



Staff Report

PUBLIC HEARING TO CONSIDER IMPLEMENTATION OF AN AUTOMATED RED LIGHT PHOTO ENFORCEMENT PROGRAM

Honorable Mayor and Council Members:

Summary

This report is the sixth staff report and the fifth update on the Automated Red Light Photo Enforcement Project, which was initially brought before Council at the February 14, 2006 City Council Meeting. It specifically provides an update on action taken in response to Council direction given in response to the prior update at the April 10, 2007 City Council Meeting. As this report is presented as a public hearing, it fulfills the requirements set forth in section 21455.6(a) of the California Vehicle Code, which states *a city council or county board of supervisors shall conduct a public hearing on the proposed use of an automated enforcement system authorized under Section 21455.5 prior to authorizing the city or county to enter into a contract for the use of the system.*

Background

At the February 14th, 2006 City Council Meeting, Staff presented an informational report on Automated Red Light Photo Enforcement. That report outlined how such systems work, their benefits to the City and potential locations where such a program could be implemented. Direction was given by Council at that meeting to continue to pursue the matter and to bring back additional information for potential implementation.

Since it has been almost 18 months since that initial report and this current report is being presented as a public hearing, the following is a brief outline on how Automated Red Light Photo Enforcement Systems work:

How Automated Red Light Photo Enforcement Systems Work

The violation is captured by digital still and video cameras at the intersection. The violation is sent electronically to the vendor who assembles the information. An employee at the police department logs onto the vendor's web site and checks for violations. Each violation is reviewed and then either accepted for citation, accepted for nomination (i.e. unable to confirm driver identification) or rejected. If accepted for citation, the vendor notifies the Traffic Division of the San Mateo Superior Court and the driver of the vehicle.

Drivers have an opportunity to view the video of their violation at the police department or go on-line to the vendor's website. Drivers wishing to contest their citation can dispute it through the normal traffic court system, as with any other citation.

Based on the direction received at the February 14, 2006 Council meeting, three vendors were contacted to give initial presentations to staff. Those presentations were as follows:

- April 5, 2006 – Redflex Traffic Systems
- April 25, 2006 – American Traffic Solutions (ATS)
- May 4, 2006 – Nestor Traffic Systems

Staff reported back to Council at the June 27, 2006 Council meeting and at the conclusion of that report, Staff recommended that the Council approve continued discussions with Nestor Traffic Systems as a potential vendor for Automated Red Light Photo Enforcement system(s). Direction was given by Council at that meeting to continue to pursue the matter and to bring back additional information for potential implementation, including a presentation to Council by Nestor Traffic Systems.

Staff provided an update to Council at the July 25, 2006 Council meeting, which included a presentation from representatives of Nestor Traffic Systems. At the conclusion of that presentation, Staff recommended that the Council approve continued discussions with Nestor Traffic Systems as a potential vendor for Automated Red Light Photo Enforcement system(s). Council directed staff to proceed with Nestor Traffic Systems regarding data collection for the potential implementation of an automated red light citation program.

At the December 12, 2006 City Council Meeting, Staff reported that as a result of research, the Finance Director concluded that because of on-going financial challenges faced by Nestor Traffic Systems, a continued business relationship with the company is not in the best interest of the City. Staff reported a potential for an undetermined negative fiscal impact relating to the selection of Nestor Traffic Systems as the vendor for this project. Initial discussions with the alternative vendor, Redflex Traffic Systems, show no such potential. Council approved discontinuation of discussions with Nestor Traffic Systems as a potential vendor for Automated Red Light Photo Enforcement system(s) and directed Staff to continue discussions and data collection with Redflex Traffic Systems.

