



CITY OF SANTA BARBARA
Transportation & Circulation Committee
Staff Report

DATE: December 11, 2008

TO: Transportation & Circulation Committee (TCC) Members

FROM: Browning Allen, Transportation Division Manager

SUBJECT: STATE AND DE LA VINA INTERSECTION RECONFIGURATION PROJECT

RECOMMENDATION: That the TCC reaffirm its recommendation of November 8, 2007 for the modification of the State and De La Vina intersection.

Background

The State at De La Vina Intersection reconfiguration project was first discussed during the 2003-2004 Oak Park Neighborhood Traffic Management Program (NTMP) process as a potential means of addressing neighborhood comments regarding the challenges of using this intersection. The general area was identified as among the top 10 priorities for the participants of this neighborhood outreach process because of the difficulties in access and egress from Samarkand Road and the immediately adjacent commercial area, the potential for bicycle vehicle conflict on State at De La Vina and the pedestrian unfriendly crossing, including the free right turn.

Because of the size of the proposed project, transportation staff advised the Oak Park residents participating in the process that alternative funds would be sought to improve this intersection. The Core Group of the Oak Park NTMP reviewed alternatives and recommended a change to this intersection be funded as a Capital Improvement Project. This project was reiterated in Section V of the Upper State Street Study (2007) "to modify the intersection as planned to remove the eastbound free-right turn and provide positive signal control for all crosswalks at the intersection."

Council authorized the design of this intersection reconfiguration project as one of several projects funded through the Traffic Congestion Relief Program grant funds in November 2005. It was approved by the California Transportation

Commission and the Regional Transportation Planning Agency as an appropriate candidate for the use of Transportation Congestions Relief Program funds in September 2006. A concept design for this project was found to be consistent with the Circulation Element by the Transportation and Circulation Committee in November 2007.

The installation for De La Vina and State Street is currently funded for design and construction dollars will be allocated by the State on a first-come, first serve basis, once the project is ready to go out to bid. The components of the project include installation of traffic signals, access ramps, crosswalk striping, and replacement of the right turn lane with a passive park.

Issue Identification

At the time of the intersection's construction, the land uses adjacent to the turn were automobile serving, but today this entrance serves as the gateway to the Upper De la Vina Commercial District where multiple commercial areas serve all modes including a coffee shop, a City park, and Trader Joe's.

Some of the issues identified by participants in the Oak Park Neighborhood Traffic Management Program at this intersection in particular are: inconvenient and uncomfortable pedestrian crossings (190 feet with two refuges across De La Vina, and 125 feet with one refuge across State); stopping distance less than that typical for a conventional intersection; 35 mph 85th percentile speed through the turn; bicycle weaving across free right turn lane with typical yielding in order to go through; and poor aesthetics. In the last five years, nine collisions have been reported at the Trader Joe's parking lot, where maneuverability and visibility are limited.

Project Development

In order to address the identified issues a project was developed that would eliminate the free right turn lane at the subject intersection, and reduce the angle of approach for Northbound De La Vina Street to that more typical of a perpendicular intersection. The current configuration of the intersection is vehicle oriented and places pedestrian and bicycle movements at a secondary level of capacity and safety. The elimination of a free right turn lane is a recommended practice for improving pedestrian access at intersections. The improvements proposed to date provide a balance between all users and do not favor one user mode over the other.

The merits of the current design have been the subject of considerable community debate. Representatives of the public and Architectural Review Board Staff have asked that staff explore other design alternatives to achieve the goals of the project and the Circulation Element. It is the purpose of this report to

provide background on alternative designs considered by staff since the Transportation and Circulation Committee last saw the project, for the purpose of moving forward in design and review with a preferred design alternative.

Circulation Element Policy Implications

The intent of the project is to implement many of the Circulation Element Policies:

- Policy 2.1 – Work to achieve equality of convenience and choice among all modes of transportation
- Policy 4.2 - The City shall work to expand, enhance, and maintain the system of bikeways to serve current community needs and to develop increased ridership for bicycle transportation and recreation
- Policy 5.1 – The City shall create an integrated pedestrian system within and between City neighborhoods, schools, recreational areas, commercial areas, and places of interest.
- Policy 5.5 – The City shall create and foster a pedestrian friendly environment through physical and cultural improvements and amenities.
- Policy 5.6 - The City shall make street crossing easier and more accessible to pedestrians.

Environmental analysis of a project potentially affecting the level of service of an intersection considers a project impact to be achieved when the project would degrade the intersection below the Level of Service C or .77. The intent of the project is to maintain a satisfactory level of service for vehicles at the intersection. Therefore no project was proposed that would reduce the vehicular level of service below this threshold.

Current Status

The project was found to be consistent with the Circulation Element by the Transportation and Circulation Committee in October 2007. The Parks and Recreation Committee reviewed and approved the tree removal and replacements necessary for the project to move forward in February 2008. The project has been before the Architectural Board of Review twice (November 2007 and May 2008) and has failed to gain the support of the Board. The Board, and members of the community have asked that other alternatives to the removal of the free-right turn lane be considered.

With that in mind, staff has made an effort to develop and assess the alternative brought forward previously to the TCC as well as other alternatives not previously considered. These concepts are drawn below, with brief descriptions. The proposal that has been forwarded previously is called “Remove Free Right Turn and Island,” a proposal that brings all traffic to the intersection while maintaining the island is called “Remove Free Right Turn and Maintain Island,” a proposal

that retains the free-right turn lane while reducing its width is called "Maintain Free Right Turn." The "Narrow Free Right Turn (Plus)" proposal builds on the "Narrow Free Right Turn" proposal by adding on the closure of the northbound right turn lane and/or curb extensions and a median on De La Vina Street. It should be noted that a roundabout option was considered as well, but dismissed because of right-of-way concerns.



