

Section Five:

Circulation

OVERVIEW OF EXISTING CONDITIONS

There are no regional transportation facilities located within the City boundaries of Sierra Madre. The City is served by Interstate 210 Foothill Freeway located approximately one-half mile south of the City. This is controlled by the State of California Department of Transportation. The Los Angeles County Metropolitan Transportation Authority (Metro) maintains a local on-demand ridesharing service that serves Sierra Madre, Altadena, and Pasadena as well as nearby light rail service (the Sierra Madre Villa L Line Station is approximately two miles from the center of town and the Arcadia L Line Station is approximately 2.6 miles from downtown Sierra Madre). Major streets which are operated by the City include Michillinda Avenue, Santa Anita Avenue, Grandview Avenue, Sierra Madre Boulevard, and Orange Grove Avenue.

The circulation system in the City of Sierra Madre includes a network of surface streets which serve two distinct and equally important functions: access to adjacent properties, and movement of persons and goods into and out of the City. The design and operation of each street depends upon the importance placed on each of these functions. A classification system is used to identify the function of each street in the City. This system is important because it provides a logical framework for the design and operation of the street system. The functional classification system allows the residents and elected officials to identify preferred characteristics of each street.

STREET CLASSIFICATIONS

Sierra Madre has developed its own roadway classification system using four functional classification types: major street, collector street, local collector street, and local streets. Traffic volumes were measured in 2011. Due to the COVID-19 Pandemic traffic volumes and patterns in 2020 and 2021 were significantly altered, therefore conducting updated traffic counts would not provide an accurate depiction of non-pandemic conditions in the City.

Major Streets

Major streets are generally commercial arteries. They carry the majority of traffic entering or traveling through the City. A major artery would contain either four or six lanes of through traffic plus left turn lanes. Minor arterials serve the same function as major arterials, but have four lanes of through traffic and may or may not have separate left-turn lanes. Recommended design volumes on arterials range from 30,000 to 60,000 vehicles per day depending on the number of lanes and left-turn movements. Arterials serve two primary functions: to move vehicles into and through the City and to adjacent commercial land uses. Driveways and other curb cuts along arterials are generally limited to minimize disruption to traffic flow.

The only street in Sierra Madre that can be considered a Major Street is Michillinda Avenue. It runs along the western boundary of Sierra Madre and is shared by Pasadena and Sierra Madre. As Michillinda Avenue leaves Sierra Madre south of Orange Grove Avenue, it is shared by Pasadena and Arcadia. Michillinda Avenue is classified as a four lane Major Street in Sierra Madre (84'/64') and as a four lane Secondary Arterial in Arcadia (80'/60'). Currently, Michillinda Avenue has two lanes along the Sierra Madre/Pasadena segment and four lanes along the Arcadia/Pasadena segment.

Following is information regarding traffic volumes and volume/capacity ratios:

Road Segment: Michillinda	Daily Traffic	Existing Capacity	Volume/Capacity Ratio
Grandview-Sierra Madre	6,600	15,000	0.44
Sierra Madre- Orange Grove	12,900	15,000	0.86

Table V-1

Collector Streets

Collector streets are intended to carry traffic between residential neighborhoods and the arterial street network. They are generally two-lane roadways with a mixture of residential and commercial land uses. Based upon planning criteria developed by the U.S. Department of Transportation and other agencies, average daily traffic volumes on collector streets should be held below 15,000 vehicles per day in order to maintain acceptable levels of service at intersections and to preserve the ambiance of adjacent land uses. Higher density residential land uses or side yards of single family homes would be appropriately located adjacent to collector streets. Local commercial development is also appropriate for collector streets.

In Sierra Madre, only Baldwin Avenue and Sierra Madre Boulevard can be classified as Collectors. Baldwin Avenue is classified as a four-lane Collector in Sierra Madre (80'/64') and as a four-lane Secondary Arterial in Arcadia (80'/60'). These classifications are consistent although the curb-to-curb width would change by four feet at the city boundary. Currently, Baldwin Avenue has two lanes in Sierra Madre and four lanes in Arcadia.

