



**CITY OF ENCINITAS
CITY COUNCIL
AGENDA REPORT
Meeting Date: November 12, 2003**

TO: City Council

VIA: Kerry Miller, City Manager

FROM: *PC* Peter Cota-Robles, Director of Engineering Services
RB Rob Blough, Traffic Engineer

SUBJECT: A Public Hearing to Consider the Proposed Use of an Automated (Red Light Camera) Traffic Enforcement System per California Vehicle Code Section 21455.6 (a)

BACKGROUND:

At their 2003 Goal Setting Session, City Council directed Staff to consider implementing an automated red-light camera traffic enforcement system. During the past several months, representatives from the Sheriff's Department, Engineering Department, City Manager's Office, City Attorney, City Council, and Traffic Commission reviewed materials and presentations from two well-known vendors that provide automated red light camera traffic enforcement programs.

ANALYSIS:

The City of Encinitas has seen increases in vehicular traffic on our streets due to development and congestion on the local freeways. Signalized intersection accidents have increased from 110 in 1993 to 179 in 2002. During the last four-year period (1999-2002), Encinitas has had 670 reported signalized intersection collisions. Of these, 205 (31%) were directly attributable to red light running and resulted in 108 injuries and 1 death. Table 1 shows the worst 11 intersection locations where the highest number of red light running accidents have occurred during the last four-year period. A complete ranking of all signalized intersections during the last four-year period is shown in Attachment 1.

Table 1: Worst 11 Red Light Violation Accident Locations

Rank	Intersections		Accidents Related to Red Light Violations					Percent of Red Light Violation Accidents vs Total Accidents				
			1999	2000	2001	2002	TOT	1999	2000	2001	2002	TOT
1	Encinitas Blvd	Westlake/Quail Gardens	4	0	1	8	13	80%	0%	20%	100%	59%
3	El Camino Real	Old Target Ctr	5	3	2	2	12	71%	60%	100%	67%	71%
3	Encinitas Blvd	Vulcan Ave	4	0	6	2	12	44%	0%	46%	20%	29%
4	El Camino Real	Encinitas Blvd	3	2	2	2	9	21%	20%	40%	18%	23%
7	Encinitas Blvd	Via Cantabria	2	2	3	1	8	33%	40%	75%	25%	42%
7	Encinitas Blvd	Calle Magdalena	1	2	1	4	8	50%	50%	33%	57%	50%
7	Leucadia Blvd	I-5 N/B/Piraeus St	1	2	3	2	8	100%	40%	50%	29%	42%
11	El Camino Real	Olivenhain Rd	1	3	0	3	7	25%	27%	0%	25%	21%
11	El Camino Real	Mt Vista Dr	2	3	1	1	7	50%	60%	20%	25%	39%
11	Manchester Ave	Mira Costa College	0	0	4	3	7	0%	0%	67%	75%	58%
11	Leucadia Blvd	Town Center Pl	0	1	5	1	7	0%	100%	71%	33%	64%

According to the U.S. Department of Transportation, Federal Highway Administration (FHWA), the use of cameras for the enforcement of red light running violations at signalized intersections is becoming increasingly widespread in the United States. State and local agencies have found that the use of red light cameras can reduce red light running by motorists and, more importantly, reduce the number of crashes attributable to red light running. The reduction in the number of crashes is especially important, as crashes caused by motorists running red lights are, on the average, more deadly and damaging than other types of crashes at signalized intersections.

According to the Insurance Institute for Highway Safety (IIHS) over 90 cities and counties throughout 14 states have implemented red light photo enforcement programs. Intersection accidents and the severity of the collisions have decreased where these programs have been implemented. For example, Oxnard, California had a 32% decrease in Front-into-Side crashes, the collision type most closely related to red light running. The IIHS also concluded that one-year after the implementation of automated red light enforcement in Fairfax, Virginia, the number of red light violations decreased by 40%.

There are two types of technology available for photo enforcement programs: wet film and digital. The wet film takes the necessary pictures similar to that of a 35mm camera. The film must then be manually removed from the camera housing and then be developed. Digital film, on the other hand, captures the necessary still photos and also records a 12-second digital film of the violation. These images are immediately transmitted to the company for review and sent on to the Sheriff's Department for final review and approval as to whether a violation occurred.

The installation of red light camera equipment at a signalized intersection identified as one with a problem with red light running would be done after the results of an engineering study of the intersection determines that engineering improvements or other measures cannot be implemented or would not be effective in reducing the incidence of red light running. Sites selected for the installation of red light camera systems would also be based on crash and red light running violations data. If other alternatives are not available or cannot be deployed in a timely or cost

effective manner, the use of a red light camera system would be considered. Intersections throughout the City would be monitored to determine which locations have the most significant problem.

