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REPORT TO BICYCLE AND PEDESTRIAN ADVISORY COMMISSION

SUBJECT

Provide a Recommendation to City Council for the Design Development of Fair Oaks Bike Lanes and Streetscape Project

REPORT IN BRIEF

In 2013, the City applied for 11 One Bay Area Grant (OBAG) applications, one of which was the “Fair Oaks Bike Lanes and Streetscape Project”. Upon notification of receipt of the grant, the City Council approved creation of the project in 2014, and the design consultant, CSG Consultants, Inc. started work in 2016.

The intent of the project is to install bicycle amenities to connect Fair Oaks Avenue from US 101 to Old San Francisco Road. The project is comprised of three distinct segments, each with its own characteristics (Attachment 2 - Bicycle Network near Fair Oaks Avenue). The segments are broken out as follows:

- Segment 1: Old San Francisco Road to Evelyn Avenue
- Segment 2: Kifer Road to Arques Avenue
- Segment 3: Wolfe Road to Ahwanee Avenue

The consultant performed technical analyses for all three segments to evaluate the feasibility of installing striped (Class II) bicycle lanes within the existing roadway. This information, along with different options for each segment, were brought to the community for input on November 9, 2016, and January 18, 2017.

As part of the analysis staff reviewed the consultant’s work, community feedback, and existing General Plan and Council policy and developed the following key findings:

- The collision rate on Fair Oaks is higher than the state average, therefore staff did not recommend removal of the middle turn lane. Middle turn lanes can reduce collisions by up to 50%.
- Installation of bike lanes on Segment 1 would require parking removal.
- There is no feasible way to install bike lanes on a portion of Segment 2. The only option would be to remove travel lanes (convert Fair Oaks to one lane in each direction) which was not considered as part of the analysis.
- On Segment 3, Fair Oaks has three southbound lanes and two northbound lanes. Installation of bike lanes would require removal of one of the southbound lanes. The analysis showed that removing a travel lane has Level-of-Service (LOS) traffic impacts with no mitigation available. An Environmental Impact Report (EIR) would be required to

disclose and override the impact prior to removing the lane and installing bike lanes.

Due to the constraints throughout the corridor, bike lanes are only feasible on Segment 1 and a portion of Segment 2, which does not provide a continuous stripped bike lane facility. At this time, staff recommends proceeding with only the installation of Class III “sharrows” in each of the three segments. Installation of a constant “sharrow” corridor will provide a consistent experience for vehicles and bicycle riders traversing Fair Oaks.

Considering the constraints, the Fair Oaks corridor should be reviewed as part of the upcoming update to the bike masterplan to determine if it should continue to be priority North-South bicycle corridor. There could be other North-South opportunities that could be more suitable for riders of all skills and ages. Also, once the Fair Oaks bridge widening is completed (with bike lanes), the City could reconsider Segment 1, as it could help provide continuous bike lane connectivity on a much larger segment of Fair Oaks.

This item is scheduled to go to Council on May 9, 2017.

BACKGROUND

The 2006 Sunnyvale Bicycle Plan calls for installation of bike lanes along Fair Oaks Avenue. On February 26, 2013, the City Council approved a Resolution of Support for 11 One Bay Area Grant (OBAG) applications, including the “Fair Oaks Avenue Bike Lanes and Streetscape” project. The Fair Oaks Avenue Bike Lanes and Streetscape project proposes bike lanes on three segments of Fair Oaks Avenue between Old San Francisco Road and Ahwanee Avenue as shown in Attachment 2. These segments include Fair Oaks Avenue between Old San Francisco Road and Evelyn Avenue (Segment 1); between Kifer Road and Arques Avenue (Segment 2); and between Wolfe Road and Ahwanee Avenue (Segment 3). There are two other segments in the stretch of Fair Oaks Avenue between Old San Francisco Road and Awanhee Avenue that are not covered under this project. The segment between Evelyn Avenue and Kifer Road already will receive 6’ wide Class II bicycle lanes striped in each direction with the widening of Fair Oaks Bridge (currently in the final stages of design) and the segment between Arques Avenue and Wolfe Road is being analyzed by a future grant funded project.