Sierra Madre Boulevard is classified as a four-lane Collector in Sierra Madre (80'/64') and as a one-lane secondary arterial in Arcadia (80'/60') with a bike lane. These classifications are consistent although the curb-to-curb width would change by four feet at the city boundaries. Currently, Sierra Madre Boulevard has two lanes in Arcadia and Sierra Madre.

West of Michillinda Avenue, Sierra Madre Boulevard enters the City of Pasadena and widens to become a four-lane divided roadway. It is classified as a Principal Mobility Corridor in Pasadena, but as of early 2013, it is not planned to be further widened. Although the four-lanes on each side of the City boundary would be consistent, there is a median divider in Pasadena while none currently exists in Sierra Madre.

Road Segment: Baldwin Avenue	Daily Traffic	Existing Capacity	Volume/Capacity Ratio
Grandview- Sierra Madre	3,800	15,000	0.25
Sierra Madre- Orange Grove	10,500	15,000	0.70

Table V-2

Road Segment: Sierra Madre Boulevard	Daily Traffic	Existing Capacity	Volume/Capacity Ratio
Michillinda – Baldwin	8,600	15,000	0.57
East of Baldwin	3,600	15,000	0.24

Table V-3

Local Collector Streets

Local Collector streets or “feeder” streets are similar to Collectors in that they carry traffic between residential neighborhoods and the arterial network; however, they are almost solely residential in character. Feeder streets generally have single-family or multi-family residences fronting the street, and are therefore intended to carry lower volumes of traffic than collector streets, usually below 7,500 vehicles per day.

There are four Local Collectors in Sierra Madre: Lima Street, Mountain Trail Avenue, Grandview Avenue, and Orange Grove Avenue.

Grandview Avenue is two lanes (60'/40') in Sierra Madre and Arcadia. The City of Arcadia, however, has classified Grandview Avenue as a four-lane Secondary Arterial (80'/60'). There are no known plans to improve Grandview Avenue to a four-lane arterial at this time.

Orange Grove Avenue runs along the southern boundary of Sierra Madre and is shared with the City of Arcadia. It is classified as a two-lane Local Collector in Sierra Madre (60'/40') and as a two-lane Collector in Arcadia (60'/40'). Orange Grove Avenue currently has two travel lanes.

Orange Grove Avenue becomes Greenhill Road west of Michillinda Avenue in the City of Pasadena, where it continues as a two-lane Local Street.

Road Segment: Grandview Avenue	Daily Traffic	Existing Capacity	Volume/Capacity Ratio
Michillinda – Baldwin	3,000	7,500	0.40
East of Baldwin	2,700	7,500	0.36

Table V-4

Road Segment: Orange Grove	Daily Traffic	Existing Capacity	Volume/Capacity Ratio
Michillinda – Baldwin	6,100	7,500	0.81
East of Baldwin	4,600	7,500	0.61

Table V-5

No traffic counts were available for Lima Street and Mountain Trail Avenue.

Local Streets

Local streets are designed to serve adjacent residential land uses only. They allow access to residential driveways and often provide parking for the neighborhood. They are not intended to serve thru-traffic traveling from one location in the City to another, but primarily to serve traffic with an origin or destination in that street. Traffic volumes on a local street should not exceed 2,500 per day or 200-300 vehicles per hour. The maximum residential traffic volume which is acceptable to persons living along a street may vary from one street to another depending upon roadway width, type of dwelling units, presence of schools, and other factors. These factors may dictate the need for lower traffic volumes than 2,500 per day. All other public streets in Sierra Madre are local streets.

It should be noted that functional classifications vary between agencies, as seen in the different classifications seen between Arcadia and Sierra Madre for Orange Grove.

