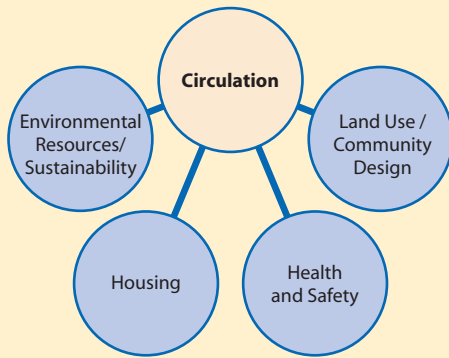


Section 4

Circulation



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INTRODUCTION

The Circulation Element supports the Plan's guiding principles of building community, mobility, and providing connectivity between neighborhoods. The intent of this element is to balance the needs of pedestrians and bicyclists with the requirements of drivers. The emphasis of this Plan on non-automotive transportation is a change from previous General Plans. In the past, the City set standards for performance of the highway system with less concern for pedestrians and bicycles. The policies of this Plan may, in some cases, lead to a reduced service level for auto traffic in order to accommodate pedestrians and bicyclists.

The transportation system for Cupertino integrates walkways, bicycle routes, transit service, local streets and freeways into a single system that supports Cupertino lifestyles. At the local level, this includes providing facilities that connect neighborhoods with pedestrian, bicycle and automobile routes. Longer distance connections are also needed to provide the links to major arterial routes and the regional freeway system.

The Circulation Element briefly describes the existing transportation system and local travel characteristics. Non-motorized transportation modes are studied and described in terms of alternatives to the automobile. Projections of future traffic volumes based on the build out of the land uses described in the Land Use Element are studied to ensure that traffic congestion will not increase significantly.



Policies and implementation programs in this chapter provide a guide for decisions regarding the circulation system improvements needed to accommodate Cupertino's anticipated growth. In addition, this chapter takes into account the traffic impact of anticipated regional development and the roadway improvements adopted by regional agencies such as the Santa Clara Valley Transportation Agency (VTA) and Metropolitan Transportation Commission (MTC).

The Circulation Element is based on several underlying themes and findings summarized below:

- Single-passenger automobiles have strained the inter-city transportation system. The State Route (SR) 85 and Interstate Route 280 (I-280) freeways are at or near to capacity during commute hours. This situation will only worsen unless more people use transportation alternatives, such as bus and rail transit, bicycling, ridesharing, walking and telecommuting. It is essential when approving new development to ensure that future growth does not overwhelm the transportation system.
- Land use and transportation are inextricably connected. Future development and circulation must be coordinated so that they will be in balance. The land use and transportation policies in this Plan reflect this relationship.
- The need to provide efficient roadways for automobiles will be balanced with the need to provide pedestrian and bicycle friendly roadways and streetscapes.
- Transportation facilities should be accessible to all sectors of the commu-

nity including seniors, children, the disabled, persons with low-income, and persons who depend on public transportation. City streets should be available to all to drive, park, bicycle and walk, where safe and in accord with traffic regulations.

- The provision of efficient routes for transit service, emergency and other service vehicles continues to be a high priority for the City.
- The design of the transportation system should incorporate aesthetic values that complement the surrounding land uses.
- Future improvements to the circulation system must be consistent with and support the other goals and policies of the General Plan.
- Traffic is both a local and a regional issue. Effective improvements to the circulation system depend on the multi-jurisdictional cooperative effort of multiple agencies such as the State of California (Caltrans), the Metropolitan Transportation Commission (MTC), Santa Clara Valley Transportation Authority (VTA), adjacent cities and counties, and other public transit districts.

REGIONAL TRANSPORTATION PLANNING

Cupertino's transportation cannot be planned without reference to the regional and sub-regional planning that is conducted by others such as the VTA, MTC and Caltrans.

The City participates with the VTA on the State mandated countywide Congestion



Management Plan (CMP). Longer range planning is provided in the VTA's Valley Transportation Plan 2020 (VTP 2020). The VTP 2020 includes the following projects or programs for Cupertino:

- The Mary Avenue Bicycle-Pedestrian Footbridge over I-280.
- The De Anza Trail on the Union Pacific Railroad right-of-way Phase III.
- The study of the Bus Rapid Transit (BRT) on Stevens Creek Boulevard.
- The study of Light Rail Transit (LRT) in the Sunnyvale/Cupertino Corridor.
- The one major freeway improvement in the plan for Cupertino is an improved ramp to connect SR 85 and I-280 with Foothill Boulevard.

The regional projects are shown on Figure 4-A.

With the exception of the Mary Avenue bicycle-pedestrian footbridge, the above projects are considered part of a ten-year funding plan. The City should work with the VTA to secure funding for each of the regional projects.

Regional land use decisions affect the operation of the freeway system in Cupertino. Regional transportation facilities such as SR 85 and I-280 currently operate with considerable congestion in peak traffic hours. This is due in part to a number of factors: more dependence on the automobile, suburban sprawl, few mass transportation alternatives, the regional imbalance of jobs and housing in Santa Clara County, etc. This Plan, as well as planning by the county and regional agencies, advocates strategies to mitigate

some of these negative factors .

The Light Rail network for Santa Clara County was conceived as a traditional spoke-and-wheel network with the spokes radiating out from downtown San Jose and wheel arcs ringing the Valley. Many portions of the spokes and wheel arcs have been completed or are in the planning stages. The West Valley portion of the County is planned to be served by the Vasona Corridor leading to Campbell and eventually Los Gatos. There are no immediate funding sources or definitive plans for either light rail or express buses to serve Cupertino, Saratoga, Los Altos, west San Jose and the southern portion of Sunnyvale.