IMPACTS:

Fiscal Impacts

The fiscal impacts on the City are dependent upon the type of contract that is negotiated. There have generally been two contract options: fixed fee per citation issued or a monthly fee per intersection approach.

For the fixed fee per citation issued there are no out-of-pocket costs to the City. The City would assume no risk and the vendor would assume all risks as well as the cost for construction, implementation, and operation of the program. For the monthly fee per intersection approach the City would be responsible for paying a monthly fee. Revenues received from the tickets may offset this fee if enough violations occur per month.

Some time ago, the City of San Diego had problems with the fixed fee per citation issued because the vendor providing the photo enforcement service also determined if a violation occurred. This approach was determined to be inconsistent with state law. Law enforcement is the only entity with the authority to issue citations for traffic violations. Therefore, law enforcement staff reviews the data to determine if a violation occurred.

Governor Gray Davis recently signed Assembly Bill 1022, which prohibits payment based on number of citations. It becomes law on January 1, 2004. However, all contracts signed prior to this date still have the flexibility to determine which fee option is used.

Staff Impacts

Both the Sheriff's and Engineering Departments will have added responsibilities with the implementation of a photo enforcement program. The Sheriff's Department would need to assign staff the duty of reviewing the photos and digital video, authorizing the citations, and representing the Sheriff's Department at all court proceedings. It is possible that some or all of the time associated with these additional Sheriff's duties could be offset by reduced patrol time. In addition, the Traffic Engineering Division will be working directly with the vendor during the evaluation, installation, and monitoring phases of this program, which will negatively impact the current workload without additional resources.

RECOMMENDATION:

It is recommended that the City Council direct Engineering Staff, in conjunction with the City Manager and Sheriff's Department, to proceed with negotiations with vendors for the implementation of a digital photo and video technology Red Light Photo Enforcement Program and to report back to the City Council with a proposed contract.

Cc: Captain Anthony Nares, Encinitas Sheriff's Department

Attachment 1 – Citywide Ranking of Red Light Violation Accidents

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Rank	Intersections		Accidents Related to Red Light Violations					Percent of Red Light Violation Accidents vs Total Accidents				
			1999	2000	2001	2002	TOT	1999	2000	2001	2002	TOT
1	Encinitas Blvd	Westlake St/Quail Gardens	4	0	1	8	13	80%	0%	20%	100%	59%
3	El Camino Real	Old Target Ctr	5	3	2	2	12	71%	60%	100%	67%	71%
3	Encinitas Blvd	Vulcan Ave	4	0	6	2	12	44%	0%	46%	20%	29%
4	El Camino Real	Encinitas Blvd	3	2	2	2	9	21%	20%	40%	18%	23%
7	Encinitas Blvd	Via Cantebría	2	2	3	1	8	33%	40%	75%	25%	42%
7	Encinitas Blvd	Calle Magdalena	1	2	1	4	8	50%	50%	33%	57%	50%
7	Leucadia Blvd	I-5 N/B/Piraeus St	1	2	3	2	8	100%	40%	50%	29%	42%
11	El Camino Real	Olivenhain Rd	1	3	0	3	7	25%	27%	0%	25%	21%
11	El Camino Real	Mt Vista Dr	2	3	1	1	7	50%	60%	20%	25%	39%
11	Manchester Ave	Mira Costa College	0	0	4	3	7	0%	0%	67%	75%	58%
11	Leucadia Blvd	Town Center Pl	0	1	5	1	7	0%	100%	71%	33%	64%
13	El Camino Real	Garden View Rd	0	1	2	3	6	0%	33%	67%	75%	55%
13	Encinitas Blvd	Pacific Shores	3	0	3	0	6	50%	0%	100%	0%	46%
17	Leucadia Blvd	I-5 S/B	0	1	1	3	5	0%	17%	33%	60%	36%
17	Encinitas Blvd	Balour Dr	1	1	1	2	5	17%	25%	33%	50%	29%
17	El Camino Real	Towne Center Dr	1	2	0	2	5	17%	29%	0%	50%	24%
17	S Coast Hwy 101	D St	0	1	1	3	5	0%	13%	14%	60%	17%
27	Leucadia Blvd	Vulcan Ave	1	1	1	1	4	100%	50%	33%	25%	40%
27	Encinitas Blvd	Village Square Dr	0	3	1	0	4	0%	60%	100%	0%	44%
27	El Camino Real	Santa Fe Dr	3	1	0	0	4	50%	50%	0%	0%	50%
27	Encinitas Blvd	I-5 S/B	2	0	0	2	4	29%	0%	0%	67%	31%
27	Santa Fe Dr	Nardo Rd/Mackinnon Av	1	0	2	1	4	50%	0%	40%	100%	50%
27	Santa Fe Dr	I-5 N/B/Regal Rd	0	2	0	2	4	0%	50%	0%	100%	40%
27	Leucadia Blvd	Saxony Rd	0	1	0	3	4	0%	33%	0%	50%	36%
27	Leucadia Blvd	Quail Gardens Dr	0	0	2	2	4	0%	0%	50%	100%	36%
27	Encinitas Blvd	Sav-on Ctr	1	1	2	0	4	50%	25%	100%	0%	44%
27	Leucadia Blvd	Urania Av/Clark Av	0	0	1	3	4	0%	0%	33%	75%	44%
31	Encinitas Blvd	Village Park Way	2	1	0	0	3	67%	50%	0%	0%	60%
31	Encinitas Blvd	Delphinium St	2	0	1	0	3	50%	0%	50%	0%	38%
31	Leucadia Blvd	Garden View Rd	0	1	0	2	3	0%	33%	0%	67%	38%
31	El Camino Real	Circuit City	1	2	0	0	3	100%	67%	0%	0%	75%
36	Encinitas Blvd	S Coast Hwy 101	0	1	1	0	2	0%	33%	33%	0%	17%
36	S Coast Hwy 101	E St	1	0	0	1	2	50%	0%	0%	25%	20%
36	Santa Fe Dr	Bonita Dr/Windsor Rd	0	1	0	1	2	0%	25%	0%	33%	22%
36	Encinitas Blvd	Saxony Rd	1	0	1	0	2	100%	0%	100%	0%	40%
36	Via Cantebría	Garden View Rd	0	1	0	1	2	0%	25%	0%	50%	29%
49	Vulcan Ave	D St	0	0	1	0	1	0%	0%	50%	0%	25%
49	El Camino Real	Manchester Ave	0	0	1	0	1	0%	0%	100%	0%	13%
49	El Camino Real	Via Molena	0	0	0	1	1	0%	0%	0%	17%	5%
49	Encinitas Blvd	I-5 N/B	0	0	1	0	1	0%	0%	100%	0%	13%