At the April 10, 2007 City Council Meeting, Staff reported that since the December 12, 2006 meeting, Staff has worked with Redflex Traffic Systems regarding data collection at two intersections, Ralston Avenue and El Camino Real and Ralston Avenue and Old County Road. On February 1, 2007 Redflex Traffic Systems conducted video intersection analysis at the following intersections/approaches for a 12 hour period (6:00AM to 6:00 PM). A summary of the results are as follows:

S/B Old County Rd at Ralston Ave

- 89 Right turn violations

W/B Old County Rd at Ralston Ave

- 11 Straight Through Violations
- 67 Right Turn Violations

E/B Ralston Ave at El Camino Real (SR -82)

- 2 Left Turn Violations
- 10 Straight Through Violations
- 16 Right Turn Violations

W/B Ralston Ave at El Camino Real (SR-82)

- 13 Straight Through Violations
- 26 Right Turn Violations

On March 20, 2007, Staff met with representatives of Redflex Traffic Systems to discuss the study report and their proposal for Automated Red Light Photo Enforcement in the City of Belmont. In addition Redflex provided the following revenue projection based on two systems using data which is typical for California Redflex systems. A more detailed presentation and explanation of the study report and the Redflex proposal was provided by a representative of Redflex Traffic Systems during the meeting.

Redflex currently operates or has contracts pending in several San Mateo County cities.

- San Mateo
- Burlingame
- Daly City
- San Carlos
- Redwood City
- Menlo Park

Discussion

At the April 10, 2007 City Council Meeting, staff was directed continue discussions with Redflex, as the proposed vendor for this project. Since that meeting, additional research has been conducted into various areas of concern expressed by the Council.

Calls for Service vs. Staffing

Traffic related issues continue to be one of the major concerns of the residents of Belmont. Traffic volume continues to increase while Police Department resources to monitor and regulate traffic have been reduced. Currently, there are two officers assigned to the Traffic Unit as motor officers. Due to staffing issues, frequently one or both of these officers are required to cover a patrol beat, which takes them away from dedicated traffic enforcement.

Police calls for service have increased steadily from 21,559 in 2003 to 23,605 in 2005. This is in conjunction with the increased number of Felony and Misdemeanor Crime Reports to the Department. Since 2003 the Department lost eight positions while staffing decreased by 15.6% and calls for service increased by 8.7%. This results in less officer time available for traffic enforcement.

At this time the department is down five (5) officer positions and one of the two traffic officers has been re-assigned to a patrol team to cover a vacancy. Installation of Automated Red Light Photo Enforcement Systems at a selected intersection(s) would allow for the re-deployment of limited traffic officer resources, while maintaining 24/7 enforcement at the intersection(s).

Collision Data

Year	Collisions at Ralston/El Camino	Collisions at Ralston/El Camino with PCF 21453a CVC
2005	4	2
2006	6	0
2007 (Jan-June)	3	1

Year	Collisions at Ralston/Old County	Collisions at Ralston/Old County with PCF 21453a CVC
2005	8	0
2006	7	3
2007 (Jan-June)	2	0

Citation Data

In the initial Staff Report on this project, citation data for the intersection of Ralston and El Camino was presented. By itself, red light running is one of the most hazardous traffic violations. Due to the physical layout of both El Camino & Ralston Ave and Old County Rd & Ralston, monitoring and enforcement of red light violations is difficult and potentially hazardous to the Officer, violator and motoring public.

Year	21453(a) CVC Ralston/El Camino	21453(a) CVC City Wide	Total Moving Citations/Warnings
2005	94	180	3374
2006	93	146	3523
2007 (Jan-June)	28	43	1954

Year	21453(a) CVC Ralston/Old County	21453(a) CVC City Wide	Total Moving Citations/Warnings
2005	33	183	3374
2006	14	146	3523
2007 (Jan-June)	2	43	1954

Current traffic volume and projected traffic volume increase

El Camino Real (SR-82) & Ralston Ave:

- El Camino: Approx. 34,000 vehicles per day
- Ralston: Approx. 29,722 vehicles per day

Old County Rd & Ralston Ave:

- Old County Rd: Approx. 8,887 vehicles per day (SM-Ralston 11,591 / Ralston-SC 6,183)
- Ralston Ave: Approx. 32,352 vehicles per day

As of this staff report, the Bay Meadows redevelopment project in San Mateo is still moving forward. Section 4.3 of the *Bay Meadows Phase 2 and Transportation Corridor Plan* states:

- “Impact Traffic-BM11: Development of the Bay Meadows project would result in increases in traffic delays at the intersection of El Camino Real and Ralston Avenue during the AM and PM peak hours under cumulative conditions. This would be a significant impact.”
- “Impact Traffic-CP2: Development associated with Scenarios A and Z of the proposed Corridor Plan would result in substantial increases in traffic delays at the intersection of El Camino Real and Ralston Avenue in the PM peak hour. This would be a significant impact. Under General Plan 2020 conditions, the intersection of El Camino Real and Ralston Avenue would operate at LOS F with 96.4 seconds of delay in the AM peak hour and 94.4 seconds of delay during the PM peak hour. Corridor Plan A would result in LOS F with an increase in delay of 15.6 seconds in the PM peak hour. Corridor Plan Z would result in LOS F with an increase in delay of 9.1 seconds in the PM peak hour. Since the intersection would operate at LOS F and the increase in delay would be more than four seconds, development under both Corridor Plan scenarios would result in a significant impact at this intersection during the PM peak hour.”
- “Mitigation Measure Traffic-CP2: The City shall require applicants for appropriate projects within the Corridor Plan Area to implement a TDM program to minimize traffic associated with their project. With implementation of TDM measures, the impact could be reduced, but not to a less than significant level. TDM measures typically can reduce trip generation by 10-15 percent. Added traffic delay would still exceed four seconds. Because the intersection is constrained by development on all sides, widening of either El Camino Real or Ralston Avenue, in a manner that would substantially lessen the delay at this intersection is not feasible.”

Impact on bicycle traffic

Recently, Staff had a meeting with representatives of the Peninsula Bicycle & Pedestrian Coalition. Old County Rd in Belmont is listed as part of the Coalition’s San Mateo County North-South Commuter Bike Route. Ralston Ave, from Hiller St to Alameda is also a significant portion of that route. During the meeting concerns regarding conflicts between vehicle traffic and bicycles were discussed and the issue of “right turns on red lights” was specifically mentioned. Right turn on red violations were noted at both El Camino & Ralston and Old County & Ralston in the 12 hour survey conducted by Redflex.

Potential driver behavior change

SMPD reports that approx. six months after installation of an automated red light photo enforcement system, red light violations decrease by approx. 12% for straight through and left turn violations. However, that decrease does not appear permanent and violations will begin to increase and then decrease, in a cyclical pattern. No change has been noted in right turn on red violations. Since the inception of the program in 2004, San Mateo has seen an overall drop in violations of 24%.

Visual Impact

Since the inception of this project, the issue of the visual impact of the system has been of great importance and has been a significant part of the evaluation criteria. The system proposed by Redflex for Belmont, is their Slimline Series. This equipment has the smallest system footprint available. The camera and lighting units can be mounted to a free-standing pole or existing infrastructure and do not require the large pole-mounted housing seen in the initial installations in the City of San Mateo. The system controller is significantly smaller than the ground mounted cabinets seen in initial installations in the City of San Mateo and can be mounted up to 300' from the intersection (see Attachment "A"). System components can be painted to match existing poles and or other surroundings as needed, to aid in lessening visual impact.

General Plan/Vision Statement

Establishment of an Automated Red Light Photo Enforcement Program furthers the Belmont Vision Statement, adopted October 2003 as outlined below:

Key Value - Easy Mobility

- We put a priority on getting out of, into and through town efficiently.
- Bicyclists, walkers, and other nondrivers get where they're going easily and safely.
- We require safe residential streets and smooth-flowing thoroughfares.

Fiscal Impact

The City of San Mateo was the first city in the county to adopt automated red light photo enforcement and their system has been in operation since 2004. Because of this, data from San Mateo as well as from the San Mateo County Municipal/Superior Court was used to calculate the fiscal impact of the program.

The average reject rate is of 39.26% (based on the 4th quarter of FY 07). The reasons for rejection broke down as follows:

- Driver obstruction 12%
- Plate obstruction 4%
- Vehicle obstruction 7%
- Safe turn on red 4%
- Sun glare 11%
- Paper plates 3%

The fine associated with 21453a CVC is: \$424.50

Portion of that fine which goes to the City of Belmont: \$143.18 (37.8%)

Using this data and the violation data from the February 1, 2007 Redflex Video Intersection Analysis, Staff chose two intersection approaches as the most viable. This was based on their having the highest number of mixed type violations, as opposed to a single type (e.g. right turn on red only):