There are four possible routes for mass transit to serve this portion of the County including the Highway 85 median and the Union Pacific Rail Right of Way connecting to the Vasona Corridor at Vasona Junction in Los Gatos; Stevens Creek Boulevard through San Jose and connecting to De Anza College at Highway 85; and De Anza Boulevard connecting to the Stevens Creek line and extending into Downtown Sunnyvale. Cupertino must advocate policies that ensure that Cupertino residents, the major Cupertino corporations and De Anza, West Valley and possibly Foothill Colleges are served by mass transit within the next 20 years.



REGIONAL TRANSPORTATION PLANNING DECISIONS THAT SUPPORT AND COMPLEMENT THE NEEDS OF CUPERTINO

Policy 4-1: City Participation in Regional Transportation Planning

Participate actively in developing



VTA 2020 Projects

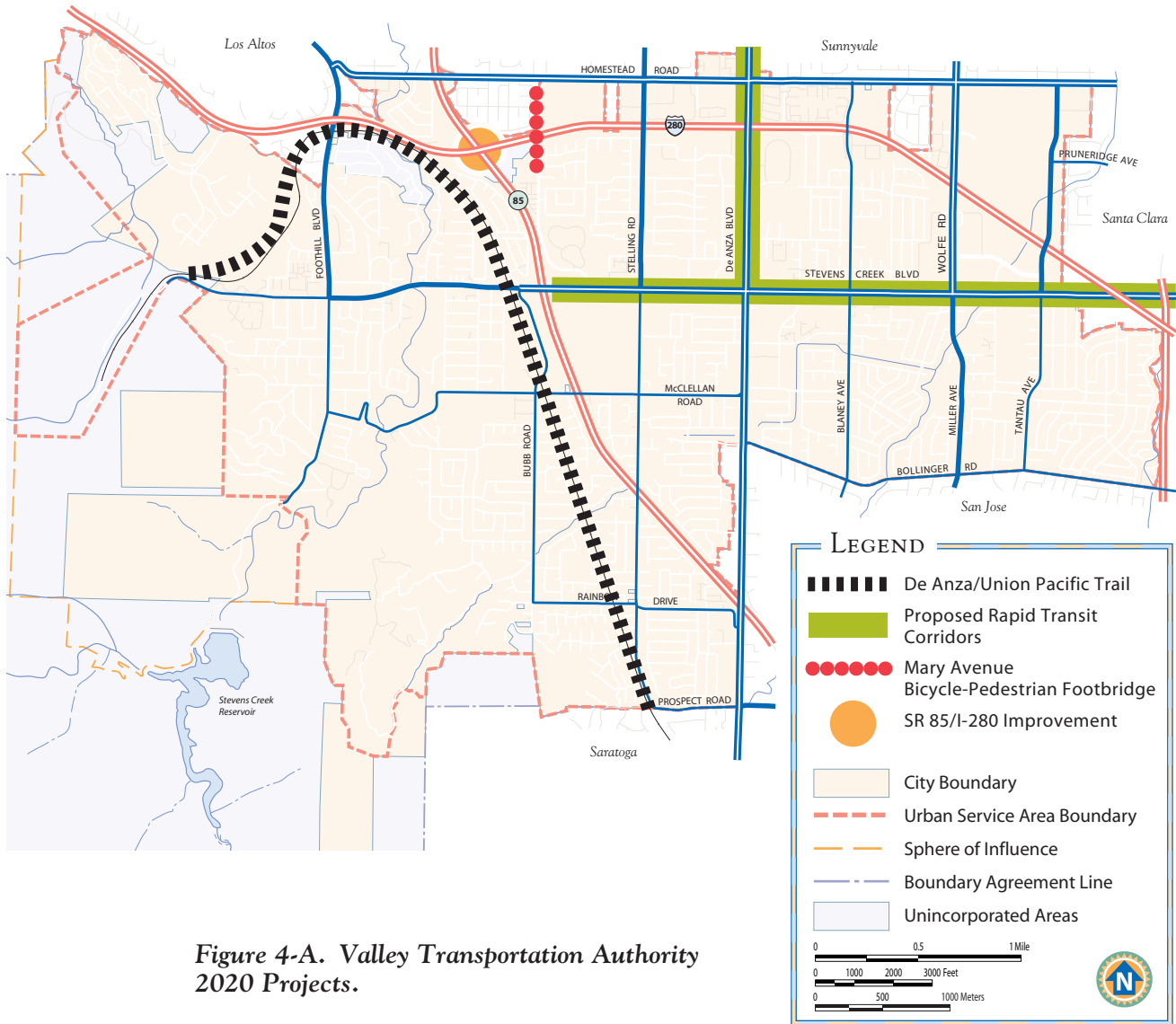


Figure 4-A. Valley Transportation Authority 2020 Projects.

regional approaches to meeting the transportation needs of the residents of the Santa Clara Valley. Work closely with neighboring jurisdictions and agencies responsible for roadways, transit facilities and transit services in Cupertino.

Strategies

1. **Regional Transportation Planning.** Participate in regional transportation planning in order to minimize adverse impacts on Cupertino’s circulation system. Work with all regional transpor-



tation agencies to develop programs consistent with the goals and policies of Cupertino's General Plan. Work with neighboring cities to address regional transportation and land use issues of mutual interest.

