to improve pedestrian safety.
- Encourage businesses to install awnings, umbrellas and flower boxes and other pedestrian amenities.
- Encourage new large developments to provide transportation service (such as providing vans), or to financially support existing City services for their residents.
- Encourage businesses to institute regular sidewalk cleaning where heavy pedestrian traffic and activities occur.



6.7 Other Transportation Management Measures

6.7.1 Truck Routes

The City's truck route network was significantly reduced with the adoption of the General Plan update in 1994. The remaining designated truck routes, which include Fair Oaks Avenue, are needed to serve the commercial and industrial transport needs of the business community, to support development, and for the continuation and revitalization of the commercial and industrial areas of the City.

Truck routes direct truck traffic to roadways designed to accommodate these vehicles and restrict vehicles from streets that are undesirable for heavy commercial traffic. Designated routes provide the City with a means of controlling commercial vehicular traffic in order to minimize intrusion and adverse impacts on residential areas and non-truck-route arterial roads.

Fair Oaks Avenue is one of four designated truck routes in Pasadena and is the only north/south truck route that services the northwest portion of the City. The other truck routes are: Lake Avenue, Rosemead Boulevard and Walnut Street/Foothill Boulevard (from Fair Oaks Avenue to east City limit). Fair Oaks Avenue is also the only north/south truck route that extends to the southerly city limits. It is also a principal mobility corridor and is a critical route for intra and inter-city travel, including truck traffic. The Fair Oaks/Orange Grove Specific Plan takes this fact into account in its recommendation to encourage and allow land uses that will benefit from this truck route designation, such as:

- District 2 has an existing concentration of light industrial uses. Light
 industrial and related or supporting commercial uses will continue to be
 allowed in this district by the Specific Plan.
- District 3 has the closest proximity to the 210 Freeway. A wide range of commercial and certain light industrial land uses will be encouraged to take advantage of the district's proximity to the freeway that allows for delivery or distribution of goods to businesses in this area through truck deliveries.

6.7.2 Bicycle Master Plan

The City's Bicycle Master Plan was adopted in November 2000. The Bicycle Master Plan advances the Mobility Element goal of increasing the use of bicycling and walking as viable alternative modes of transportation, and provides guidelines for providing a safe and attractive environment to promote bicycling as a transportation mode and identifies the following bicycle roadways in the vicinity of the Specific Plan area:

First priority bikeways:

- Marengo Avenue (North-South direction)
- Colorado Boulevard (East-West direction)

Second priority bikeways:

- Fair Oaks Avenue
- Orange Grove Boulevard



Fair Oaks is not included in the first priority bikeway network because it has insufficient right-of-way to safely accommodate bicyclists. Nevertheless, bicycling remains a feasible mode of transportation by residents and workers in the Specific Plan area because parallel roadways are either presently equipped or are designated to be part of the first priority bikeway network.

Raymond Avenue has existing Class II bikeway between Orange Grove Boulevard and Washington Boulevard, and a Class III bikeway between Orange Grove Boulevard and Maple Street. A Class II bikeway (bike lane) is a traffic lane within the traveled roadway designated for preferential or exclusive bicycle use identified by pavement striping and marking, and signage. A Class III bikeway (bike route) is a roadway designated for bicycle use through use of directional and informational signage only, with no special lane markings, and shares the travel lane with motor vehicle traffic. The Bicycle Master Plan includes recommendations and specific measures on certain bike routes surrounding the Fair Oaks/Orange Grove Specific Plan area, such as:

Phase 1:

- Re-paint existing bike lanes throughout the City.
- Remove and replace signs at certain locations with more appropriate directions. A sign located on Maple Street at Fair Oaks Avenue needs to be replaced with a more appropriate sign that should read: "Begin Right Turn Lane; Yield to Bikes"
- Review traffic light synchronization policy to eliminate excessive speed.
- Convert Marengo (Washington to Orange Grove) to a bicycle boulevard.
- Add bike lanes on Marengo between Orange Grove and Del Mar.
- Begin conversion of traffic signal detectors to bicycle- and pedestrianfriendly forms (e.g., video).
- Install bicycle parking lockers and racks.

Phase 2:

Continue promotion and safety campaign.

Consistent with the "Livable Communities" concept that guides the Specific Plan, developing bikeways that are safe and convenient to use is an important component in encouraging alternative modes of transportation in commuting between work and home, as well as many other daily business or recreational trips.