The Functional Classification system as adopted by the California Department of Transportation (Caltrans) and referenced below provides a metric under which federal highway funding may be used for repairs to Sierra Madre’s city streets. The Caltrans system supersedes the local classification system in the administration of and determination of eligibility of streets for federal roadway dollars.

Sierra Madre streets are categorized into five categories under the Caltrans classification system: Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and local streets. Under the Caltrans system, streets classified as Principal Arterials, Minor Arterials, or Major Collectors qualify for the use of federal highway funding in street maintenance. Federal funds may not be utilized on local streets. The Sierra Madre street classifications as mapped in Caltrans Functional Classification Maps 13U55 and 13V15 found in the *California Highway Systems Maps* are as follows:

Street Name	Limits		Functional Classification
	From	To	
West Sierra Madre Blvd.	Michillinda	Baldwin	Principle Arterial
East Sierra Madre Blvd.	Baldwin	City Limits	Principle Arterial
North Michillinda	Sierra Madre Blvd.	City Limits	Minor Arterial
South Michillinda	City Limits	Sierra Madre Blvd.	Minor Arterial
West Grandview Ave.	Michillinda	Baldwin Avenue	Minor Arterial
East Grandview Ave.	Baldwin Ave.	Santa Anita Ave.	Minor Arterial
Elkins Ave.	Santa Anita Ave.	City Limits	Minor Arterial
Santa Anita Ave.	Grandview Ave.	City bridge (Chantry)	Minor Arterial
North Sunnyside Ave.	Sierra Madre Blvd.	Mater Dolorosa	Major Collector

South Sunnyside Ave.	Orange Grove Ave.	Sierra Madre Blvd.	Major Collector
North Lima St.	Sierra Madre Blvd.	West Carter Ave.	Major Collector
South Lima St.	Orange Grove Ave.	Sierra Madre Blvd.	Major Collector
North Baldwin Ave.	Grandview	Carter Avenue	Major Collector
North Baldwin Ave	Sierra Madre Blvd	Grandview Ave	Minor Arterial
South Baldwin Ave.	City Limits	Sierra Madre Blvd.	Minor Arterial
North Mountain Trail	Sierra Madre Blvd.	East Mira Monte Ave.	Major Collector
South Mountain Trail	Orange Grove Ave.	Sierra Madre Blvd.	Major Collector
Auburn Ave.	Sierra Madre Blvd.	West Carter Ave.	Major Collector
West Carter Ave.	North Lima St.	North Baldwin Ave.	Major Collector
Churchill Drive	North Mountain Trail	Canyon Crest	Major Collector
Canyon Crest	Churchill Drive	Skyland Dr.	Major Collector
East Mira Monte Ave.	North Baldwin Ave.	North Mountain Trail	Major Collector
Sturtevant Drive	North Mountain Trail	Woodland Dr.	Major Collector
Woodland Drive	Sturtevant Dr.	Yucca Trail	Major Collector
Orange-Idle Hour-Skyland-Fern	Canyon Crest	Churchill	Major Collector
West Orange Grove Ave.	South Michillinda Ave.	South Baldwin Ave.	Major Collector
East Orange Grove Ave.	South Baldwin Ave.	City Limits	Major Collector
West Highland Ave.	North Michillinda Ave.	North Baldwin Ave.	Major Collector
East Highland Ave.	North Baldwin Ave.	Coburn Ave.	Major Collector

Collision Locations

According to data obtained from the Statewide Integrated Traffic Records System (SWITRS) the majority of traffic collisions occur along Sierra Madre Boulevard, Grandview Avenue and Baldwin Avenue, the three most heavily traveled streets in the City. Sierra Madre Boulevard alone accounted for 30% of the total collisions in Sierra Madre between 2015 and 2019. Over the same period the most significant causes of collisions were unsafe turn/failure to signal (25%), failure to yield (18%), unsafe backing out of a parking lot or parking space (10%), and driving while intoxicated (6%). Pedestrians were involved in 5% of collisions and bicyclists were involved in 3% of collisions.

