

**Draft RTC**  
**Consideration of Bordeaux Drive Street Space Allocation Study**

Please find enclosed a draft staff report prepared for Council consideration with regard to the possibility of establishing bike lanes on Bordeaux Drive between Moffett Park Drive and Java Drive. This timely staff report is due to the fact that the subject segment of Bordeaux Drive is currently scheduled for re-paving in April 2010. This street segment presently has one vehicular travel lane in each direction, parking on both sides of the street and no sidewalks. Consistent with the approved Street Space Allocation policy, staff has conducted technical analysis of options that meet the minimum design standards for motor vehicles, bicycles and pedestrians which are described in the enclosed Draft RTC. The BPAC members could accept, revise, or reject some or all of the alternatives listed on Page 4 of the Draft RTC.





**DRAFT for Bicycle and Pedestrian Advisory Commission  
Review, April 15, 2010**

**Council Meeting: TBD, 2010**

**SUBJECT: Consideration of Bordeaux Drive Street Space Allocation Study**

**BACKGROUND**

A segment of Bordeaux Drive from Moffett Park Drive to Java Drive (location map, Attachment A) is scheduled for re-paving in April, 2010. This section of the road currently features a single lane in each direction and parking on both sides of the street. Bordeaux Drive is planned for consideration of bike lanes as part of the City's Bicycle Capital Improvement Program. The pending re-paving and associated replacement of roadway striping provides an opportunity for installation of bike lanes. Consistent with the City's street space allocation policies, staff has conducted a technical analysis of options to meet minimum design standards for motor vehicles, bicycles and pedestrians. Staff has also conducted public outreach. Staff is presenting this information to Council in order for Council to consider whether to change the existing accommodations as part of the pending paving project.

**DISCUSSION**

In 2009, the City of Sunnyvale adopted a Policy on the Allocation of Street Space. The Policy for Allocation of Street Space was initiated by the City's Bicycle and Pedestrian Advisory Commission (BPAC) and approved by the City Council on April 28, 2009. The goal was to provide direction on how to consider all modes of transportation when allocating roadway space, particularly in situations that could require the removal of travel lanes or on-street parking or other roadway reconfigurations because of right-of-way constraints. Consideration of bike lanes was a particular intent of the street space allocation policy.

Bordeaux Drive currently does not feature facilities for bicycles or pedestrians. Providing bike lanes on the segment of Bordeaux Drive in question within the existing curb to curb width would require elimination of some or all on-street parking. There is sufficient right of way behind the existing curb to provide sidewalks, or to widen the road to provide bike lanes and sidewalks. Staff has identified and studied three options for providing bike lanes. Staff evaluated roadway geometry, parking supply and demand, motor vehicle speeds, and collision history. Possible environmental impacts and budgetary

implications were also generally considered. Motor vehicle volume and roadway capacity were not evaluated because no options propose changing motor vehicle capacity. A summary of findings is included as Attachment B. As a result of the evaluation, staff recommends that as part of replacement striping associated with the pending re-paving project, that parking be eliminated on one side of Bordeaux Drive in an alternating fashion, and that bike lanes be installed. Speed surveys show that travel speeds on Bordeaux Drive are relatively high in relation to the posted speed. Staff believes that the alternating parking pattern will provide some measure of traffic calming by providing a weaving center line, and that on-street parking, if demand increases in the future, may cause some side friction which will have an affect on motor vehicle speeds.

The City has identified funding for industrial area sidewalk construction and is planning to pursue a project at an undetermined future date. Staff recommends that provision of sidewalks on Bordeaux Drive be deferred to a later date due to possible significant effects to landscaping and topography, and to allow for planning and design of a sidewalk construction project that includes a number of other industrial area streets, to take advantage of economies of scale.

Staff does not recommend elimination of all on street parking and installation of a two way left turn lane. Two way left turn lanes can improve traffic safety by reducing rear end collisions, but a review of a 5 year collision history shows that this is not an issue on Bordeaux Drive. Staff is also not recommending road widening due to budgetary constraints.

