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CITY OF OAKLAND
AGENDA REPORT

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TO: Office of the City Administrator
ATTN: Deborah Edgerly
FROM: Community and Economic Development Agency
DATE: February 26, 2008

RE: **Informational Report Concerning The Proposed Traffic Signal At
The Intersection Of Mountain Boulevard At LaSalle Avenue In The
Montclair District**

SUMMARY

In November 2007, two residents, representing a larger group from the Montclair District, requested that the City Council reconsider its prior approval of the Mountain Boulevard/LaSalle Avenue traffic signal, and reallocate funds to another location on the City's signal priority list. This request was brought to the Rules and Legislation Committee, who directed staff to meet with the community members and prepare a report to the Public Works Committee. This report summarizes the background of the initial recommendation for a signal at the subject location, as well as discussions with community members.

FISCAL IMPACT

Since this is an informational report, no financial impact to the City is identified.

BACKGROUND

In early 2007, staff informed the community, the Montclair Village Association (MVA) and Montclair Safety Improvement Committee (MSIC), through the Council Office, about the proposed traffic signal project. The first presentation was made at a MVA meeting in February 2007 in the Montclair shopping district. Two additional public presentations were made in the Montclair District later in the year. Among other items, some community members expressed concerns that the proposed signal would change the characteristics of the neighborhood, and as a result would not be desirable. Staff worked with the community and enlisted the help of an independent consultant with expertise in context-sensitive design to address community concerns. However, some members of the community continued to voice opposition to the signal installation. As a result, two residents representing the Montclair District requested that the City Council reconsider its prior approval of the Mountain Boulevard/LaSalle Avenue traffic signal, and reallocate funds to another location on the City's signal priority list.

The first request for a traffic signal at the intersection of Mountain Boulevard at La Salle Avenue was made in June of 1970 by the Montclair Business Association (MBA). Another request was made by the MBA in 1974. Investigation and studies pertaining to both requests did not

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recommend signalization because the intersection did not meet the minimum thresholds for signal installation at that time. Currently the intersection has all-way stop signs that were installed in 1978 to address community safety concerns. At locations with high vehicle and pedestrian interaction, the installation of all-way stop signs is a precursor to a traffic signal. The location was periodically re-validated for signalization. In 2004, the intersection met the threshold criteria and ranked among the top four locations on the City's signal priority list and was programmed for funding in the 2005-2007 budget cycle. The intersection was selected for signalization based upon the City's signal need prioritization criteria adopted by the City council in 2004. In addition the intersection meets three of the eight Caltrans warrants for intersection signalization. According to Caltrans guidelines, meeting only one warrant is sufficient for consideration of a traffic signal.

KEY ISSUES AND IMPACTS

Mountain Boulevard at La Salle Avenue was recommended for signalization for the fiscal year 2006-2007 based upon the City's traffic signal prioritization system and Caltrans guidelines. The signal at this location would address the considerable pedestrian and vehicle traffic on the streets, and thereby improve safety and circulation for both modes of travel. An evaluation of current conditions confirms that installation of a signal at this location is warranted.

At the beginning of 2007, when staff shared the information about the proposed traffic signal with the community in the Montclair District, there was some opposition voiced. The primary concern expressed was that the signal could bring drastic change to the area aesthetics and quality of life. Some also expressed an opinion that the signal could worsen the intersection operation, resulting in congestion at times, and increased speeding at other times. Staff made two additional presentations to the community to share information and to answer concerns. Some of the questions and concerns expressed by the community during the meetings and the responses from the staff are as shown in Attachment A.

At the direction of the Rules and Legislation Committee, staff met with four representatives of the Montclair District in December 2007, and discussed the proposed traffic signal, alternatives to a signal, and context-sensitive design to address the community concerns. The responses to questions from the community representative that attended the December 2007 meeting are in Attachment B.

Staff believes that by using a context-sensitive approach, aesthetic elements can be incorporated at this intersection to mitigate the concern of traffic signal installation, and still retain Montclair's "village" atmosphere while improving pedestrian and traffic safety. These elements include bulbouts and decorative signal poles that can match the plans underway for streetscape improvements in Montclair Village. Further, the traffic signal can be programmed to operate in a variety of ways to address concerns of backups or speeding. This location could also be programmed for an all-pedestrian "scramble" phase during periods of high pedestrian activity, similar to the Webster/8th intersection in Chinatown.