Traffic Signals

There are no signalized intersections in the City of Sierra Madre, except at the western entry points along the border with the City of Pasadena at West Orange Grove Boulevard/South Michillinda Avenue and West Sierra Madre Boulevard/North Michillinda Avenue.

Bike Routes

The City currently has dedicated Class II bike lanes on Baldwin Avenue from Sierra Madre Boulevard to the southern City limits and Class III bike sharrows on Sierra Madre Boulevard from eastern to western city limits. The City's outdated bikeway plan has identified the need for a Class II bike lane along Sierra Madre Boulevard through the length of the City, but this lane has not been built.

Truck Routes

The following road segments are truck traffic routes for the movement of vehicles exceeding a maximum gross weight of 3 (three) tons:

- a. Michillinda Avenue from the southerly City limits

- b. northerly to Sierra Madre Boulevard;
Sierra Madre Boulevard from Michillinda Avenue easterly to Mountain Trail Avenue;
- c. Mountain Trail from Sierra Madre Boulevard northerly to Montecito Avenue;
- d. Montecito Avenue from Mountain Trail Avenue westerly to Baldwin Avenue;
- e. Baldwin Avenue from Montecito Avenue southerly to the City limits.

Transit Network

There are currently two forms of transit in operation within the City: fixed-route transit and paratransit.

Fixed-Route Transit

Within the City, there are two entities operating transit routes: Los Angeles County Metropolitan Transit Authority (Metro) and the City of Sierra Madre.

Metro Micro Altadena/Pasadena/Sierra Madre: This is an on-demand ride-sharing service that serves Sierra Madre, Altadena, and Pasadena. Rides on Metro Micro are scheduled on- demand and the pick-up/drop-off locations can be anywhere within the service area. The service area includes the entirety of all three cities which includes access to four light rail stations. Service is available seven days a week from 5:30 a.m. to 9:30 p.m.

City of Sierra Madre Gateway Coach: The City operates a fixed-route shuttle bus to serve residents during the week, Monday through Friday, except holidays. The line only operates mid-day from 11:00 am-1:30 pm, providing access to Downtown Sierra Madre, and the shopping center located at the intersection of Michillinda Avenue and Sierra Madre Boulevard. Headways are 40 minutes. Several key City locations are linked by the shuttle, including the public schools, library, City Hall, and post office. While there are defined stops with scheduled times, the shuttle will also pick up hailing residents along the route.

Paratransit

The City provides full demand-responsive transportation service through the Dial-A-Ride program. Dial-A-Ride provide same day, curb-to-curb transit to anyone who is a city resident, and is either 62 years of age or older, or disabled in a manner that makes use of regular transit unduly difficult. Any qualifying users must submit an application to the City before using the service. The service will typically not travel to destinations more than two miles outside of City limits. The relatively small size of the City makes this type of paratransit possible. The Dial-A-Ride service operates Monday through Friday during the day.

Transit Connectivity

Metro Micro Altadena/Sierra Madre/Pasadena serves the entire City including the Sierra Madre Villa L Line station. This station provides access to the regional light rail system as well as serving as a bus transit hub for the northwest San Gabriel Valley, with several bus lines from multiple jurisdictions intersecting at this location.

FUTURE TRAFFIC DEMANDS

Since the City is significantly built-out, it is not anticipated that traffic will significantly increase on City streets.

Transportation Issues

The following have been identified as primary issues:

1. Pedestrian and vehicular safety at certain locations in the City.
2. Public parking opportunities in the downtown (including East Montecito Avenue), near schools and in the Sierra Madre Canyon.
3. Street width and configurations vis-a-vis public safety and emergency evacuation situations.

SUMMARY OF CIRCULATION GOALS

1. A balanced transportation system which accommodates all modes of travel including automobiles, pedestrians, bicycles, and transit users.
2. Safe and well-maintained streets.
3. Preservation of quiet neighborhoods with limited thru traffic.