Property owners were surveyed to provide input on proposed reconfiguration alternatives. Fifteen surveys were mailed, with \_\_\_\_\_ returned. Of the returned surveys, (TO BE COMPLETED APRIL 23 – as of April 7, 9 responses had been received. Five favored no changes, two favored parking removal and two way left turn installation, one favored parking on alternating sides of the street, and one had no opinion)

Staff also posted an on-line survey on the City's web site. Invitations to take the survey were mailed to 29 community groups, and an email announcement mailed to 69 community activists. The on-line survey found .... (TO BE COMPLETED APRIL 23)

The Sunnyvale Bicycle and Pedestrian Advisory Commission considered this item at its April 16 meeting and (TO BE COMPLETED FOLLOWING BPAC MEETING)

**EXISTING POLICY**

Land Use and Transportation Element C3.5.4 Maximize the provision of bicycle and pedestrian facilities.

Land Use and Transportation Element Street Space Policies:

Appropriate accommodations for motor vehicles, bicycles, and pedestrians shall be determined for City streets to increase the use of bicycles for transportation and to enhance the safety and efficiency of the overall street network for bicyclists, pedestrians, and motor vehicles.

All modes of transportation shall have safe access to City streets. The City should consider enhancing standards for pedestrian facilities.

City streets are public space dedicated to the movement of vehicles, bicycles and pedestrians. Providing safe accommodation for all transportation modes takes priority over non-transport uses. Facilities that meet minimum appropriate safety standards for transport uses shall be considered before non-transport uses are considered.

Parking is the storage of transportation vehicles and shall not be considered a transport use.

Historical precedence for street space dedicated for parking shall be a lesser consideration than providing street space for transportation uses when determining the appropriate future use of street space.

Parking requirements for private development shall apply to off-street parking only.

When decisions on the configuration of roadway space are made, staff shall present options, including at a minimum an option that meets minimum safety-related design standards for motor vehicles, bicycles and pedestrians.

Bike retrofit projects shall be evaluated based on the merits of each project in the context of engineering and planning criteria.

The City Council shall make the final decisions on roadway space reconfiguration when roadway reconfiguration will result in changes to existing accommodations.

Public input on roadway space reconfiguration shall be encouraged and presented independently of technical engineering and planning analyses.

If street configurations do not meet minimum design and safety standards for all users, than standardization for all users shall be priority.

Safety considerations of all modes shall take priority over capacity considerations of any one mode.

### **FISCAL IMPACT**

There are sufficient funds in the operating budget to install striping, signs and legends to re-stripe the road within the existing right of way. Funds are not available for roadway widening, and Council would need to give direction to re-program capital funds or direct staff to pursue outside funding opportunities if road widening is a preferred course of action. The Transportation Strategic Program includes funding for sidewalk construction in industrial areas, and sufficient fee revenue has been collected to construct sidewalks on Bordeaux Drive. A specific sidewalk project for Transportation Strategic Program funding has not been programmed in the Resource Allocation Plan, however.

### **PUBLIC CONTACT**

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's Web site.

In addition, two surveys were administered to property owners along the affected stretch of Bordeaux Drive and to community groups and the public in general. Also, the Bicycle and Pedestrian Advisory Commission held a public hearing on a draft Report to Council at it's April 16, 2010 meeting.

### **ALTERNATIVES**

1. Direct staff to allocate street space on Bordeaux Drive between Moffett Park Drive and Java Drive in order to provide one travel lane in each direction, center two way left turn lane, bike lanes, no on-street parking
2. Direct staff to allocate street space on Bordeaux Drive between Moffett Park Drive and Java Drive in order to provide one travel lane in each direction, bike lanes, on-street parking on one side of the street in an alternating pattern.
3. Direct staff to make no changes from the existing configuration/defer bike lane construction until the road can be widened to accommodate bicycles, pedestrians, and on-street parking.