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Staff considered various alternatives for traffic calming at the intersection, but functionally none of the alternatives could substitute for a traffic signal whose primary function is right-of-way assignment. The list of various alternatives considered is listed in Attachment C.

Although there was not agreement by the community representatives regarding the need for the traffic signal, there was agreement by all parties that a comprehensive transportation master plan that would address pedestrian and bicycle access and safety, improved transit access and circulation, parking and vehicle circulation would be a valuable tool. Staff estimates that such a master plan could cost in the range of \$100,000.00 to \$200,000.00. Such a study would address concerns throughout the area, but is not needed to confirm the necessity of the subject signal.

Design of the signal is currently on hold, pending discussion before the Public Works Committee. Staff will continue design work after this item is presented and will coordinate efforts with streetscape improvements proposed by the Montclair Village Association.

PROJECT DESCRIPTION

To address the issues and concerns brought up by the community, staff proposes to include specific features in the traffic signal project at Mountain Boulevard and La Salle Avenue. Decorative signal poles will address the concerns regarding aesthetic compatibility, and curb bulbouts will increase the sidewalk area, making pedestrians more visible as well as reducing crossing distance. In addition, the signal will operate in an exclusive scramble pedestrian mode during the day and other peak hours to improve safety and access for pedestrians by providing a *protected time period for crossing in all directions, including diagonally.*

A vehicular video detection system will minimize unwarranted delay for traffic during off peak hours, while still not permitting traffic to speed through the intersection during hours of light traffic. Audible and tactile pedestrian push buttons with curb ramps will improve accessibility for elderly persons and persons with disabilities.

SUSTAINABLE OPPORTUNITIES

Economic: Project implementation will provide the opportunity to use local contractors that offer employment to Oakland residents, thereby strengthening the local economy.

Environmental: The project will improve pedestrian safety and encourage walking, thereby reducing vehicle emissions, noise pollution, and fuel consumption. The City's construction contract guidelines encourage the use of recyclable materials and waste reduction.

Social Equity: This project will provide greater accessibility and safety to persons who depend on walking and public transit to access jobs and services, such as senior citizens, persons with disabilities, and children.

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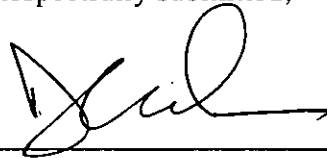
DISABILITY AND SENIOR CITIZEN ACCESS

This project includes accessibility improvements such as combined audible and tactile pedestrian pushbuttons and wheelchair ramps with detectable warning domes to assist persons with disabilities and seniors alike.

RECOMMENDATION AND RATIONALE

Since this is an informational report, no recommendation is presented.

Respectfully submitted,



Dan Lindheim
Director
Community and Economic Development Agency

Reviewed by:
Michael J. Neary, P.E.
Deputy Director, Community and Economic
Development Agency

Prepared by:
Ade Oluwasogo, P.E.
Supervising Transportation Engineer
Transportation Services Division

APPROVED AND FORWARDED TO THE
PUBLIC WORKS COMMITTEE:



Office of the City Administrator

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**Questions and Answers From the Community Meetings Regarding the proposed
Traffic Signal at Mountain Boulevard / La Salle Avenue**

Introductory Comments:

The traffic signal at Mountain/LaSalle was programmed during the 2005-2007 budget cycle, and approved and funded by the City Council as part of the City's Capital Improvement Program (CIP) in June 2005.

The intersection was programmed for budget based on the City Council approved the criteria for prioritizing the installation of traffic signals in May 2004. The criteria take into account a combination of factors, namely:

- Vehicular volumes
- Interruption of continuous traffic
- Pedestrian volumes
- Accident Data
- Other, site specific or special conditions which may need evaluation

Based upon these criteria, the intersection of Mountain/LaSalle was ranked as one of the top locations citywide.

The Traffic Signal Priority List is updated periodically to respond to community requests, and to proactively evaluate intersections with high accident histories or with significant changes due to development since the intersection was last evaluated. These periodic re-evaluations of intersections can result in changes to the rankings on the Citywide Traffic Signal Priority List. The questions from the Montclair Community and answers from staffs are as follows:

- **Question: How are decisions made to identify which intersections need signals?**

Answer: The City selects intersections for new traffic signals based on a technical evaluation, commonly following a citizen request (*this location was initially evaluated in 1970, based on a community request for evaluation of need for a traffic signal*). Each intersection is evaluated based on its geometric/lane configurations, vehicular speeds, traffic volumes, pedestrian volumes, and number of correctable accidents. The resulting score is used to establish ranking. In addition to the signal priority system, the City also uses standard Caltrans signal warrants to show consistence with the State requirement.