The City was awarded multiple OBAG grants in this first grant cycle. On July 29, 2014, the City Council approved a budget modification to appropriate City funds in the amount of $254,100 to match with a $955,900 OBAG grant for the Fair Oaks Avenue Bike Lanes and Streetscape project. A contract was awarded to CSG Consultants, Inc. on June 29, 2016, to analyze feasible alternatives to implement this grant project. As part of CSG’s analysis for this project a traffic study was performed which included the evaluation of existing traffic conditions, parking studies, collision evaluation, and community outreach.

EXISTING POLICY

In performing the analysis and developing the conclusions identified in this report, the following General Plan policies were referenced and considered:

General Plan Chapter 3 Land Use and Transportation:

- LT-1.9: Support flexible and appropriate alternative transportation modes and transportation system management measures that reduce reliance on the automobile and serve changing

regional and citywide land use and transportation needs.
- LT-5.1(g): Minimize the total number of vehicle miles traveled by Sunnyvale residents and commuters.
- LT-5.5: Support a variety of transportation modes.
- LT-5.5(d): Maximize the provision of bicycle and pedestrian facilities.
- LT-5.5(e): Implement the City of Sunnyvale Bicycle Plan.
- LT-5.12: 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.
- LT-5.13: Parking is the storage of transportation vehicles and shall not be considered a transport use.
- LT-5.14: 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.
- LT-5.18: The City Council shall make the final decisions on roadway space reconfiguration when roadway reconfiguration will result in changes to existing accommodations.
- LT-5.21: Safety considerations of all modes shall take priority over capacity considerations of any one mode.

Chapter 6 - Safety and Noise
- SN-3.5: Facilitate the safe movement of pedestrians, bicyclists and vehicles.

ENVIRONMENTAL REVIEW

The action being considered does not constitute a “project” within the meaning of the California Environmental Quality Act (“CEQA”) pursuant to CEQA Guidelines section 15378(b)(5) in that it is a governmental organizational or administrative activity that will not result in direct or indirect changes in the environment. It is expected that the CEQA determination of this project at the completion of the design phase will be a Class 1 categorical exemption pursuant to Section 15301 (c) and (d) for existing streets involving no expansion. However, if the option to remove a southbound vehicular lane between Wolfe Road and Ahwanee Avenue is selected to implement bicycle lanes, then an Environmental Impact Report (EIR) would be required to analyze and discuss any traffic impacts.

DISCUSSION

Fair Oaks Avenue is a North-South arterial that connects US 101 in the North to El Camino Real in the South. The goal of the project is to review, recommend, and implement options that improve bicycle amenities along this two-mile corridor along three separate segments of Fair Oaks Avenue between Old San Francisco Road and Evelyn Avenue (Segment 1); between Kifer Road and Arques Avenue (Segment 2); and between Wolfe Road and Ahwanee Avenue (Segment 3), per the 2006 Sunnyvale Bicycle Plan. Implementation of bicycle amenities is limited to the existing roadway width; no expansion of pavement or moving of the existing curb lines is included within this project. Bicycle detection equipment will be installed at all the signalized intersections in the three segments.

Segments

The project was broken into three separate segments in order to facilitate technical studies due to each segment having unique characteristics requiring independent analysis. One item that was considered on multiple segments was the removal of the center turn lane to install bike lanes.

Center Turn Lane
There are two key considerations when considering removal of a two-way-center turn lane, traffic flow and collision history. For the Fair Oaks Avenue project, staff reviewed the collision history for the whole corridor. Over a recent three-year period, a total of 126 collisions including 51 injuries and one fatal collision were recorded within the project limits on Fair Oaks Avenue. To determine how a roadway functions in terms of collisions, staff uses the overall Collision Rate (CR), expressed in collisions per million vehicle miles traveled. For the project limits along Fair Oaks Avenue, the CR is 1.72 as compared to state-wide CRs of 1.52 for roadways with characteristics similar to Fair Oaks Avenue. Staff's goal is to minimize all collisions, especially those that result in injury or death. Using the State CRs for similar type roads provides a good benchmark to evaluate how a road is functioning and whether to recommend changes. Fair Oaks Avenue CRs are slightly higher than the state-wide CRs. Center turn lanes have been shown to reduce collisions up to 50%, therefore due to the higher than average collision rate and the high vehicle volumes on Fair Oaks Avenue, removal of the center turn lane was not recommended for any segments.