Westbound Old County Rd at Ralston Ave				
Description	Base Case	Optimistic Revenue - 75%	Probable Revenue - 50%	Pessimistic Revenue - 25%
Daily straight through violations	11			
Daily right turn violations	67			
Total daily violations	78			
60% Issuance	47			
60% Collection	28			
Monthly citations	840	630	420	210
Gross monthly revenue @ \$140 per citation	\$117,600	\$88,200	\$58,800	\$29,400
Gross annual revenue	\$1,411,200	\$1,058,400	\$705,600	\$352,800
Yearly fees	72,000	72,000	72,000	72,000
Gross annual revenue, less fees	\$1,339,200	\$986,400	\$633,600	\$280,800

Westbound Ralston Ave at El Camino Real (SR-82)				
Description	Base Case	Optimistic Revenue - 75%	Probable Revenue - 50%	Pessimistic Revenue - 25%
Daily straight through violations	13			
Daily right turn violations	26			
Total daily violations	39			
60% Issuance	23			
60% Collection	14			
Monthly citations	420	315	210	105
Gross monthly revenue @ \$140 per citation	\$58,800	\$44,100	\$29,400	\$14,700
Gross annual revenue	\$705,600	\$529,200	\$352,800	\$176,400
Yearly fees	72,000	72,000	72,000	72,000
Gross annual revenue, less fees	\$633,600	\$457,200	\$280,800	\$104,400

There are indirect personnel costs relating to the review of violations, response to citizen inquiries and appearance in court on contested citations. These costs are difficult to predict, however after discussions with the San Mateo Police Department, Staff estimates approximately twenty (20) hours per week in personnel time will be needed to review citations, responding to citizen inquiries as well as prepare for and testify in court. This estimate may change depending on volume of citations & citizen inquired and method chosen by the City for review by citizens of their violation video (in-house, on-line or combination).

The person(s) administering the program are not required to be sworn peace officers. The cities of San Mateo and Daly City use a retired police officer for system administration. Fremont's

program is entirely run by civilian, non-sworn staff. Two possible scenarios are shown below, using 25% pessimistic revenue figures from the lowest producing approach table.

Description	Scenario 1 – Community Service Officer (with benefits)		Scenario 2 – Retired Police Officer (part time without benefits)	
	One Approach	Both Approaches	One Approach	Both Approaches
Gross annual revenue, less fees	\$104,400	\$385,200	\$104,400	\$385,200
Processing costs	74,973	74,973	38,100	38,100
Net annual revenue	\$29,427	\$310,227	\$66,300	\$347,100

In both scenarios, there are funds remaining after covering the personnel costs relating to system operation. Staff would like to propose that once the program has a proven record of revenue generation, consideration be given to having the revenue collected through the program dedicated specifically to traffic safety.

As an example, 80% could be dedicated to personnel and the remaining 20% to traffic safety projects (traffic calming, enforcement overtime, public education). The base cost for a police officer is approx. \$107,000 (including benefits).

Public Contact

Posting of City Council agenda. This project was presented at the February 14, 2006, June 27, 2006, July 25, 2006, December 12, 2006 and April 10, 2007 City Council Meetings, where it was posted on the City Council agendas. Those meetings were also televised on Ch 27. Since January, 2006, references to Belmont's efforts in this area have been noted in numerous articles on the subject in area newspapers.

Recommendation

It is recommended that the City Council approve establishment of an Automated Red Light Photo Enforcement Program with Redflex Traffic Systems as vendor for the system(s) and direct Staff to enter into contract negotiations with Redflex Traffic Systems. The resulting proposed contract will be brought back to Council at a future date for approval.

Initial installations are recommended to cover westbound Ralston Ave at Old County Rd and westbound Ralston Ave at El Camino. Other installations in the future would be considered, based on the results of these systems. An update on the program would be presented to Council six (6) months after the system(s) become operational.

Alternatives

1. Take No Action.
2. Provide Additional Direction

Attachments

- A. Photographs of Redflex Slimline cameras in City of Walnut, CA

Respectfully submitted,

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Attachment “A”



Cameras Mounted on Existing Signal Poles



Free Standing Camera & Strobe

(*Note: control box would be remotely mounted in Belmont)

Redflex Installation – Walnut, CA (Los Angeles County)