2. **Jobs–Housing Balance.** Minimize regional traffic impacts on Cupertino by supporting regional planning programs to manage the jobs-housing balance throughout Santa Clara County and the Silicon Valley.
3. **Interchange Improvements.** Identify potential interchange improvements, such as I-280 with the Lawrence Expressway and Stevens Creek Boulevard, that would encourage the use of the freeway and reduce the use of local streets.
4. **Congestion Management Plan (CMP).** Actively participate in the preparation of the CMP and other regional efforts to control traffic congestion and limit air pollution.
5. **Traffic Impact Analysis (TIA).** Require TIA reports that meet the requirements of the VTA for all developments projected to generate more than 100 trips in the morning or afternoon peak hour.
6. **Multi-modal Transportation.** Ensure that connections are provided to enable travelers to transition from one mode of transportation to another, e.g., bicycle to bus.
7. **Regional Bus and Rapid Transit Service.** Support the expansion of the VTA's regional bus transit system and extension of bus and/or light rail rapid

transit into the Stevens Creek and De Anza Corridors to fulfill the “spoke and wheel” transit system designed to serve all of Santa Clara County. Specific actions to implement this strategy are:

- Review all right-of-way improvement projects for potential opportunities and constraints to rapid transit development.
- Encourage higher density and mixed-use development in rapid transit corridors and ensure developments are designed to enhance the use of transit.
- Seek the cooperative support of residents, property owners and businesses in planning rapid transit extensions.
- Actively seek to have Cupertino represent West Valley cities and ultimately chair the VTA Board of Directors to promote the above policy.

ENCOURAGING ALTERNATIVES TO THE AUTOMOBILE

Alternatives to the automobile contribute to energy conservation, reduce air and water pollution and the cost of building and maintaining additional highways and roads. Ideally, sufficient alternative means of transportation should exist so that use of the automobile is a choice, not a necessity. Alternatives include public transit, carpools, flexible work hours, bicycling, walking and telecommuting. These alternative forms of transportation must be coordinated with land use patterns that support them.





INCREASED USE OF PUBLIC TRANSIT, CARPOOLS, BICYCLING, WALKING AND TELECOMMUTING

Measures to manage travel demand, called Transportation Systems Management (TSM), are directed at reducing the number of single-occupant vehicles (SOVs) using the circulation system during peak hour commute periods. SOV trips represent about half of all the daily trips generated in Cupertino.

► **Policy 4-2: Reduced Reliance on the Use of Single-Occupant Vehicles**

Promote a general decrease in reliance on private, mostly single-occupant vehicles (SOV) by encouraging attractive alternatives.

Strategies

1. **Alternatives to the SOV.** Encourage the use of alternatives to the SOV including increased car-pooling, use of public transit, bicycling and walking.
2. **TSM Programs.** Encourage TSM programs for employees in both the public and private sectors by including preferred parking for carpools, providing bus passes, encouraging compressed workweeks, and providing incentives and rewards for bicycling and walking.
3. **Telecommuting, Teleconferencing and Other Electronic Communication.** Encourage employers to use the internet to reduce commute travel. Encourage schools, particularly at the college and high school levels, to make maximum use of the internet to limit the need to travel to and from the campus.

4. **Design of New Developments.** Encourage new commercial developments to provide shared office facilities, cafeterias, day-care facilities, lunchrooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling, walking or telecommuting as commute modes to work. Provide pedestrian pathways and orient buildings to the street to encourage pedestrian activity.
5. **Street Space for Alternative Transportation.** Provide space on appropriate streets for bus turnouts, or safe and accessible bike lanes or pedestrian paths.
6. **Alternative Transportation Information.** Use the Cupertino Scene and other media to provide educational material on alternatives to the SOV.
7. **Citizen Participation.** Continue to work with the City Bicycle/Pedestrian Advisory Committee, community groups and residents to eliminate hazards and barriers to bicycle and pedestrian transportation.

PEDESTRIANS AND BICYCLES

Cupertino is an auto-oriented, suburban city developed during the 1950s and 1960s. Local streets provide limited service to other transportation modes. As would be expected in a City designed with the auto in mind, walking and bicycle riding currently represent just 7% of all trips generated in Cupertino.

The land use policies of this Plan are intended to locate trip generators and attractors closer together and thus promote walking and bicycle use. In addition, the weather



and terrain make Cupertino an ideal location to develop pedestrian and bicycle modes of transportation.



A COMPREHENSIVE NETWORK OF PEDESTRIAN AND BICYCLE ROUTES AND FACILITIES

Policy 4-3: Cupertino Pedestrian Transportation Guidelines and the Cupertino Bicycle Transportation Plan.

Implement the programs and projects recommended in the Cupertino Pedestrian Transportation Guidelines and in the Cupertino Bicycle Transportation Plan, as well as other programs that promote this goal.

Strategies

1. **The Pedestrian Guidelines.** Implement the projects recommended in the Pedestrian Guidelines including:
 - After engineering review, and where found to be feasible, improve safety at selected intersections by one or more of the following: prohibit right-turn-on-red, add time to the pedestrian signal phase, construct a median and/or reduce corner radii.
 - Where feasible provide missing sidewalks on arterial and collector streets and on neighborhood streets as desired by residents.
 - Identify a citywide pedestrian circulation grid including shortcuts, pathways and bridges, where needed, to close gaps in the pedestrian circulation system.
2. **Pedestrian Grid.** Consider developing a quarter-mile grid of safe, walk-able sidewalks and paths to provide pedestrian access among residential, shopping, recreation and business locations.
3. **Safe Routes to School.** Work with the School Districts to promote the Safe Route to Schools program.
4. **Pedestrian Time on Traffic Signals.** With engineering review, provide additional time for pedestrians to cross streets at appropriate intersections. Added time would be most appropriate near shopping districts, schools and senior citizen developments. This strategy should be considered even if it could reduce the Level of Service (LOS) for automobile traffic.
5. **Pedestrian Improvements.** To enhance walking, consider various improvements to roadways to make them more pedestrian friendly and less auto-centric. Where a median is provided, it should