Intersections with high ranking (within the top 10) are considered for signalization provided funds are available. The Community and Economic Development Agency, has evaluated over 300 intersections on the signal priority system.

- **Question:** In other areas where signals have been installed, have you seen a decrease in traffic incidents?
Answer: Yes. At six intersections where signals were installed between 1999 and 2005, there were about 90% reductions in vehicle-pedestrian accident and 43% reduction in vehicle-vehicle accident..

- **Question:** How will the signal affect the diagonal parking along La Salle, both uphill and downhill from the intersection?
Answer: There would be no additional impact to parking, since the curb lines would not be altered; however, if bulbouts are built at the same time as the signal, modifications to the parking may be necessary.

- **Question:** If a signal is installed, will it cause cars to back uphill into the parking garage, or downhill blocking the busy stretch of La Salle?
Answer: Signals can be timed in a way that will avoid/minimize backup. A traffic signal would not create any more delay than occurs now with the stop signs, but it will minimize delay while providing higher level of safety than stop signs.

- **Question:** How will the signals be located in conjunction with our clock?
Answer: The new signal poles and signal heads would be designed and located to provide clear visibility for all users including motorists, bicyclists, pedestrians, and transit vehicles, if any. The design engineer would avoid any potential conflict with the clock.

- **Question:** Can the proposed sidewalk "bulbouts" be included in the project to reduce the distance pedestrians must walk to cross the street?
Answer: Yes, some bulbouts can be included as part of the traffic signal installation. Additional funding would need to be identified.

- **Question:** If bulbouts are installed, will they improve visibility for cars making a turn at the intersection.
Answer: Bulbouts are primarily used for pedestrian distance reduction, and at the same time, may improve visibility for turning cars while making turning right a bit more difficult as well, which will further slow traffic down.

- **Question:** In other areas where bulbouts have been installed, has safety been improved?
Answer: Bulbouts are expected to improve pedestrian safety since they increase motorist's visibility of pedestrians, shorten the crossing distance for pedestrians, and hence reduce the length of time pedestrians and vehicles conflict.

- **Question:** Can the bulbouts proposed for the Antioch Court & Mountain intersection, and for the La Salle and Moraga intersection be included in the project?
Answer: Yes, bulbouts can be installed concurrently; the funding for the bulbouts still needs to be identified.
- **Question:** Will there be an opportunity for the general public to discuss and comment on the signal project?
Answer: Yes; Public Works (*now CEDA Transportation Services*) attended a Montclair Village Association meeting on February 7, 2007 to discuss the project, and thanks to the MSIC and Councilmember Quan's office, we will have the opportunity to make a presentation and answer questions on April 23, 2007 at Montclair Elementary School. In addition, the public may call 238-3466 and inquire about the signal project or submit written questions to Transportation Services Division.
- **Question:** The sidewalk between the parking garage and the corner outside Raimondi's has been marked for repairs. Will the signal and bulbout project be coordinated with re-paving the sidewalk?
Answer: The repair of sidewalk at these locations is due to hazards associated with tree roots that are unrelated to the signal project. This work is scheduled to be done by the middle of May of this year.

**Response to
Community Letter Dated 12/6/07**

Question and Answers:

- **Question:** Despite multiple requests to your office and to TSD, we have not been furnished documentation detailing the prioritization of this intersection. Specifically, these documents are:
Answer: TSD received a request from you on 9/21/07 and a follow up request on 10/16/07. TSD submitted two response letters dated 10/10/07 and 10/29/07 to you. Your requested documents are attached to the two letters. There were the two requests we received which we responded to with attached documents.
- **Question:** Public Works Agency's Request to City Council for Resolution Authorizing Mountain Blvd./La Salle Ave. Traffic Signal. (Date unknown)
Answer: "Resolution Authorizing A Biennial Budget....." dated June 21, 2005, and the "City of Oakland Adopted Capital Improvement Program 2005-2010" were sent to you as a part of the TSD letter dated 10/10/07.
- **Question:** Public Works Agency's (Transportation Services Division) Citywide Traffic Priority Lists (Vehicle and Pedestrian) showing the ranking of Mountain Blvd. and La Salle Ave. Intersection. (Date unknown)
Answer: "Supplemental Report... on the Citywide Traffic Signal Priority List" dated March 29, 2004 was sent to you as a part of the TSD letter dated 10/10/07.
- **Question:** Final City Council Resolution Authorizing the Mountain Blvd./La Salle Ave. Traffic Signal (City Clerk's Office has no record of this Resolution)
Answer: This document does not exist.
- **Question:** It is not clear how this intersection is now prioritized as the most dangerous in Oakland when TSD's Citywide Traffic Priority List (Vehicle), dated on or about 1 April 2004, lists the intersection as number 19 and TSD's Citywide Traffic Priority List (Pedestrian), dated on or about 1 April 2004, does not list the intersection among the first 47.
Answer: It was not stated or implied that the intersection is the most dangerous in Oakland. The citywide traffic signal priority list is periodically updated to respond to community requests, and to proactively evaluate intersections with higher than typical accident rate or with significant changes in vehicular traffic and pedestrian activities due to development since the intersection was last evaluated. These periodic re-evaluations of intersections often result in changes in the rankings on the citywide traffic signal priority list, but this does not mean that intersections that rank high are the most dangerous in Oakland. Factors considered when evaluating the need for signals include accident data, but also

include the volumes of pedestrian and vehicles, as well as the delays experienced by each.

A traffic signal is the most appropriate and effective traffic control device at those intersections which have received top ranks in the citywide traffic signal priority list. After top ranked intersections are budgeted for signalization, they are removed from the traffic signal priority list, and the remaining intersections are re-ranked accordingly.

Comment: An independent professional traffic engineer has reviewed the documentation TSD has provided. He notes the following inconsistencies in the Warrants for this intersection:

- **Question 1.** Eleven accidents reported in the five-year period 6/30/1999-6/30/2004. This conflicts with the Collision Diagram, dated 26 September 2007, which shows only three accidents during this five-year time period. A Collision Diagram required for a signal warrant analysis should only cover a three-year period. Accidents from eight or nine years ago should have no bearing on the analysis

Answer: The 11 accidents from 1999 to 2004 accounts for all collisions. The collision diagram dated 2007 only accounts for collisions involving pedestrians. The standard methodology employed by TSD to evaluate need for a new traffic signal uses five years of accident data.

- **Question: 2.** Two Correctable Accidents are not unusual and would not be enough to meet the Warrants. One correctable accident in a 12-month period is well below average. Warrants normally require five or more correctable Accidents in one year for a signal to be warranted based on safety alone.
Answer: At the time of the signal need study at Mountain Boulevard/La Salle Avenue, TSD identified three correctable accidents in a five-year period. This data was used as a part of the mathematical equation, not independently, in the City's standard methodologies leading to a ranking system. Methodologies and criteria used by TSD serve a different purpose from the Caltrans signal warrant worksheets. Caltrans requires five independent correctable accidents in a 12-month period to satisfy Traffic Signal Warrant 7, and there is no relative ranking involved. The City's system evaluates locations and assigns them relative rankings, whereas the Caltrans warrants are a "pass" or "fail" test. The subject intersection passes three warrant tests.
- **Question: 3.** Warrant Worksheet 1 shows three different count dates, going back as far as 7 March 1990. Hourly counts should come from one average day, thus the count sheet does not seem to meet the Manual of Uniform Traffic Control

Devices Warrant Analysis requirements.

Answer: The count data you provided is of limited use for the following reasons. Your 2007 vehicular counts are for one hour only from 8 to 9 am and 5 to 6 pm on a Monday and Friday. Traffic counts on Fridays and Mondays are not representative of typical weekdays and are not used in traffic analysis. TSD standard methodologies use 24-hour traffic volume counts on a weekday (Tuesday, Wednesday or Thursday), not one-hour counts on a Monday or Friday. The California MUTCD warrant worksheet requires eight hours of counts, not one hour. The use of lesser traffic volumes from 8 to 9 am (that are comparable to your traffic counts) would not alter the findings under the TSD signal need study nor under the California MUTCD signal warrant analysis.