**RECOMMENDATION**

Staff recommends Alternative No. 2:

Alternative 2 provides bike lanes. The alternating parking pattern will provide some measure of traffic calming by providing a weaving center line, and that on-street parking, if demand increases in the future, may cause some side friction which will have an affect on driver's speed. Staff is recommending deferral of accommodations for pedestrians due to insufficient budget resources. Accommodation of pedestrians can occur within the existing right of way as part of a future project, but current budgeted levels for the pending roadway maintenance project are insufficient for sidewalk construction. This section of Bordeaux Drive would be an element of a future planned industrial area sidewalk project to be funded with transportation impact fees.

Reviewed by:



Marvin A. Rose, Director, Public Works

Prepared by: Jack Witthaus, Transportation and Traffic Manager

Approved by:



Gary M. Luebbers

City Manager

**Attachments**

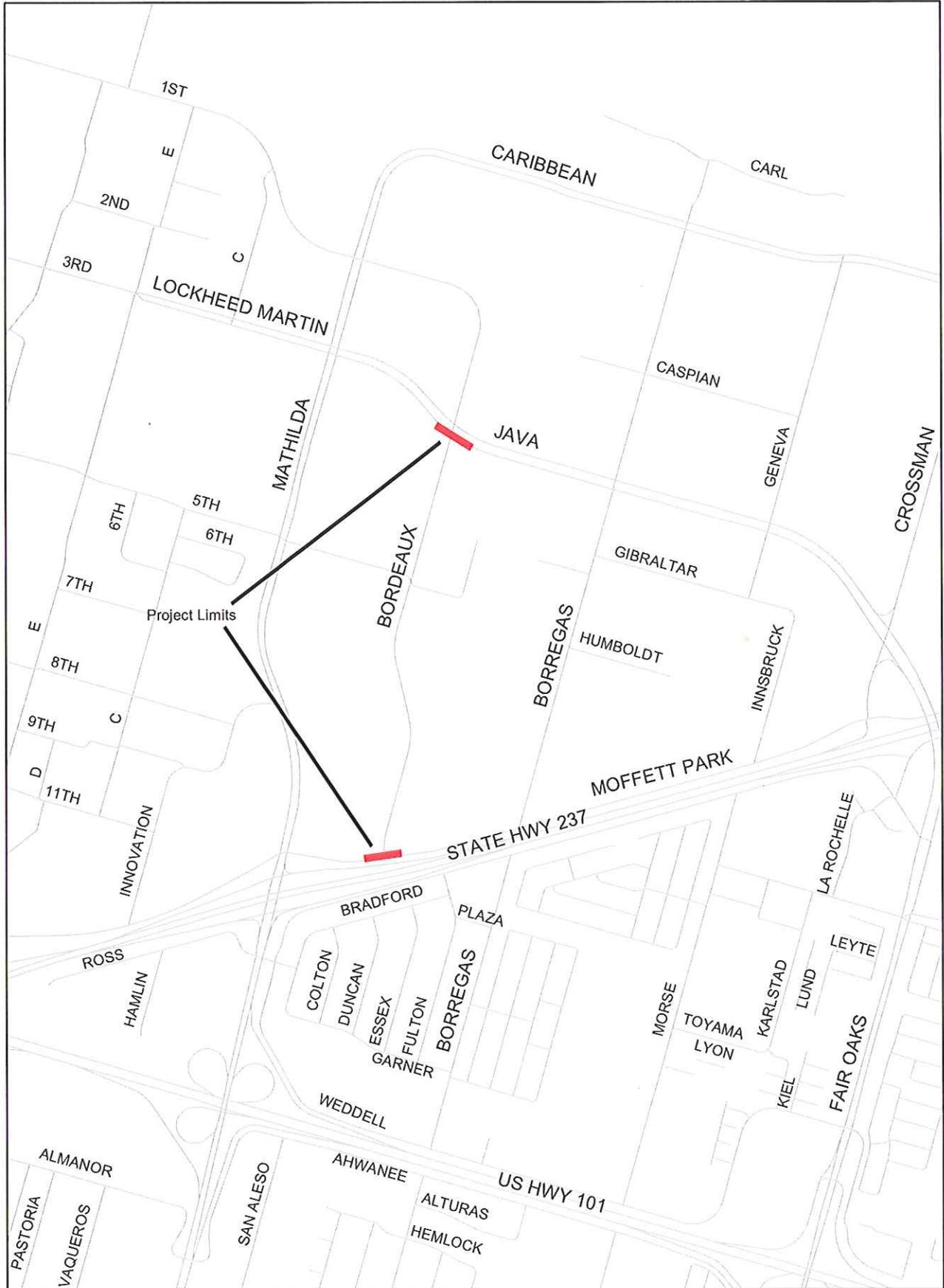
- A. Project Location Map
- B. Street Space Allocation Study Summary