Bikeways

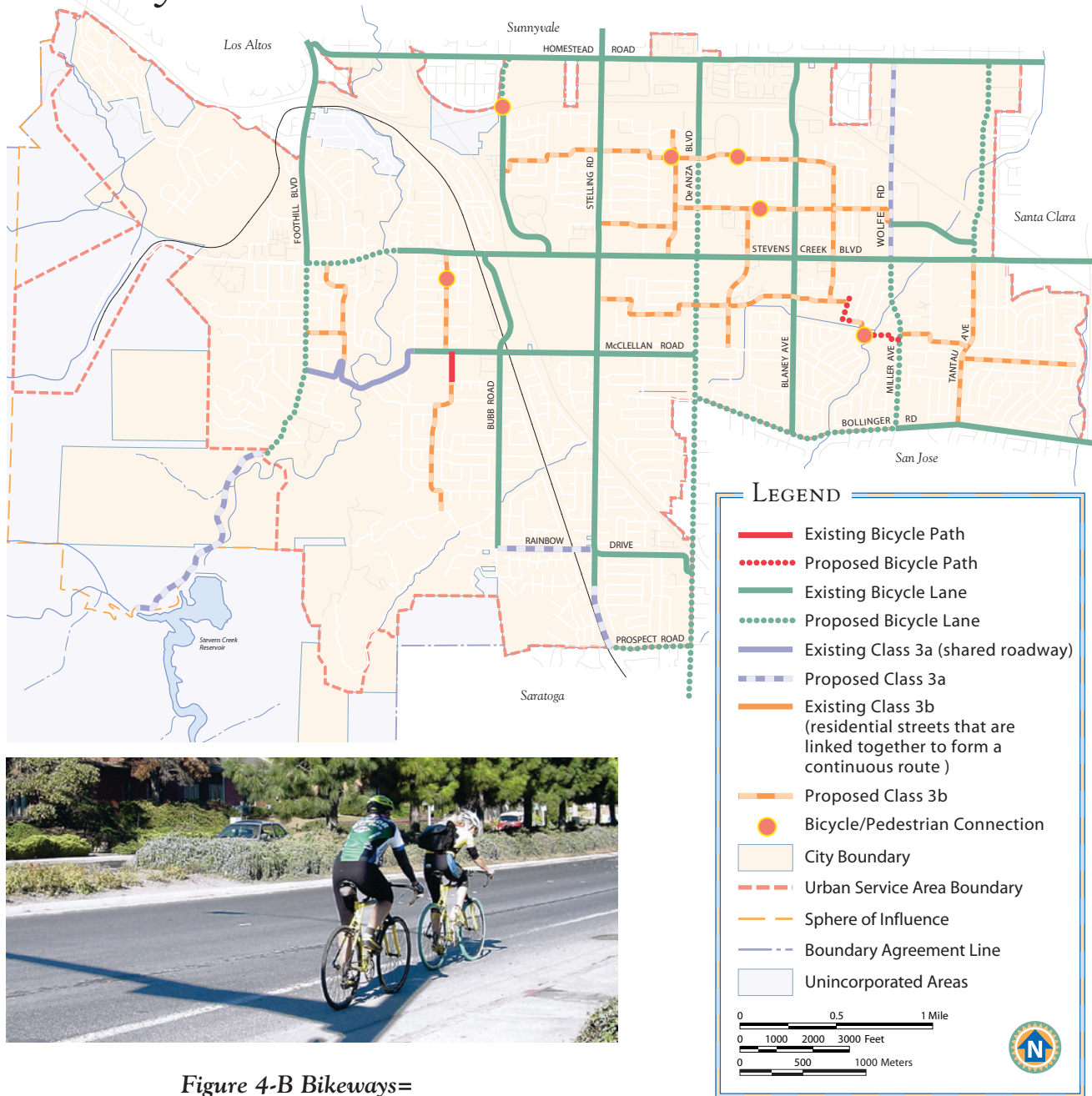


Figure 4-B Bikeways=

be wide enough to safely accommodate pedestrians. Streets such as Homestead, Bollinger, Rainbow, Prospect or Stelling should be evaluated for potential

improvements for pedestrians. Working with the neighborhood, consider reducing residential street widths to promote slower traffic and less pervious surface.



6. **Crosswalk Marking, Medians, and “Chokers.”** Following engineering review, mark crosswalks with pavement treatment scaled to the speed of traffic. Use medians and “chokers” to narrow the width of the street where feasible and appropriate.
7. **Pedestrian/Bicycle Impact Statement (PBIS).** Encourage all public construction and private development projects to submit a PBIS. For projects that require a TIA, the PBIS may be incorporated into the TIA. The impact of the project on pedestrians and bicycles shall be reported in terms of safety, route connectivity, loss of existing facilities, adequacy of proposed facilities, and potential adverse impact of proposed pedestrian/bicycle programs on automobile traffic and vice versa.
8. **Implementation of the Bicycle Plan.** Implement the Bikeway Network as recommended in the Bicycle Plan. The Network is shown in Figure 4-B.
9. **Bicycle Facilities in New Developments.** Encourage the developers of major new or remodeled buildings to include secure interior and/or fully weather protected bicycle parking.
10. **Traffic Calming on Bicycle Routes.** Where feasible and appropriate, implement traffic calming on those bicycle routes where automobile traffic volumes are low. Bicycle traffic flows best where automobile traffic volume and speeds are low and where there are no stop signs or traffic signals to hinder through traffic flow.
11. **Bicycle Parking.** Provide bicycle park-

ing in multi-family residential developments and in commercial districts as required under Section 19.100.040 of the City code.