Your 2007 pedestrian counts were for one hour only from 8 to 9 am and 5 to 6 pm on a Monday and Friday. Pedestrian volume usually peaks in the mid-day, not during commute hours, as confirmed by TSD's counts taken in 2007. Note that your 2007 pedestrian counts are substantially lower than our mid-day counts.

- **Question 4:** The warrant analysis seems to assume that the signal would include control of left-turns on one or more approaches to the intersection. This is simply not the case.

Answer: The signal need study per City standard methodologies and the signal warrant analysis per California MUTCD assists the traffic engineer to determine if a new traffic signal should be recommended. Signal warrant analysis is not a tool to design traffic signal phasing or timing parameters.

- **Question 5:** Bulb-Outs, if designed properly, are a good idea with or without a traffic signal.

Answer: Small bulbouts will be considered. Large bulbouts may hinder turning traffic.

- **Question 6:** Even with a traffic signal, right and left-turning accidents with pedestrians would not be considered correctable since with a signal in place motorists would not necessarily have to stop before turning across an adjacent crosswalk (as they do now) if they are given a green light.

Answer: Scramble signal will be used. This will provide an exclusive signal phase for pedestrian crossings in all directions.

- **Question 7:** Rankings based on outdated traffic and accident data can clearly lead to

erroneous conclusions thus subjecting the City to liability.

Answer: This issue is already addressed above. See answers to questions 1 and 2 above. The accident data is adequate.

- **Question 8:** It is not far fetched that a traffic signal will result in more danger than a four-way stop as motorists will drive through the intersection at the permitted speed limit or above, attempt to “beat the light”, and pedestrians will tend to jay walk with the light on red and traffic light.
Answer: Compared to all-way stop signs, a traffic signal provides safer and more efficient traffic control in assigning right-of-way and providing safe crossing at an intersection. Whether an intersection is controlled by stop signs or a signal, it is not practically feasible to design traffic control devices that can anticipate violations by drivers or pedestrians. It is TSD staff's professional opinion that a traffic signal with a dedicated pedestrian phase (i.e. scramble), with all vehicle approaches stopped, will offer maximum safety and convenience for pedestrians.
- **Question 9:** Warrant Worksheet 1 indicates vehicle volume of 934 between 8:00 AM and 9:00 AM on Mountain Blvd. A recent count by myself and Montclair resident Jim Dexter for this time period on a Friday and a Monday show a count of 448 vehicles, less than half that shown on the Warrant. Whereas the Warrant Worksheet shows 690 vehicles between 5:00 PM and 6:00 PM, our count shows only 438. These discrepancies would seem to clearly indicate that new official counts should be done.
Answer: This issue is already addressed above, see response to question #3.
- **Comment:** The citizens of Montclair are as concerned as anyone at City Hall to have a safe environment in the Montclair Village. We greatly appreciate your willingness to search for alternative solutions with the help of your constituents to maintain the ambiance of the Village and provide safe streets for everyone.
Response: Comment is noted.

Alternative Traffic Control Device

Speed Table or Traffic Circle

Speed tables and traffic circles are used for vehicular speed control through uncontrolled intersections with adequate terrain for drainage and substantial area for vehicular turning movement. However, this device does not provide for right-of-way assignment necessary for vehicular and pedestrian movements required at intersections such as Mountain/La Salle with high pedestrian interacting with vehicular traffic. Therefore this device is not a replacement alternative for a traffic signal, which has the primary function of right-of-way assignment while minimizing delay for pedestrians and motorists.

Bulb-Out

When installed properly, bulb-outs serve the purpose of reducing the crossing distance of a street, also reducing the amount of time required to cross. Field observations indicate that bulb-outs could be installed at the subject intersection. However, bulb-outs alone at this location would not significantly reduce pedestrian crossing time. In any event, bulb-outs alone are not a functional substitute for a traffic signal at this intersection. Bulb-outs can, however, be installed in conjunction with a traffic signal, further enhancing the intersection for pedestrians. The purpose of a traffic signal is primarily to assign right-of-way to vehicular, bicycle and pedestrian traffic. Clear right-of-way assignment is beneficial for pedestrian safety, especially the senior and disabled community. Although stop signs exist at the intersection, pedestrian safety remains an area of concern as evidenced by two recent pedestrian-vehicle accidents.

Other Traffic Control Devices

Other traffic calming devices that were considered include flashing beacons, in-pavement lights, additional signing and pavement markings. None of these devices provides a safety function equivalent to a traffic signal.