PLANNING & TRANSPORTATION DIVISION

STAFF REPORT

TO: PLANNING & TRANSPORTATION COMMISSION

FROM: Ruchika Aggarwal **DEPARTMENT:** Planning and Community Environment

AGENDA DATE: May 13, 2009

SUBJECT: Approval of Permanent Retention of Maybell/Donald Bicycle Boulevard Project

RECOMMENDATION

Staff recommends that the Planning and Transportation Commission (PTC) recommend that the Director of Planning and Community Environment approve permanent retention of the Maybell/Donald Bicycle Boulevard Project. The project consists of five midblock speed tables and four median islands at existing crosswalks as illustrated and described in Attachment A.

PROJECT DESCRIPTION

Project History

The adopted Palo Alto Bicycle Transportation Plan includes the addition of 7 new bicycle boulevards to the bicycle route system, including the Maybell/Donald corridor from El Camino Real to Arastradero Road. The bike boulevards are designated high priority projects in the Bicycle Plan implementation program. The two streets serve many school-aged children commuting to Juana Briones School, Terman Middle School and Gunn High School, as well as adult commuter cyclists and neighborhood residents. The opening of Terman Middle School in the fall of 2003 exacerbated traffic conditions and potential conflicts between motorists, bicyclists and students and heightened awareness of the priority to improve this corridor.

In FY 2003/2004, the Council approved funding in the Capital Improvement Program for the bicycle Boulevards Implementation Program (Project PL-04010), beginning with the Maybell/Donald project.

In February 2004, the first community meeting was held at Terman Middle School to inform neighborhood residents about the Maybell/Donald bicycle boulevard project and to seek

neighborhood input on the project. Approximately 25 community members attended. Staff reported that the Maybell/Donald Bicycle Boulevard project funded the design and implementation of physical changes along this corridor consistent with the bicycle boulevard to:

- Create safe bicycling environment for cyclists of all abilities
- Promote increased bicycling
- Reduce conflicts with motor vehicles
- Complement Safe Routes To School efforts

Following the community meeting, a neighborhood working group was formed and met two times to review and comment on the conceptual design of the proposed improvements along Maybell and Donald. The advisory committee included representatives from the Palo Alto Bicycle Advisory Committee (PABAC), Barron Park Neighborhood Association, PTA Traffic Safety Representatives from the affected schools and residents of the study streets.

Bicycle Boulevard Plan

In 2005, the PTC approved a trial of the proposed Maybell/Donald Bicycle Boulevard plan. The project involved a trial implementation of physical improvements to Maybell Avenue and Donald Drive as depicted on the attached map to convert these streets into a bicycle boulevard consistent with the Palo Alto Bicycle Transportation Plan.

Elements of the improvement projects include:

- Installation of 4 speed tables on Maybell Avenue between El Camino Real and Donald Drive
- Installation of 2 median islands at the marked crosswalks at the intersections of Maybell Avenue and Amaranta Drive and Maybell Avenue and Coulombe Drive
- Installation of 1 speed table on Donald Drive between Maybell Avenue and Arastradero Road.
- Installation of bicycle boulevard signage

The trial period that began in September 2007 is now over and staff has been collecting data to evaluate the success of the trial. Operational evaluation includes impacts on street functions and services. Input from PABAC and City School Traffic Safety Committee (CSTSC) are other components of the project evaluation, which will report on their experiences with the measures, such as noise, impacts on vehicles, visual impacts, and their overall assessment of whether or not the project should be retained permanently.

Palo Alto Bicycle Advisory Committee Review

The Palo Alto Bicycle Advisory Committee discussed the proposed plan at the May 5th meeting. Correspondence from the Committee is included in the PTC packet.

SUMMARY OF SIGNIFICANT ISSUES

Evaluation of Trial Project

Installation of the trial plan was completed in September 2007. Staff gathered the evaluation data in spring 2008. The detailed evaluation report is attached (Attachment B).

The primary purpose of this plan is to create a calmer, safer corridor for bicyclists by reducing traffic speeds along Maybell and to encourage a higher level of bicycling in Palo Alto. Results of these "Before" and "After" studies are summarized in the table attached (Attachment C). It can be concluded from the table that there has been a general reduction in traffic volumes on Maybell Avenue measured in the range of 6% to 13%. Other neighboring streets (namely Amaranta, Los Robles, Coulombe and Wilmar) also experienced reductions in traffic volumes. Vehicular traffic speeds on Maybell Avenue were reduced by about 15% at the speed table. Neighboring streets did not experience any significant reduction in speeds.