► **Policy 4-4: Regional Trail Development**

Continue to plan and provide for a comprehensive system of trails and pathways consistent with regional systems, including the Bay Trail, Stevens Creek Corridor and Ridge Trail. The General Alignment of the Bay Trail, as shown in the Association of Bay Area Governments’ Bay Trail planning document, is incorporated in the General Plan by reference.



PUBLIC TRANSIT

The City of Cupertino does not operate any public transit services. The VTA operates nine regular and three express bus routes serving 128 bus stops in Cupertino. The Stevens Creek Corridor is served at 15-minute headways on weekdays and 30 minute headways in the evening and weekends. Most other arteri-



als are served at 20 to 30 minute headways on weekdays. There is service on most routes into evening hours and on weekends, typically at 30-to 60-minute headways.

There are two important transit transfer points in Cupertino—De Anza College and Vallco Park. The VTA plans to build a full-service transit station at the College. Transfers at Vallco are currently made on the street and are, therefore, not as convenient or desirable.

Ridership on VTA buses in Cupertino is about 3,500 patrons per weekday. Transit ridership, including the use of the VTA and school buses, represents about 1.5% of total trips generated on a weekday in Cupertino.



INCREASED USE OF EXISTING PUBLIC TRANSIT SERVICE AND THE DEVELOPMENT OF NEW RAPID TRANSIT SERVICE

► **Policy 4-5: Increased Use of Public Transit**

Support and encourage the increased use of public transit.

Strategies

1. **Transit Facilities in New Developments.** Ensure all new development projects include amenities to support public transit such as: bus stop shelters; space for transit vehicles to stop and maneuver as needed; transit maps and schedules. Encourage commercial and institutional developments to support bus passes for employees.
3. **Transit Stop Amenities.** Work with the VTA and adjacent property owners to

provide attractive amenities such as seating, lighting and signage at all bus stops.

4. **Vallco Park Transit Station.** Work with the VTA to study and develop a transit transfer station at Vallco Park. Anticipate a multi-modal station that serves future light rail.
5. **Rapid Transit.** Work with the VTA to plan for and develop bus and/or light rail rapid transit services in the Stevens Creek and north De Anza Corridors to take advantage of the potential increase in mixed-use activities in the De Anza College customer base. Consider increased frequency of service to encourage ridership.
6. **Shuttle Service.** Study the possibility of providing shuttle service to key commercial, office and institutional locations in Cupertino.

ROADWAYS

Most trips in Cupertino, nearly 92% of all trips, are made by private vehicle on the public street and highway system. The Cupertino system of major streets is shown in Figure 4-C. Local and residential streets are not shown. The major street system includes:

- State freeways SR 85 and I-280.
- Arterials such as De Anza and Stevens Creek Boulevards and Homestead and Wolfe Roads.
- Major collectors such as Foothill Boulevard and Stelling Road north of Stevens Creek Boulevard, Prospect Road east of De Anza, and Miller Avenue.