Segment 1 (Old San Francisco Road to Evelyn Avenue)
This segment is two lanes in each direction with a two-way center left turn lane. Surrounding land uses are primarily residential, with Ellis Elementary School and a gas station in this corridor. Numerous driveways access Fair Oaks Avenue along this corridor. On-street parking is allowed on both sides of the roadway and average daily traffic is approximately 27,000 vehicles per day. Installation of bike lanes on this segment would require either removal of the center turn lane or removal of on-street parking.

Parking Analysis
A parking study in Attachment 3 was performed to evaluate the potential loss of on-street parking to facilitate the installation of striped Class II bicycle lanes. Counts of parked vehicles were collected during periods of peak parking demand, which are; 1) During school drop-off between 7:30 a.m. and 8:30 a.m. when parking spaces around schools are used for short-term parking; and 2) After 1:00 a.m. when peak residential use typically occurs.

On-Street Parking

There are approximately 54 on-street spaces as shown in Attachment 4, of which 41% were occupied during the count. Although there are available parking spaces on adjacent streets, they were not sufficient to accommodate all the displaced parking.

Off-Street Parking

Segment 1 of Fair Oaks Avenue from Old San Francisco Road to Evelyn Avenue has a mix of commercial, multi-family, and single family properties. This mixed use makes it difficult to analyze the available off-street parking spaces. As an example, an apartment tenant that currently parks on-street would not be able to park on a retail parking lot or a private driveway. To be conservative, available off-street parking spaces associated with all commercial uses and multi-family apartment buildings were excluded from the counts.

This parking observation was conducted during the same hours as on-street parking, but only for parcels fronting on Fair Oaks Avenue. There are approximately 51 off-street (on driveways)

parking spaces available along the portion of Fair Oaks Avenue between Old San Francisco Road and Evelyn Avenue. Out of these, 32 (63%) were found occupied. These are mostly single family home driveways, so these spaces would not be available to current multi-family/apartment building users who currently use the on-street parking.

Alternatives
The alternatives for this segment include the following:

- Design Alternative A - Installation of Class II striped bike lanes by removing on-street parking (Attachment 4)
- Design Alternative B - Installation of Class III "sharrows" while maintaining the two-way left turn lane and on-street parking (Attachment 5)
- Design Alternative C - Part time Class II bike lanes (bike lanes are only allowable on weekdays from 7:00 am to 6:00 pm, and during all other times bike lanes are converted into parking spaces)
- Design Alternative D - No project

Segment 2 (Kifer Road to Arques Avenue)
This segment is two lanes in each direction with a striped median and left-turn pockets. Surrounding land uses are residential to the east and industrial to the west. On-street parking is not permitted in this segment.

The roadway width is the limiting factor in this segment, as it is only 54' wide. No on-street parking is currently allowed. Removal of a travel lane (converting Fair Oaks from four lanes to two) was not considered so a traffic analysis was not necessary.

Alternatives
The alternatives for this segment include the following:

- Design Alternative A - Class III "sharrows" between Kifer Road and California Avenue, Class II Bike lanes between California Avenue and Arques Avenue (Attachment 6)
- Design Alternative B - Class III "sharrows" between Kifer Road and Arques Avenue (Attachment 7)
- Design Alternative C - No project

Segment 3 (Wolfe Road to Awanhee Avenue)
This segment is three lanes in the southbound direction and two lanes in the northbound direction, a middle turn lane/left turn pockets, and no parking. Surrounding land uses are primarily residential (mix of single family and high density), the Chavez Supermarket shopping center, and a gas station. No on-street parking is available. Average daily traffic is approximately 36,000 vehicles per day.

A traffic study in Attachment 8 analyzing existing and proposed traffic conditions was performed for Segment 3, to consider the removal of a southbound traffic lane to facilitate implementation of Class II striped bicycle lanes.
The Level of Service (LOS) calculations were conducted at four intersections within this segment. The intersections included Fair Oaks Avenue and Ahwanee Avenue, Fair Oaks Avenue and Caliente Drive, Fair Oaks Avenue and Duane Avenue, and Fair Oaks Avenue and Wolfe Road. Overall results showed that currently Fair Oaks Avenue at these intersections generally operates at an acceptable LOS. However, removal of one southbound travel lane (to install bike lanes) will degrade the LOS of

these intersections to an unacceptable LOS and have a unmitigable traffic impacts. Based on these impacts, removing the travel lane will require an Environmental Impact Report (EIR) which is currently not included in the scope of work.