CITY OF SUNNYVALE, CA  
CITY CLERK'S OFFICE  
2010 APR - 8 A 10: 25





# Attachment A: Bordeaux Drive Paving Project









Attachment B

Bordeaux Drive Street Space Allocation Study – Moffett Park Drive to Java Drive

DAY/DATE 3/17.10

TIME 9:30 AM

WEATHER Clear

Street Segment	On Street Parking Capacity	On street Parking Demand
<b>NORTHBOUND</b>		
Moffett Park Drive to Java	<b>123</b>	0
<b>SOUTHBOUND</b>		
Java to Moffett Park Drive	<b>123</b>	0

Estimated Off Street Parking Load

Addresses East Side of Street	Estimated Parking Load	Addresses West Side of Street	Estimated Parking Load
155 A	15%	1335	75%
1160	0%	1231	10%
1178	3%	1225	2%
1180	40%	1215	40%
1188	0%	1195	90%
11990	30%	1185	70%
1212	0%	1183	10%
1230	25%	Cogswell	90%
390	45%	Sheraton	0%



Bordeaux Drive Street Space Allocation Study – Moffett Park Drive to Java Drive

DAY/DATE 3/22.10

TIME 2:30 PM

WEATHER Clear

Street Segment	On Street Parking Capacity	On street Parking Demand
<b>NORTHBOUND</b>		
Moffett Park Drive to Java	<b>123</b>	0
<b>SOUTHBOUND</b>		
Java to Moffett Park Drive	<b>123</b>	0

Estimated Off Street Parking Load

Addresses East Side of Street	Estimated Parking Load	Addresses West Side of Street	Estimated Parking Load
155 A	15%	1335	90%
1160	0%	1231	15%
1178	20%	1225	5%
1180	0%	1215	90%
1188	0%	1195	98%
1190	10%	1185	90%
1212	0%	1183	90%
1230	0%	Cogswell	90%
390	90%	Sheraton	70%



Operational Feature	Minimum Standard or Criterion	Existing	2 travel lanes, parking one side, bike lanes	2 travel lanes, 2 way left turn lane, bike lanes	Road Widening
Vehicle travel lane width	10' travel	13'	13'	12'	12'
Parking lane width	8' parking	8' parking	8' parking	none	8'
Two way left turn lane width	10'			10'	
Bike lane width	3' asphalt, 4' total		5'	5'	5'
Intersection Through Volume	1050 vph/per direction				
ADT	10,000/lane				
Curb ramps	At intersections	none	defer	defer	yes
Sidewalks	5'	none	none	none	5'
Crash reduction potential	High = high incidence of bike collisions, pedestrian collisions, rear end collisions related to left turns		Low	Low	Low
Crosswalk installation potential	See crosswalk installation criteria	none	candidate	candidate	candidate
Speed compatibility and speed reduction potential	Speed limit < 45 mph, 85 <sup>th</sup> percentile more than 5MPH of posted speed	30 MPH posted speed, 42 MPH 85 <sup>th</sup> percentile	good	moderate	moderate
Potential environmental/other issues			insignificant	insignificant	Significant tree removal,



					utility relocation
Relative Cost/budget			Low cost, funds budgeted	Low cost, funds budgeted	Very high cost, funds not budgeted