6.4

Attachment 1: Citywide Ranking of Red Light Violation Accidents

Rank	Intersections		Accidents Related to Red Light Violations					Percent of Red Light Violation Accidents vs Total Accidents				
			1999	2000	2001	2002	TOT	1999	2000	2001	2002	TOT
49	Leucadia Blvd	N Coast Hwy 101	0	0	0	1	1	0%	0%	0%	20%	5%
49	S Coast Hwy 101	Chesterfield Dr	1	0	0	0	1	100%	0%	0%	0%	9%
49	San Elijo Ave	Chesterfield Dr	0	1	0	0	1	0%	25%	0%	0%	10%
49	Olivenhain Rd	Amargosa Dr	0	1	0	0	1	0%	33%	0%	0%	17%
49	Encinitas Blvd	Willowspring Dr	0	0	0	1	1	0%	0%	0%	100%	33%
49	Birmingham Dr	MacKinnon Ave	0	0	1	0	1	0%	0%	33%	0%	14%
49	Leucadia Blvd	Orpheus Av	0	1	0	0	1	0%	50%	0%	0%	14%
49	Leucadia Blvd	Sidonia	0	1	0	0	1	0%	100%	0%	0%	50%
49	S Coast Hwy 101	Las Olas	0	0	1	0	1	0%	0%	0%	0%	50%
62	Santa Fe Dr	Lake Dr	0	0	0	0	0	0%	0%	0%	0%	0%
62	El Camino Real	Via Montoro	0	0	0	0	0	0%	0%	0%	0%	0%
62	Encinitas Blvd	Manchester Ave/RSF	0	0	0	0	0	0%	0%	0%	0%	0%
62	Manchester Ave	I-5 N/B	0	0	0	0	0	0%	0%	0%	0%	0%
62	N Coast Hwy 101	La Costa Ave	0	0	0	0	0	0%	0%	0%	0%	0%
62	Santa Fe Dr	Scripps Hospital	0	0	0	0	0	0%	0%	0%	0%	0%
62	S Coast Hwy 101	Cardiff State Beach	0	0	0	0	0	0%	0%	0%	0%	0%
62	Birmingham Dr	San Elijo Ave	0	0	0	0	0	0%	0%	0%	0%	0%
62	Birmingham Dr	Carol View Dr	0	0	0	0	0	0%	0%	0%	0%	0%
62	Rancho Santa Fe Dr	Avn La Posta	0	0	0	0	0	0%	0%	0%	0%	0%
62	Via Cantabria	Via Molena	0	0	0	0	0	0%	0%	0%	0%	0%
62	Via Cantabria	Via Montoro	0	0	0	0	0	0%	0%	0%	0%	0%
62	S Coast Hwy 101	Ped Crossing	0	0	0	0	0	0%	0%	0%	0%	0%
TOTALS			44	44	53	64	205	27%	25%	34%	36%	31%