Remove Free Right Turn

Proposal Elements	Proposal Merits
<ol style="list-style-type: none"> 1. Free right turn lane replaced with park 2. Exclusive NB De La Vina right turn lane replaced with curb extension 3. Existing island replaced with SB De La Vina lane 4. 80' right turn pocket on State 5. Bike lane to left of right turn pocket on State 6. 50' pedestrian crossing of De La Vina 	<ol style="list-style-type: none"> 1. State street crossing will be initiated from the corner instead of on island 2. Slower speeds to Samarkand crosswalk should increase yield rate 3. DLV turns from 3 crosswalks into 1 crosswalk, and State turns from 2 crosswalks into 1 crosswalk 4. Reduces the pedestrian exposure by reducing the crossing distance along State crossing DLV & protected by the pedestrian phase of the signal 5. Access for downstream driveways should improve because oncoming vehicle speeds are slower 6. The asphalt is recaptured to landscaping, improving sustainability

	Proposal Elements	Proposal Merits
<p>PHASE DIAGRAM</p>	<ol style="list-style-type: none"> 1. Free right turn lane is reduced to 12' plus 6' bike lane 2. Landscaped parkway adjacent to curb 3. No change in NB De La Vina approach 4. Curb side bike lane east-bound State Street 5. Option of closing NB De La Vina right turn lane 6. Option of adding pedestrian refuge and curb extension on De La Vina at Samarkand 7. 190' pedestrian De La Vina crossing with two refuges 	<ol style="list-style-type: none"> 1. Speed reduction in free right turn should increase yield rate at Samarkand 2. State Street through bike lane adjacent to curb 3. Enhanced pedestrian crossing at Samarkand 4. Maintains existing island 5. Provides landscaped parkway adjacent to free right turn 6. State street crossing could be initiated from the corner instead of on island 7. Access for downstream driveways should improve because oncoming vehicle speeds are slower 8. Low cost due to minimal change to existing traffic signal

Narrow Free Right Turn (plus)

Conclusion

The alternatives reviewed for the purpose of this briefing could all provide some pedestrian and bicycle benefits. While the “Narrow Free Right Turn” concept appears to have some operational advantages for vehicles, none of the alternatives has a significant impact on the level of service for vehicles at the intersection. Furthermore, while both the “Narrow Free Right Turn (Plus)” and “Remove Free Right Turn” proposals have roughly equivalent operational benefits distributed across the different modes, no proposal that maintains the free right turn can be considered to provide equality of convenience for all modes. It should be noted that the “remove Free Right Turn” proposal was the only one supported and created by core group.

Therefore it is the recommendation of staff that the “Remove Free Right Turn” proposal more fully meets the policies of the Circulation Element. Details are provided in the attachments.

BA/Dvh/dvh

Attachment

Attachment A: Evaluation Utilizing Operations Metrics

Importance Factor	3	2	2	1	3	1	3	1	3	1	2	
	SB DLV Ped Xing	Improve Bike Lane EB State	Vehicle LOS	Samarkand Intersection	Cost Relative to Benefit	NB RT DLV Ped Xing	Samarkand Ped Xing	DLV NB Ped Xing	Landscape Potential	Minimized Parking Loss	Functional Green Space	Total
Unweighted Ratings												
Remove Free Right Turn	4	3.5	1.5	4	2	4	2	1	3	1.5	4	30.5
Remove FRT Maintain Island	1	3.5	1.5	3	1	2	1	2.5	4	1.5	3	24
Narrow Free Right Turn	2.5	1.5	4	1.5	4	1	3	2.5	1	3.5	1	25.5
Narrow Free Right Turn (plus)	2.5	1.5	3	1.5	3	3	4	4	2	3.5	2	30
Weighted Ratings												
Remove Free Right Turn	12	7	3	4	6	4	6	1	9	1.5	8	61.5
Remove FRT Maintain Island	3	7	3	3	3	2	3	2.5	12	1.5	6	46
Narrow Free Right Turn	7.5	3	8	1.5	12	1	9	2.5	3	3.5	2	53
Narrow Free Right Turn (plus)	7.5	3	6	1.5	9	3	12	4	6	3.5	4	59.5

Note Ratings rankings:

4 = most benefit

1 = least benefit

Note Values Weighting:

3 = High Value

2 = Medium Value

1 = Low Value

Attachment B: Evaluation Utilizing Policy Metrics

	Policy 2.1 – Work to achieve equality of convenience and choice among all modes of transportation	Policy 4.2 - Expand, enhance, and maintain the system of bikeways	Policy 5.1 – create an integrated pedestrian system within and between City neighborhoods, schools, recreational areas, commercial areas, and places of interest.	Policy 5.5 – create and foster a pedestrian friendly environment through physical and cultural improvements and amenities.	Policy 5.6 - make street crossing easier and more accessible to pedestrians.	Change in Level of Service for Vehicles	Total
Importance Factor	3	2	3	2	3	2	
<i>Unweighted Ratings</i>							
Remove Free Right Turn	4	2.5	4	4	4	1	19.5
Remove FRT Maintain Island	3	2.5	3	1	3	2	14.5
Reduce Free Right Turn	1.5	2.5	1.5	2	1.5	4	13
Reduce Free Right Turn (plus)	1.5	2.5	1.5	3	1.5	3	13
<i>Weighted Ratings</i>							
Remove Free Right Turn	12	5	12	8	12	2	51
Remove FRT Maintain Island	9	5	9	2	9	4	38
Reduce Free Right Turn	4.5	5	4.5	4	4.5	8	30.5
Reduce Free Right Turn (plus)	4.5	5	4.5	6	4.5	6	30.5

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