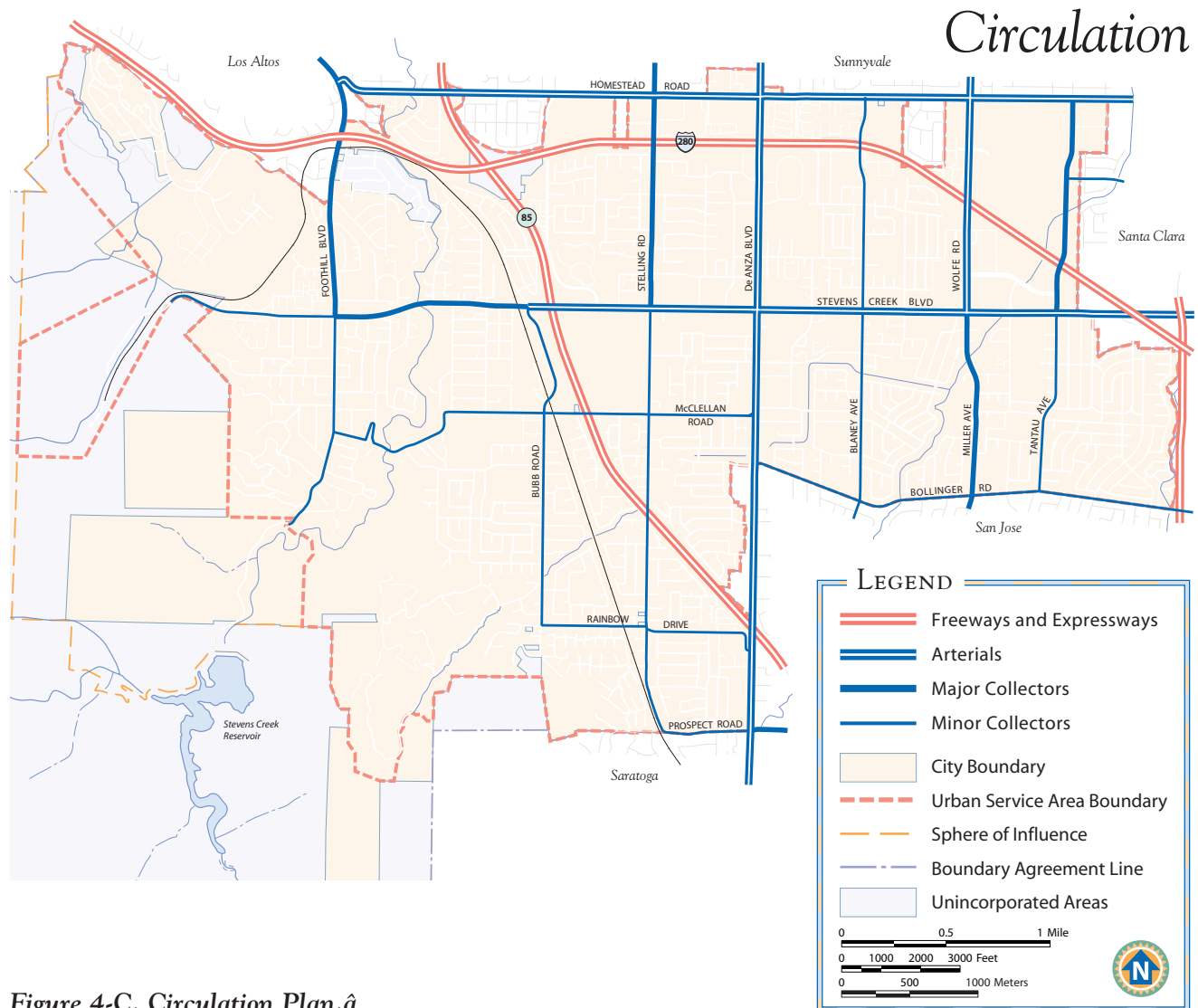


Figure 4-C. Circulation Plan.â

- Minor collectors such as the remainder of Foothill and Stelling along with Bubb, Blaney, Tantau, McClellan, Bollinger and Rainbow.

The quality of the operation of the street system is measured using a system known as Level of Service (LOS). Traffic engineers and planners use level of service grades to evaluate the relative congestion of roads and highways. The LOS for roadways is a scale that measures the amount of traffic a roadway or an intersection may be capable

of handling. Level of service “A” represents free flow conditions and level of service “F” represents jammed conditions with excessive delay for motorists. The definition of LOS is shown in Table 4-1.

It is the intent of this Plan that most streets should operate with no more than a tolerable level of congestion, LOS D. Exceptions to this standard in the Crossroads and at other locations to ensure pedestrians are well served at intersections are discussed below.



Table 4-1. Level Of Service Definitions For Signalized Intersections.

Level of Service	Vehicle Delay (Seconds)	Description
A	0 - 5.0	Free flow, no congestion (very little delay)
B	5.1 - 15.0	Stable flow, limited congestion (slight delay)
C	15.1 - 25.0	Stable flow, moderate congestion (acceptable delay)
D	25.1 - 40.0	Approaching unstable flow, high congestion (tolerable delay)
E	40.1 - 60.0	Unstable flow, near breakdown (typically unacceptable delay)
F	>60.0	Forced flow, breakdown (excessive delay)

The concept of maintaining no worse than a tolerable level of congestion is important, not only to provide a reasonable LOS for motorists, but also to protect neighborhoods from the impact of excessive through traffic. To the extent that the arterial and major collector street system is operating with limited congestion, there will be less incentive for drivers to use local streets to bypass areas of congestion.

Cupertino uses a computerized traffic signal interconnect system to increase the traffic carrying capacity of arterial streets. The system controls the flow at intersections to favor commute traffic. Green lights are longer on major streets to encourage shoppers, commuters and workers to use those streets.

These policies encourage drivers to use the arterial street system. Cupertino discourages motorists from other cities from using local streets, and, where appropriate, from using collector streets, by means of stop signs, speed humps, raised medians, diverters and intensified enforcement of speed limits.



ROADWAY DESIGN THAT ACCOUNTS FOR THE NEEDS OF MOTORISTS, PEDESTRIANS, BICYCLES AND ADJACENT LAND USE

► Policy 4-6: Traffic Service and Land Use Development

Maintain a minimum LOS D for major intersections during the morning and afternoon peak traffic hours. Achieve this standard by imposing reasonable limits on land use to ensure that principal thoroughfares are not unduly impacted by locally generated traffic at peak traffic hour.

In order to accommodate development that furthers a unique gathering place in the Crossroads area on Stevens Creek Boulevard, set the LOS standard for the intersections of Stevens Creek Boulevard with De Anza Boulevard and with Stelling Road to LOS E+. (No more than an average 45 seconds of delay per vehicle). The standard for the intersection of De Anza Boulevard at Bollinger Road shall also be LOS E+.





LOS standards may also be adjusted as described in Policy 4-8.

Strategies

1. **Street Width Limitation.** To minimize the barrier effect and the negative aesthetics of major streets, limit the mid-block width of De Anza Boulevard to eight lanes
2. **Synchronization of Traffic Signals.** Enhance the synchronization of traffic signals on major streets.
3. **Allocation of Non-residential Development.** In order to maintain a desired level of transportation system capacity, the city's remaining non-residential development potential shall be pooled and reallocated according to the city's development priority tables as shown in the Land Use Element of this Plan.
4. **Citywide Transportation Improvement Plan.** Carry out a citywide transportation improvement plan to accommodate peak hour traffic flows on arterial streets and major collector streets at a minimum of LOS D. If feasible, the Plan should maintain the LOS higher than level D. However, as described above, exceptions
5. **Annual LOS Analysis.** Conduct a LOS analysis, consistent with the reporting requirements of the VTA, to be completed at the time of the annual General Plan review.
6. **Intersection Capacity Improvements.** Make capacity improvements as needed to maintain Level of Service policies. (DeAnza Boulevard and Homestead Road and Stelling Road at McClellan Road.)
7. **Enhanced Level of Service.** Strive to enhance the intersection Levels of Service where feasible.