The most significant impact from the project relates to maintenance and affects the Public Works and Police Departments. At two locations in the project area, the stop signs in the median islands have been hit by vehicles several times and had to be replaced each time, thus causing an increase in the City's street maintenance workload. The problem is primarily at one island, west of the Couloumbe/Maybell intersection.

In order to reduce the number of crashes between vehicles and stop signs, staff recommends the following:

- For the median island located at west of Couloumbe at Maybell, staff recommends moving the island about 1.5-2 feet back of the crosswalk to increase the turning radius.
- Staff also recommends painting the curb between the two school driveways on Maybell red. This would lead to loss of one parking space.

These recommendations were presented to and approved by the working group in a meeting held in October 2008 and neighborhood meeting held in February 2009. For the neighborhood meeting held on 10th February 2009, approximately 210 notices were sent to households in project area. Four people were present at the meeting and three comments were received prior to the meeting. At the meeting, it was requested by residents to collect traffic speeds in between the speed tables to see if vehicles increase their speed between tables to gain lost time at the table. Staff followed up and conducted traffic speeds at two locations as shown in attachment C.

POLICY IMPLICATIONS

Goal T-3 of the Transportation Element of the 1998-2010 Palo Alto Comprehensive Plan calls for the development of facilities, programs and services that encourage and promote walking and bicycling. This project is consistent with the following specific programs included under this goal:

> Program T-19 calls for the development and implementation of a bicycle facilities improvement program that prioritizes critical pedestrian and bicycle links to parks, schools, retail centers, and civic facilities.
>
> Program T-22: calls for implementation of a network of bicycle boulevards.

Goal T-6 of the Transportation Element also states that the City should strive for a high level of safety for motorists, pedestrians, and bicyclists, and includes the following policies:

Policy T-39 calls for the City to make safety the first priority of citywide transportation planning, and to prioritize pedestrian, bicycle and automobile safety over vehicle level of service at intersections.

Policy T-40 states, "Continue to prioritize the safety and comfort of school children in street modification projects that affect school travel routes."

This project is also consistent with the Council-adopted School Commute Corridors Network. The network designates a subset of Palo Alto's street systems for special consideration for infrastructure improvement and travel safety enhancements. Maybell and Donald are identified school commute corridors on the network.

ENVIRONMENTAL REVIEW

The proposed modifications are minor upgrades to an existing residential street right-of-way and would not result in any new impacts to the existing environment. This project is considered as a minor alteration to the existing street system, and therefore categorically exempt (Class 1 Exemption, Section 15301) from the provisions of the California Environmental Quality Act (CEQA).

PUBLIC NOTICE

On April 30th, 2009 project area residents were mailed a notification of this PTC meeting and the availability of the staff report.

NEXT STEPS

Assuming the PTC approves the staff recommendation, the final decision about retaining the speed tables and median islands would rest with the Director of Planning and Community Environment. That approval would take place approximately one week after the PTC's decision. After the approval, modifications will be made for the median island located west of Couloumbe on Maybell. The speed tables would remain permanently as they are now installed. Staff will then notify residents by mail of the Director's decision.

ATTACHMENTS/EXHIBITS:

A. Bicycle Boulevard Plan
B. Detailed Evaluation Report
C. Before and After Traffic Speed and Volume Counts
D. Correspondence

COURTESY COPIES:

Palo Alto Bicycle Advisory Committee
City/School Traffic Safety Committee
Principals and PTA Traffic Safety Representatives for Juana Briones, Terman and Gunn
Kevin Skelly, Superintendent, PAUSD,
Maybell/Donald Bicycle Boulevard Working Group members