**Study Issue**  
**Establishment of Guided Bicycle Routes Through Neighborhoods**

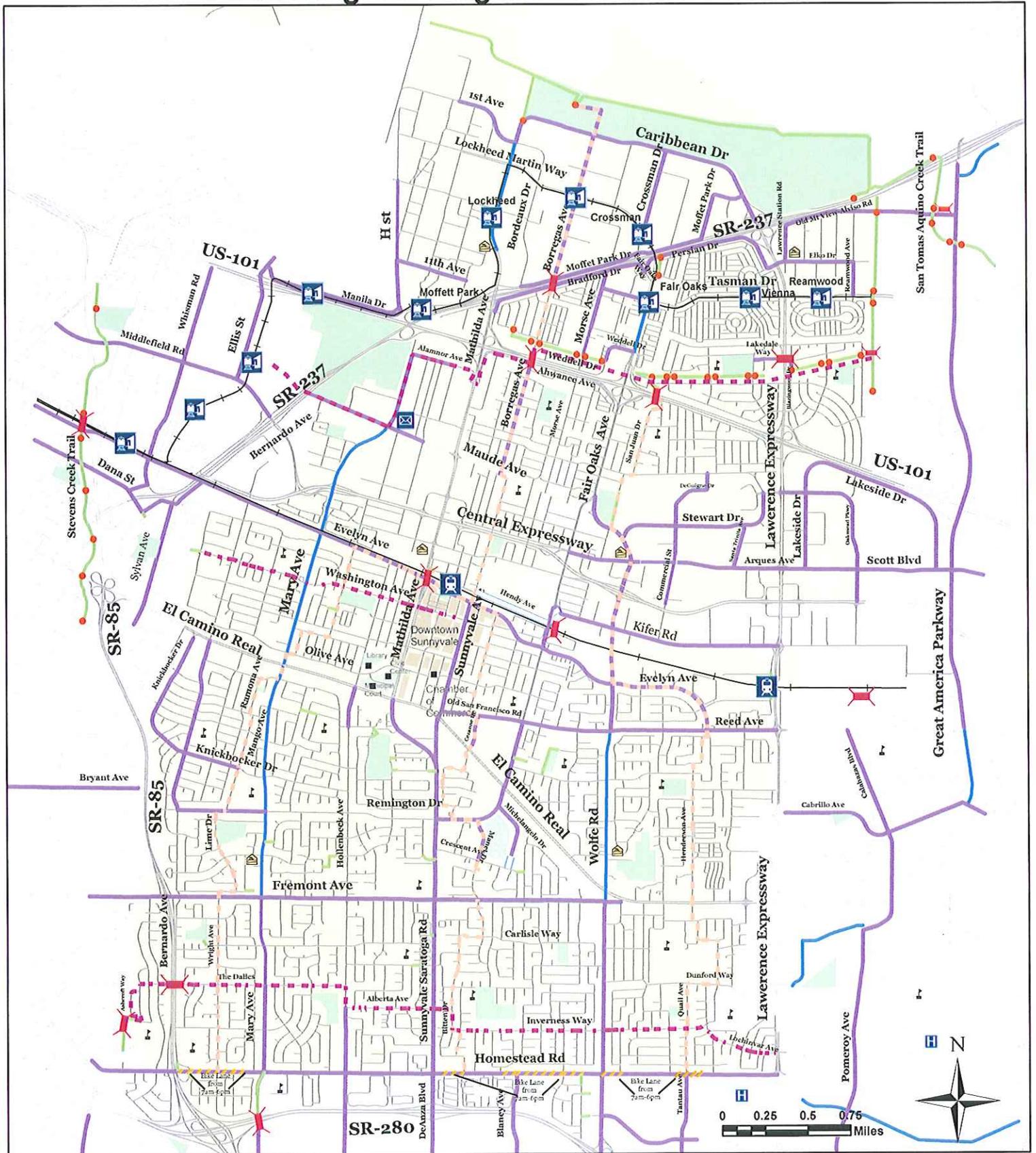
Action Item B4.b of the 2006 City Bicycle Plan calls for consideration of bicycle guide signage on routes through neighborhoods, incorporation of destination names and directional arrows, and distances where appropriate. The approved study issue is to identify neighborhood streets that are lightly traveled by vehicular traffic in order to establish a network of guided routes that assist bicyclists in finding ways through the City.