OBJECTIVES AND POLICIES

The City has established the following objectives and policies for circulation in Sierra Madre. The implementation measures are contained in the Implementation Chapter at the end of the General Plan.

Objective L51: Developing a balanced and multi-modal transportation system to serve the needs of all roadway users, including motorists, public transit patrons, pedestrians, and cyclists.

Policies:

- L51.1 Maintain the existing street classification system.
- L51.2 Limit the development of new roadways or the expansion of existing roadways.
- L51.3 Maintain existing facilities for bicyclists, pedestrians, and transit users.
- L51.4 Explore the development of new facilities for bicyclists, pedestrians and transit users.
- L51.5 Encourage and support the use of non-automotive travel throughout the City.

- L51.6 Encourage City staff, employees, residents and visitors to walk and bicycle as often as possible.
- L51.7 Utilize non-automotive transportation solutions as a tool to further goals related to environmental sustainability and economic development.
- L51.8 Prioritize improvements for non-vehicular modes like bicycles, pedestrians, and transit to eliminate the need for new or expanded roadways and intersection improvements like traffic signals.

Objective L52: Improving streets to maintain levels of service, vehicular, cyclist and pedestrian safety.

Policies:

- L52.1 Ensure that all pedestrians, particularly seniors and the disabled, are able to travel safely and easily throughout the City.
- L52.2 Prioritize opportunities to implement traffic calming techniques and limit new driveway curb cuts along roadways such as Sierra Madre Boulevard and East Montecito.
- L52.3 Provide safe travel routes for bicyclists including designated bicycle lanes on streets where these facilities can be accommodated.
- L52.4 Evaluate the impact of any capital improvement project on the travel needs of bicycles, pedestrians, and vehicle users.
- L52.5 Install and maintain mirrors on blind streets in the canyon.

- L52.6 Improve pedestrian crossing opportunities work to increase pedestrian safety, and eliminate painted crosswalks where they provide a false sense of security, and make a more concerted effort to enforce laws related to pedestrian safety.
- L52.7 Create and implement the City’s bikeway plan.
- L52.8 Require the incorporation of bicycle facilities into the design of land use plans and capital improvements, including bicycle parking within new multi-family and non-residential sites or publicly accessible bicycle parking.
- L52.9 Explore the possibility of sidewalk continuity where feasible.

Objective L53: Protecting residential neighborhoods from the intrusion of through traffic.

Policies:

- L53.1 Develop a comprehensive Citywide approach to residential street traffic calming.
- L53.2 Coordinate with law enforcement agencies to ensure adequate enforcement of speed limits along streets, including local collector and local streets.
- L53.3 Maintain and enforce speed limits which address the residential nature of local collector and local streets.
- L53.4 Install and maintain traffic calming measures where appropriate.

Objective L54: Providing off-street parking requirements, on-street parking and public parking facilities to maximize parking opportunities and address future parking needs.

Policies:

- L54.1 Maintain on-street parking in the downtown business area which is safe for motorists, pedestrians, and sidewalk diners.
- L54.2 Implement parking management approaches for portions of the City such as the downtown business area.
- L54.3 Consider opportunities for shared parking, off-site parking, and other parking management approaches to reduce excessive off-street parking for new development.

Objective L55: Enhancing the aesthetic character and safety of residential streets by addressing nighttime parking.

Policy:

- L55.1 Limit overnight parking within residential areas.

Objective L56: Maximizing accessibility for the disabled.

Policies:

- L56.1 Make streets handicap-accessible with more ramps and curb cuts.
- L56.2 Identify locations for handicap parking stalls on the street, and also install and maintain those spaces.
- L56.3 Promote usage of the Dial-A-Ride paratransit service.
- L56.4 Ensure that all streets are accessible to all persons including those with mobility challenges.

Objective L57: Transportation Environmental Evaluation.

Policies:

- L57.1 Each new project must be evaluated against the “Vehicle Miles Traveled” Baselines and Thresholds of Significance adopted June, 9~~th~~th, 2020 by the City Council.