Alternatives
Design alternatives for this segment include the following:

- Design Alternative A - Class III “sharrows” between Wolfe Road and Awanhee Avenue (Attachment 9)
- Design Alternative B - Direct staff to procure a consultant to prepare an EIR for the impact at four (4) intersections associated with the removal of one (Attachment 10) southbound vehicle lane, and re-stripe roadway to include Class II striped bike lanes
- Design Alternative C - No project

Community Meetings
The community outreach process was held with adjacent property owners and all other interested parties. To solicit feedback on the project scope and design alternatives the City held two community meetings. The first meeting was held on November 9, 2016 and 12 people attended. The second meeting was held on January 18, 2017 and 22 people attended. Staff received verbal and written feedback at these meetings, as well as via email commentary. In general, a majority of the verbal comments expressed concern regarding existing traffic congestion as well as future traffic congestion on Fair Oaks Avenue, and loss of on-street parking. Also, some comments were received regarding the importance of having a good bicycle network. At these meetings, a station was set up that allowed for a dot exercise for participants to select their preferred alternative by placing a dot next to their preferred alternatives. Results of this exercise are shown in Attachment 11 for Segment 1, and Attachment 12 for Segment 3. Results from the second community meeting are as follows:

Segment #	Alternative A	Alternative B	Alternative C	Alternative D
1	4 votes (18%)	2 votes (9%)	3 votes (13.5%)	13 votes (59.5%)
2*	N/A	N/A	N/A	N/A
3	2 votes (9%)	5 votes (23%)	15 votes (68%)	N/A

*The alternatives for Segment 2 were not presented for voting at the meeting and voting results are not available.

A total of 13 emails were received from the public providing input on the project. Four emails or 31% showed support for the project, and nine emails or 69% displayed opposition towards the project as a whole; the opinions do not differentiate by segments.

Considerations
Staff considered the following factors as part of the proposed recommendation:

- Fixed curb-to-curb width - no road widening
- A high vehicular volume on Fair Oaks
- On-street parking utilization
- Community input
- Requirement of an EIR for removal of one southbound lane in Segment 3, between Wolfe Road and Ahwanee Avenue
- Existing collision rates - Removal of the middle turn lane or the southbound lane in Segment 3 will result in additional congestion and is likely to increase the higher than average existing

collision rate along Fair Oaks Avenue
- Irrespective of which alternative is selected, bicycle detection equipment will be installed at all the signalized intersections

FISCAL IMPACT

The project is part of the capital program (project number 831110). The current budget available for the project is $1.21 million which includes the OBAG funding. Depending on the final recommendations, additional funds may be required for the project. Those funds would either need to be added to the project, or the project must be constructed in phases. Should the selected alternative require additional funding beyond the project budget, staff will bring forward a budget modification for City Council consideration at the award of construction contract.

Should the direction be to pursue an EIR for removal of the third southbound vehicle travel lane in segment 3, additional funding will be required. This will not be covered by the OBAG grant previously procured for the project so an additional City funding source would be required.

PUBLIC CONTACT

Public contact was made through posting of the Bicycle and Pedestrian Advisory Commission agenda on the City's website, and the availability of the agenda and report in the Office of the City Clerk.

Public contact was also made by mailing a community flyer to adjacent residents within 1,000 feet radius of the project boundary. The first community meeting was held on November 9, 2016, 6:30 pm, and the second community meeting was held on January 18 to receive public input of the alternative concepts. Attachments 13 and 14 include full meeting minutes and comments received at each meeting.

ALTERNATIVES

1. Approve Segment 1 and 2 - Design Alternative B - Installation of Class III "sharrows" in both directions and for Segment 3 Design Alternative A - Installation of Class III "sharrows" in both directions.