This matter was previously discussed during the BPAC meeting held on March 18, 2010. Based on feedback of the BPAC members during the March 18<sup>th</sup> meeting and follow-up e-mail messages, the attached map was developed to illustrate all BPAC recommendations received to date. In addition, staff prepared a second map showing staff recommendations of the neighborhood bike routes along with the associated list of destinations. Consistent with the 2006 Bicycle Plan and the Manual on Uniform Traffic Control Devices (MUTCD), staff also prepared the enclosed example of a bike route sign for feedback.

The BPAC members are requested to review the attached maps and share their final recommendations of the signed neighborhood bike routes which could combine elements of the two maps. Feedback on the draft destination sign is also needed.



# Sunnyvale Bikeways - BPAC Recommendations of Future Signed Neighborhood Bike Routes

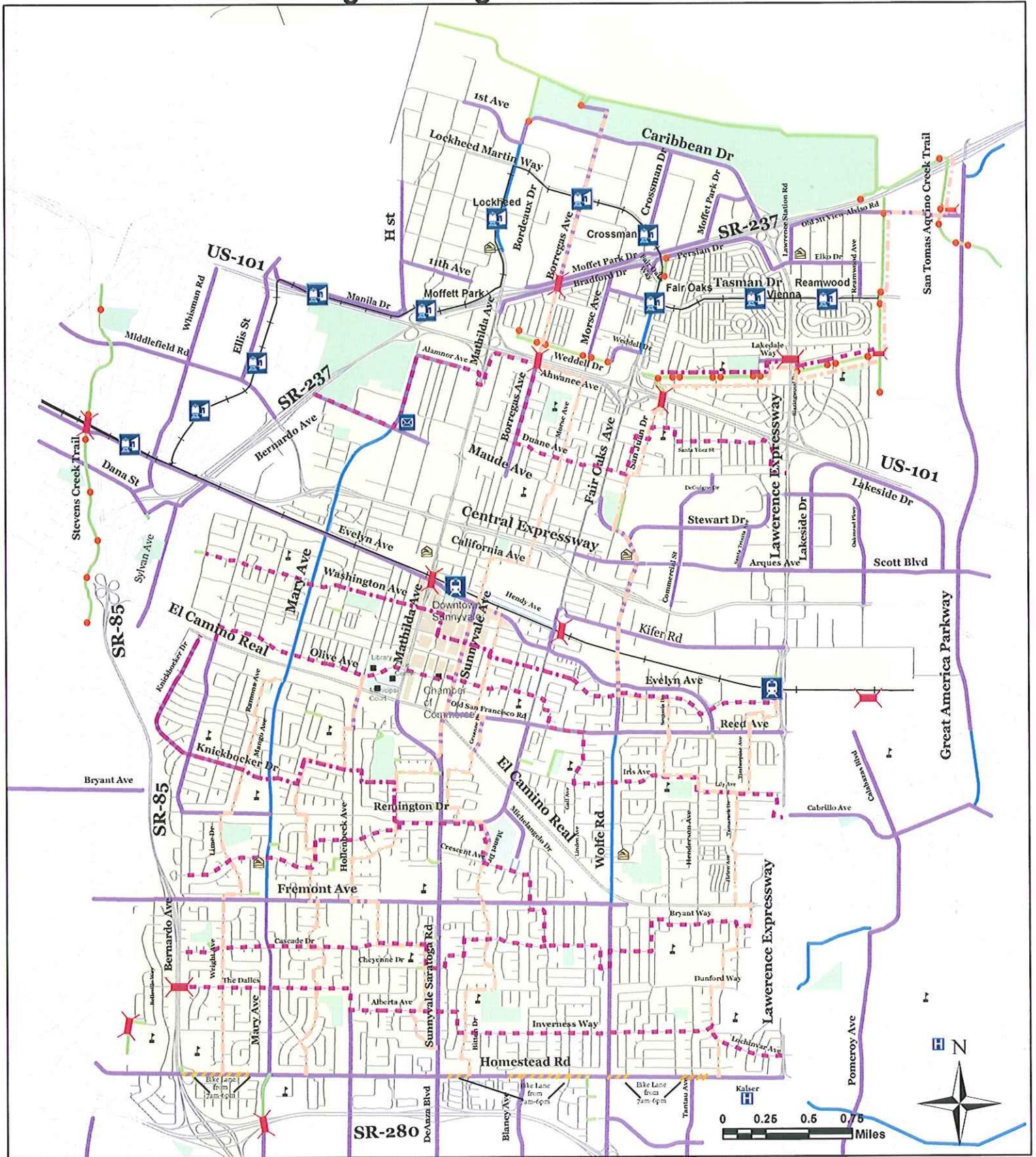


- |                                |                          |                  |              |
|--------------------------------|--------------------------|------------------|--------------|
| Bike Lane                      | Bike Path                | Light Rail Route | School       |
| Signed On-Street Bike Route    | Access Points            | Caltrain Route   | Parks        |
| Future North-South Bike Routes | Bike / Pedestrian Bridge | Post Office      | Fire Station |
| Future East-West Bike Routes   |                          |                  | Hospital     |