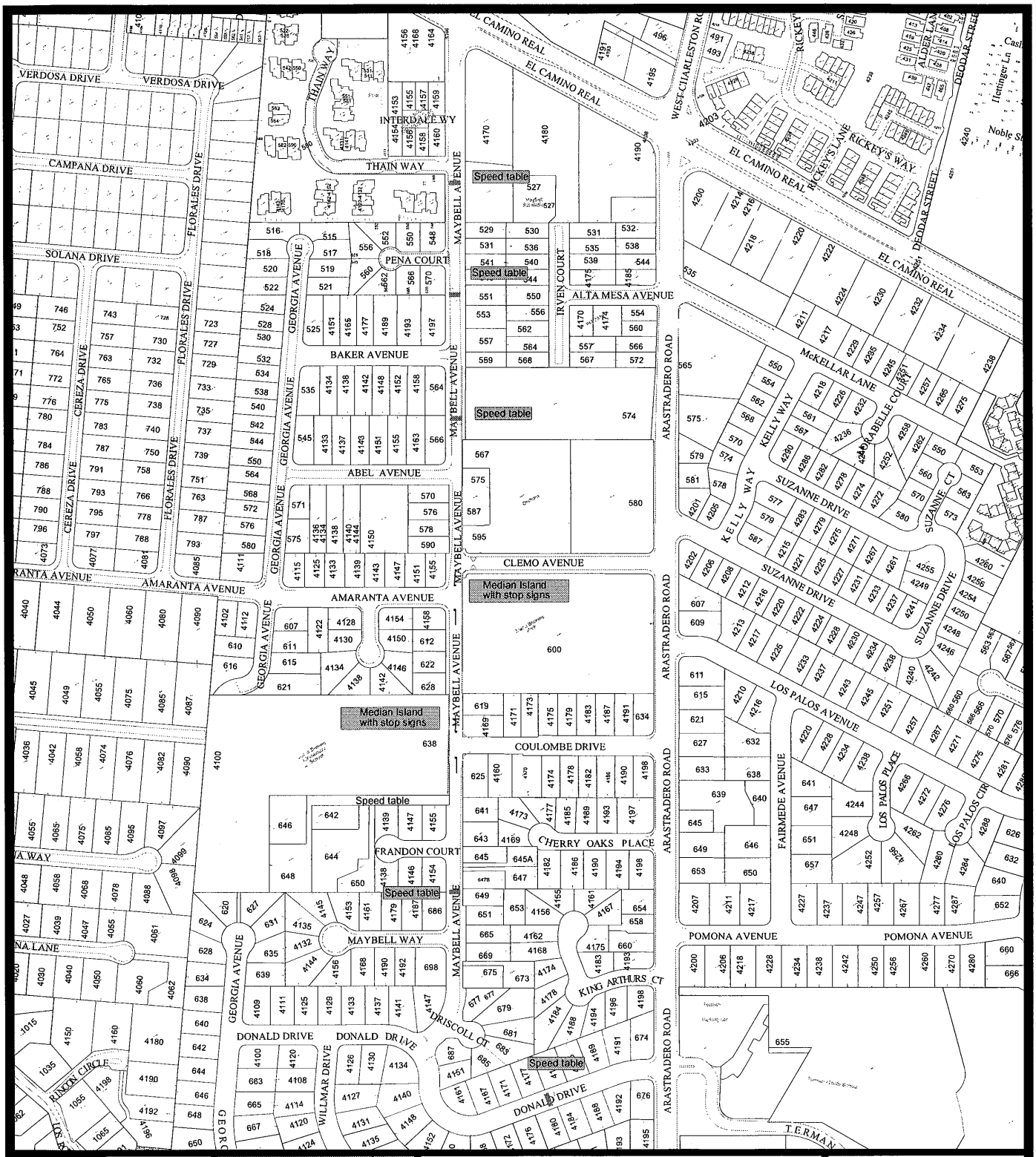
Prepared by: Ruchika Aggarwal, Assistant Engineer

Reviewed by: Gayle Likens, Transportation Manager

Department/Division Head Approval:

Julie Caporgno
Chief Planning & Transportation Official

ATTACHMENT A



The City of Palo Alto

Maybell-Donald Bicycle Boulevard Plan

Attachment A

This map is a product of the City of Palo Alto GIS

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maybell bike boulevard plan (\\cc-maps\gis$\gis\admin\Personal\FeRead.mdb)

Attachment B

MAYBELL/DONALD BICYCLE BOULEVARD PROJECT DETATILED EVALUATION REPORT

Project Description: This project consists of the following:

- 4 speed tables on Maybell Avenue between El Camino Real and Donald Drive
- 2 median islands at the marked crosswalks at the intersections of Maybell Avenue and Amaranta Drive and Maybell Avenue and Coulombe Drive
- 1 speed table on Donald Drive between Maybell Avenue and Arastradero Road.

Project Evaluation: The traffic calming devices were spaced out over approximately 0.5 mile length of Maybell Avenue from El Camino Real to Donald Drive. The primary purpose of this plan is to create a calmer, safer corridor for bicyclists by reducing traffic speeds along Maybell and to encourage a higher level of bicycling in Palo Alto.

Operational evaluation includes impacts on street functions and services. Input from PABAC and CSTSC are other components of the project evaluation, which will report on their experiences with the measures, such as noise, impacts on vehicles, visual impacts, and their overall assessment of whether or not the project should be retained permanently.