Segment 1: Between Old San Francisco Road and Evelyn Avenue

- Design Alternative A - Installation of Class II striped bike lanes in both directions by removing on-street parking
- Design Alternative B - Installation of Class III "sharrows" in both directions while maintaining the two-way center turn lane and on-street parking
- Design Alternative C - Part time Class II striped bike lanes in both directions (bike lanes are only allowable on weekdays from 7:00 am to 6:00 pm, and during all other times bike lanes are converted into parking spaces)
- Design Alternative D - No project

Segment 2: Between Kifer Road and Arques Avenue

- Design Alternative A - Class III "sharrows" in both directions between Kifer Road and California Avenue, Class II bike lanes in both directions between California Avenue and Arques Avenue
- Design Alternative B - Installation of Class III "sharrows" in both directions between Kifer Road

and Arques Avenue
- Design Alternative C - No project

Segment 3: Between Wolfe Road and Ahwanee Avenue
- Design Alternative A - Installation of Class III “sharrows” in both directions
- Design Alternative B - Direct staff to procure a consultant to prepare an EIR for the impact at four (4) intersections associated with the removal of one southbound vehicle lane, and re-stripe roadway to include Class II bike lanes in both directions
- Design Alternative C - No project

2. Recommend City Council to not install bicycle amenities to connect Fair Oaks Avenue from US 101 to Old San Francisco Road and proceed as otherwise directed by Council.

STAFF RECOMMENDATION

Recommend Council approve Alternative 1: Approve Segment 1 and 2 - Design Alternative B - Installation of Class III “sharrows” in both directions and for Segment 3 Design Alternative A - Installation of Class III “sharrows” in both directions.

Staff believes the installation of Class III bike lanes throughout the project limits on Fair Oaks Avenue will promote safe and consistent roadway user behavior in addition to meeting the City’s bicycle and General Plan goals.

In segment 1 (Old San Francisco Road to Evelyn Avenue), high utilization of on-street parking and collision rate history are not conducive to elimination of either on-street parking or the two-way center left turn lane to achieve Class II striped bicycle lanes. The option of having part-time bike lanes is not an ideal option since it will eliminate day time use of on-street parking spaces, and defeats the goal of maintaining the consistency of bike lane layout throughout the project limits. Therefore, staff recommendation is for Design Alternative B: Install Class III “sharrows” in both directions. Staff does note that removal of parking to install bike lanes can be reconsidered in the future. Once the Fair Oaks bridge is constructed installing bike lanes in this segment could be beneficial as it would provide a longer bike lane segment with better connectivity.

In segment 2 (Kifer Road and Arques Avenue), the installation of striped Class II bicycle lanes is not achievable within current roadway width limitations without adjustments made to the existing curbs and gutters. Staff recommendation is for Design Alternative B: Installation of Class III “sharrows” in both directions.

In segment 3 (Wolfe Road to Ahwanee Avenue), installation of Class II striped bicycle lanes requires elimination of the third southbound lane. Lane elimination requires additional analysis via an EIR to disclose traffic impacts. Evaluation of this scenario is not part of the current project. Staff recommendation is for Design Alternative A: Installation of Class III “sharrows” in both directions.

Overall, installation of Class II bike lanes on Fair Oaks is difficult as there are segments that would require lane removals, traffic impacts, parking removals, or road widening. Considering the constraints, the Fair Oaks corridor should be reviewed as part of the upcoming update to the bike masterplan to determine if it should continue to be priority North-South bicycle corridor. There could be other North-South opportunities that could be more suitable for riders of all skills and ages. Also,

once the Fair Oaks bridge widening is completed (with bike lanes), the City could reconsider Segment 1, as it could help provide continuous bike lane connectivity on a much larger segment of Fair Oaks.

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ATTACHMENTS

1. Reserved for Report to Council
2. Bicycle Network near Fair Oaks Avenue
3. Parking Study Report
4. Segment 1 Alternative A
5. Segment 1 Alternative B
6. Segment 2 Alternative A
7. Segment 2 Alternative B
8. Traffic Study Report
9. Segment 3 Alternative A
10. Segment 3 Alternative B
11. Dots Exercise for segment 1
12. Dots Exercise for segment 3
13. Community Meeting #1 Minutes
14. Community Meeting #2 Minutes