# Sunnyvale Bikeways - Staff Recommendations of Future Signed Neighborhood Bike Routes



## Legend

- Bike Lane
- Signed On-Street Bike Route
- Bike Path
- - - Future North-South Bike Routes
- - - Future East-West Bike Routes
- Access Points
- X Bike / Pedestrian Bridge
- Light Rail Route
- Caltrain Route
- Post Office
- School
- Parks
- Fire Station
- Hospital





Destinations associated with the staff recommendations of signed neighborhood bike routes:

Routes	Destinations Along Routes
North-South	Kaiser Hospital Peterson Middle School Raynor Park Ponderosa Park Fair Oaks Park US 101 Bike Bridge JWC Greenbelt Bay Trail Sunnyvale Middle School Lawrence Caltrain Station Stocklmeir Elementary School Sunnyvale Community Center Downtown Sunnyvale Murphy Avenue Columbia Middle School Borregas Bicycle/Pedestrian Bridges Borregas LRT Station Nimitz Elementary School Las Palmas Park Homestead High School Serra Park Cumberland Elementary School Sunnyvale City Hall & Library
East-West	Ortega Park Serra Park SR 85 Bike/Pedestrian Bridge Peterson Middle School Panama Park Sunnyvale Community Center De Anza Park Raynor Park Nimitz Elementary School Cherry Chase Elementary School Las Palmas Park Sunnyvale City Hall & Library Ellis Elementary School Braly Elementary School Braly Park Ponderosa Elementary School Ponderosa Park Main Post Office San Miguel Elementary School Lawrence Caltrain Station Washington Park JWC Greenbelt



*Sunnyvale  
Bike Route*



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**CALTRAIN STATION 0.3 MI**



**DOWNTOWN SUNNYVALE 0.2 MI**