Policy 4-7: Traffic Service and Pedestrians Needs

Balance the needs of pedestrians with desired traffic service. Where necessary and appropriate, allow a lowered LOS standard to better accommodate pedestrians on major streets and at specific intersections.



Strategy:

Traffic Signal Walk Times. This strategy is described in Policy 4-3. Added time on walk signs would be most appropriate near shopping districts, schools and senior citizen developments.

► Policy 4-8: Roadway Plans that Complement the Needs of Adjacent Land Use

Design roadways based on efficient alignments, appropriate number and widths of traffic lanes, inclusion of medians, parking and bicycle lanes and the suitable width and location of sidewalks as needed to support the adjacent properties.

In addition, design the local streets to satisfy the aesthetic requirements of the area served. In general, the aesthetics of a street will be improved if it can be narrower rather than wider, include significant landscaping with shade trees, and provide safe and convenient places for people to bicycle and walk. Details of design, such as provision of vertical curbs and minimum corner radii, are to be considered desirable. Design details should be developed in the City's road improvement standards.

Strategies

- 1. Road Improvement Standards.** Develop the City's road improvement standards to include consideration of service to traffic, bicycles and pedestrians, as well as the embodiment of aesthetically pleasing design features, like trees. Improvement standards shall also consider the urban, suburban and rural environments found within the City.

- 2. Rural Road Improvement Standards.** Identify candidate rural roads and develop specific street improvement standards that preserve the rural character of these streets. Rural roads would typically feature natural landscaping, no sidewalks and narrow unpaved shoulders.
- 3. Semi-Rural Road Improvement Standards.** Identify candidate semi-rural roads where curb and gutter improvements, and no sidewalks, are appropriate.
- 4. Urban Road Improvement Standards.** Develop urban improvement standards for arterials such as Stevens Creek and De Anza Boulevards. In these areas, standards may include wide sidewalks with appropriate street furniture.
- 5. Suburban Road Improvement Standards.** Develop suburban road improvement standards for all streets not designated as rural, semi-rural nor in the Crossroads Area.
- 6. Intersection Design.** Survey intersections to ensure that the roadway alignments are as efficient as possible. Where feasible and appropriate, redesign and rebuild those intersections where improvements would upgrade traffic flow and pedestrian and bicycle convenience and safety.

Too many driveways may impede traffic flow on busy streets because drivers can indiscriminately enter the travel lanes at multiple locations. Landscaping themes along the street frontage maintain a stronger visual continuity with fewer curb cuts while also improving service for bicyclists and pedestrians.



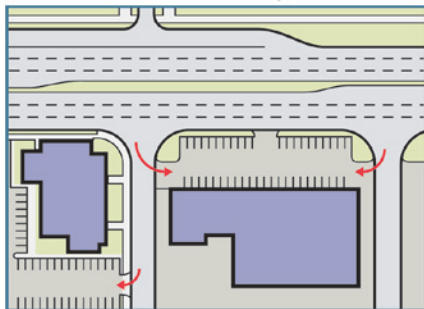
► **Policy 4-9: Curb Cuts**

Minimize the number of driveway openings in each development.

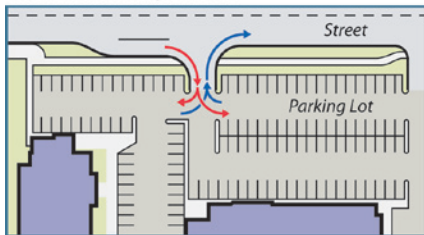
Strategies

1. **Shared Driveway Access.** Encourage property owners to use shared driveway access and interconnected roads on specific properties where feasible. Require driveway access closures, consolidations or both when a non-residential site is remodeled. Ensure that the driveway accommodates the traffic volume for all affected properties, and that the maintenance responsibilities are clearly defined.
2. **Direct Access from Secondary Streets.** Encourage property with frontages on major and secondary streets to provide direct access to driveways from the secondary street.
3. **Temporary Curb Cuts On Non-Residential Sites.** Permit temporary curb cuts on a non-residential site subject to the City finding that the open-

Direct Access from Secondary Streets



Shared Driveway Access



ing is necessary for public safety. These temporary openings may be closed and access to the driveway made available from other driveways when surrounding properties are developed or redeveloped.

► **Policy 4-10: Street Improvement Planning**

Plan street improvements such as curb cuts, sidewalks, bus stop turnouts, bus shelters, light poles, benches and trash containers as an integral part of a project to ensure an enhanced streetscape and the safe movement of people and vehicles with the least possible disruption to the streetscape.

Strategies

1. **Sidewalk Access to Parking or Buildings.** Examine sidewalk to parking areas or building frontages at the time individual sites develop to regulate the entry to the site at a central point. Sidewalks in the Crossroads Area shall be wide enough to accommodate increased pedestrian activity.
2. **Bus Stop Turnouts in Street Frontages.** Require bus stop turnouts, or partial turnouts, within the street frontage of a new or redeveloping site. This policy does not apply to the Crossroads Area. Bus stops should include benches, trash receptacles and other amenities as appropriate. Follow the VTA specifications for improving bus stops.

► **Policy 4-11: Safe Parking Lots**

Require parking lots that are safe for pedestrians.

Strategy

Safe Spaces for Pedestrians. Require parking lot design and construction to



include clearly defined spaces for pedestrians so that foot traffic is separated from the hazards of car traffic and people are directed from their cars to building entries.

NEIGHBORHOOD PROTECTION

Through traffic tends to take the route of least resistance, often resulting in a high through volume of traffic along residential streets located adjacent to busy traffic corridors. Through traffic on local streets should be discouraged to protect the quality of life and safety of residential neighborhoods.