Before-After Volume and Speed results: Studies assessing daily traffic volumes and speeds were performed before and after the implementation of the trial project. "Before" traffic counts were measured in May 2005 and in April 2008 new speed and volume counts were taken for the "after" condition. Results of these "Before" and "After" studies are summarized in the table attached. It can be concluded from the table that there has been a general reduction in traffic volumes on Maybell Avenue measured in the range of 6% to 13%. Other neighboring streets (namely Amaranta, Los Robles, Coulombe and Wilmar) also experienced reductions in traffic volumes. Vehicular traffic speeds on Maybell Avenue were reduced by about 15% at the speed table. Neighboring streets did not experience any significant reduction in speeds.

Postal Service: The project has not impacted Postal Service operations.

Traffic Crashes: There were three collisions in the project area during the trial period. In each case, the collision occurred between a vehicle and a stop sign situated in the median centre island. Two collisions were reported at the intersection of Maybell and Couloumbe and the third one at Maybell and Amaranta.

Police Department: According to the Police Department, this project area corridor has been well received and other than a few parking complaints in the beginning they have had no issues.

Fire Department: All traffic calming devices slow the emergency response time. However, Fire Department finds that the wider speed tables are preferable to speed humps for emergency response vehicles. The wide width is less rigorous on the apparatus (given length and weight of apparatus) and does not result in as much wear and tear on the vehicle from a maintenance

perspective. Also when transporting a patient in the ambulance the wider width is less traumatic to the patient and this is a significant factor for a trauma patient and also when CPR is being preformed in the back of the ambulance.

On the other hand, reduced vehicle speeds, can reduce the number of and severity of personal injury in any future crashes on these streets.

Public Works Department: The biggest and the most frequent impact on Public Works department are the centre median islands and the stop signs placed in them at two locations in the project area. The stop signs have been hit by vehicles several times and had to be replaced each time, thus causing an increase in the City's street maintenance workload.

These traffic-calming measures, like any others, also have negative impacts on street maintenance and street sweeping. The measures will interfere with a street repaving project. Speed tables would have to removed and replaced for a major project. The street sweepers cannot follow the contour of the road while driving over the table therefore the debris are blown out the side of the sweeper. Extra staff time is therefore required to keep the area clean. Traffic calming measures require occasional maintenance for paint, signs and concrete elements.

Stormwater: The speed humps would not interfere with storm water runoff during a major flood event, since the gutters remain fully open and the tables are only three inches high.

BEFORE AND AFTER SPEED AND VOLUME COUNTS

	Address and Location	Before trial (May 2005)		After trial (April 2008)		Change from before to after			
		85% Speed[1]	Daily Volume	85% Speed	Daily Volume	85% Speed		Daily Volume	
		(mph)[3]	(vpd)[2]	(mph)	(vpd)	in mph	in %	in vpd	in %
1	Maybell between Abel & Baker (On top of the speed table)	29	2575	24.5	2395	-4.5	-15.52%	-180	-7%
2	Amaranta @ 4147 (about 150' from the median island)	27.5	2544	27.5	2351	0	0.00%	-193	-7.5%
3	Couloumbe @ 4178 (general area without street specific traffic calming devices)	30	2516	31	1316	1	3.33%	-1199.8	-47.7%
4	Maybell @ 649 (On top of the speed table)	28.5	1502	24.5	1306	-4	-14.04%	-196.3	-13%
5	Donald @ 4133 (general area without street specific traffic calming devices)	24.5	912	25.5	888	1	4.08%	-24.4	-2.6%
6	Georgia @ 648 (general area without street specific traffic calming devices)	25.5	594	25	620	-0.5	-1.96%	26	4.3%
7	Willmar @ 4128 (general area without street specific traffic calming devices)	25.5	144	26	135	0.5	1.96%	-9	-6.2%
8	Donald @ 4180 (On top of the speed table)	30	740	25	655	-5	-16.67%	-85.4	-11.5%
9	Amaranta @ 4040 (general area without street specific traffic calming devices)	29.5	2066	29.5	1823	0	0.00%	-243.7	-11.8%
March 2009 (Counts conducted at two locations-in between the speed tables, as per residents request)									
10	529-531 Maybell			28.5	2929				
11	250'-275' west of speed table located at 649 Maybell			26	1311				

1- 85th Percentile Speed: Is the speed at, or below which 85% of motorists travel
2- vpd: Vehicles Per Day
3- mph: Miles Per Hour