Neighborhood traffic management is based on the concept that commute or through traffic should be redirected from local residential and minor collector streets and onto major arterials, expressways or freeways. Neighborhood traffic management programs may include any of the traffic calming measures listed below.



A TRANSPORTATION SYSTEM THAT HAS MINIMAL ADVERSE IMPACT ON RESIDENTIAL NEIGHBORHOODS

► **Policy 4-12: Good Traffic Service on Major Streets**

Encourage through traffic to use the major arterial and collector streets by maintaining the highest service possible on the arterial street system.

► **Policy 4-13: Traffic Calming on Local Streets**

Install traffic calming measures where appropriate to reduce traffic impacts and enhance walkability.



Traffic calming measure

Strategies

1. **Traffic Calming Measures.** After engineering study, implement appropriate traffic calming measures and/or improvements on a case-by-case basis, based on approval of 66% of the residents on the street and involving public hearings, to slow or discourage through traffic in neighborhoods. Require new development to implement traffic calming measures if impacts are generated by the development.
2. **Design of Traffic Calming Measures.** Consider the importance of attractive designs for traffic calming installations. Develop written design standards for each type of measure.
3. **Neighborhood Traffic Management Plans.** Develop traffic management plans for local residential streets affected by unacceptable levels of through traffic. Plans may include the traffic calming measures, including medians and street trees, and also include education and enforcement measures that promote changes in driver behavior.



- 4. Use VTA Pedestrian Technical guidelines in street design, traffic calming and pedestrian crossings.

▶ Policy 4-14: Limited Street Closures

Do not close streets unless there is a demonstrated safety or over-whelming through traffic problem and there are no acceptable alternatives. Closures may shift traffic to other local streets, thus moving the problem from one neighborhood to another.

▶ Policy 4-15: School Impacts on Neighborhoods

Minimize the impact of school drop-off, pick-up and parking on neighborhoods.

Strategy

Coordination with School Districts. Work with the School Districts to develop plans and programs that encourage car/van-pooling, stagger hours of adjacent schools, drop-off locations, encourage walking and bicycling to school. Assist Districts in the development of the “Safe Routes to School Program” to encourage more students walking and bicycling and less use of auto access.

▶ Policy 4-16: Transportation Noise, Fumes and Hazards

In addition to limiting through traffic volume on local streets, protect the community from noise, fumes and hazards caused by the City’s transportation system. The quarries on Stevens Canyon Road, Stevens Creek Boulevard and Foothill Boulevard are major sources of transportation noise.

Strategies

1. **Quarry Use Permit.** Monitor the quarries’ use permit conditions imposed by the County of Santa Clara and oppose any expansion of quarry uses.
2. **Quarry Truck Speed.** Prioritize enforcement of traffic speeds on Stevens Canyon, Stevens Creek and Foothill Boulevards. Install radar speed monitors.
3. **Community Protection.** Work to protect the community from the effects of the transportation system. Discourage dangerous and abusive driving by priority enforcement of speed laws, enforcement of State muffler laws (see the Noise element of this Plan) and review of traffic management strategies.



1
SEE POLICIES 6-55 TO 6-57 IN HEALTH AND SAFETY FOR ADDITIONAL TRUCK TRAFFIC POLICIES T

TRAFFIC PROJECTIONS

The City uses the VTA maintained CMP model to project traffic on the freeway and on local streets. The CMP model has about 18,500 highway and transit links, and 385 internal zones to represent Santa Clara County. The land use projections for Cupertino in 2020 have been developed by the city planning staff. The land use data for areas outside Cupertino are based on ABAG Projections. The model is calibrated by comparing its estimate of traffic flow in 2000 against traffic counts conducted on the city street system. When the model closely replicates existing traffic, it is used to project traffic volumes for the year 2020.

FUTURE YEAR TRAFFIC CONDITIONS

As shown in Table 4-2, the traffic volumes projected using the CMP model for the year 2020 would result in some increased levels of congestion. However, assuming roadway capac-



ity improvements were provided at the intersections of De Anza Boulevard at Homestead Road and Stelling Road at McClellan Road, the 2020

LOS for major intersections would meet the standards set in this Plan and the standards as required by the CMP.

Table 4-2. Level Of Service At Signalized Intersections.

Intersection	Existing 2000		Projected 2020	
	Morning	Afternoon	Morning	Afternoon
Wolfe Road at Homestead Road	C	C-	D	D+
at I-280 Northbound Ramps	A	A	B+	A
at I-280 Southbound Ramps	B	A	B	A
at Stevens Creek Boulevard	C	C	C	C
Miller Avenue at Bollinger Road	C	D	C	D-
De Anza Boulevard at Prospect Road	C	C-	C-	D+
at Rainbow Drive	B	B+	B-	A
at SR 85 Southbound Ramps	C+	C	D+	C
at SR 85 Northbound Ramps	C+	C+	C-	B-
at Bollinger Road	C	C+	D	B-
at McClellan Road	C+	C-	C	D+
at Stevens Creek Boulevard	C-	D+	D+	D
at I-280 Southbound Ramps	C	C	C	C
at I-280 Northbound Ramps	C	C	D	C
at Homestead Road	D	C	D	D
Stelling Road at Rainbow Drive	B	B	C	B
at McClellan Road	C	C-	D	D+
at Stevens Creek Boulevard	C-	C	D+	D+
at Homestead Road	D+	D+	D	D
Stevens Creek Blvd at SR 85 Northbound Ramps	C	B-	C+	B-
at SR 85 Southbound Ramps	B-	B-	C	C



