

- City Council
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**Murrieta**  
**Agenda Report**

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**Subject:** Five-Year Review and Analysis of the City Red Light Camera Program

**Date:** January 18, 2011

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**Approved by:** Mark Wright, Chief of Police

 Rick Dudley, City Manager

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**RECOMMENDATION**

Discuss the City's Red Light Camera Program and provide direction to staff regarding continuing the program.

**PRIOR ACTION/VOTE**

On October 18, 2005, the City Council approved a five-year contract with Nestor Traffic Systems, Inc., for the installation and operation of a three intersection Automated Red Light Camera monitoring system (Vote: 4-1, Ostling opposed).

**BACKGROUND**

The City of Murrieta's five-year contract with Nestor Traffic Systems, Inc. expires in stages relative to when each camera went operational. Murrieta Hot Springs and Margarita expired January 12, 2011 and the vendor has granted a 30-day extension on this intersection. Clinton Keith and Nutmeg will expire March 8, 2011, and Murrieta Hot Springs and Whitewood will expire on December 5, 2011.

Prior to the expiration of the contract, Nestor Traffic Systems, Inc. filed for, and was granted bankruptcy. Nestor's assets were then purchased by American Traffic Solutions (ATS) from Scottsdale, Arizona. ATS honored all of the existing contract terms and is now requesting the City enter into a three-year contract for Red Light Camera services with ATS. A copy of their proposed contract is attached.

**Existing Cameras.** ATS recommends removing two of the existing three intersection camera systems. The first is at westbound Murrieta Hot Springs and Margarita, and the second is at Clinton Keith and Nutmeg streets. Both intersections' red light violations have dropped dramatically since the cameras were installed in 2006. An ATS analysis has determined that the compliance with the law at these two intersections do not warrant leaving the camera systems in place. The Police Department concurs with this analysis. At camera installation in March 2006, Clinton Keith/Nutmeg was experiencing 25 red light violations in the westbound direction every day. Currently the intersection is experiencing 21 violations *per month*, or less than one violation a day. At camera installation in January 2006, Murrieta Hot Springs Road and Margarita Road were experiencing 40 red light violations in the westbound direction every day. Currently the intersection is experiencing nineteen violations per month, or less than one violation a day.



ATS proposes to complete hardware and software upgrades to the remaining camera system equipment currently located at the intersection of east and west Murrieta Hot Springs Road and Whitewood Road and leave this intersection camera in place.

**New Cameras.** ATS recommends, if the contract is renewed, placing three of their upgraded camera systems at new locations, which they analyzed in 2009. Approximately ten daytime hours of video recordings were made at 24 intersections throughout the city, with three identified as potential locations for red light cameras. The recommended locations are the I-215 SB freeway off-ramp at Murrieta Hot Springs Road, the I-15 NB freeway off-ramp to eastbound Murrieta Hot Springs Road, and northbound Madison Avenue and Murrieta Hot Springs Road.

With the new hardware and software upgrades, ATS seeks to increase the current per-approach monthly camera lease fee (\$4,850) to \$5,395 per month per approach, for all new camera installations. The upgrades consist of new digital cameras with higher resolution and clarity, and 24-hour live digital video recording of all intersections with camera systems in place. The current system utilizes 2005 digital technology and only records for eight to eleven seconds at the time a violation is predicted to occur. The newer technology and 24-hour recording has potential for law enforcement to utilize the red light camera system to possibly locate missing people, suspects in recent crimes, etc.

**Program Costs.** The current lease for the program is \$58,200 per quarter, which covers hardware maintenance and software and hardware updates as they become available. From the program inception through the third quarter 2010, the City has received net revenues of \$261,750.79. It should be noted that the cost of officers administering the program and attending court is not factored into these figures. There are three Traffic officers participating in the program administration. It is estimated that on average, two traffic officer hours a day are needed to administer the program and two traffic officer hours a day are needed to attend court related to camera violations. This results in a total of twenty officer-hours a week at a rate of \$45.48 an hour to administer this program and comply with court subpoenas for red light camera cases. The weekly costs are \$909.60. The annual officer costs for the red light camera program is approximately \$47,299.20. From January 2006 through December 2010 the officer costs would be approximately \$171,004.80. *With officer costs included, the net revenue of \$90,745.99 since program inception is approximately \$18,149 annually.*

ATS's proposed contract would raise the lease fee for all approaches to \$5,395 per month. The monthly fee would be raised from \$19,400 to \$21,035, an increase of approximately eight percent. With the current issuance rate of citations and the higher lease fees, the City of Murrieta will still be able to cover all lease costs. If this higher lease rate had been in place the last five years the net revenue to the City would have been \$23,516.56 since program inception instead of the current \$90,745.80, approximately \$4,703 annually.

Since the installation of the Red Light Camera systems in 2006, the citations at all three current camera equipped intersections are as follows:

- 6,654 straight-through red light violation citations were issued;
- 443 left-turn red light violations were issued; and
- 1,406 right-turn red light violations were issued for violations recorded exceeding ten miles per hour.

Per the Police Department's request, Nestor/ATS filters out right-turn violations for speeds under ten miles per hour. The logic behind this was anyone coming around the corner greater than ten miles per



hour would not adequately be able to visually clear an intersection, and would constitute a legitimate safety hazard to cross traffic on a green light. Violations under ten miles per hour, although technically still a red light violation, were not creating a legitimate safety hazard to cross traffic, and were able to adequately clear the intersection before proceeding.

**Rear-End Collisions.** These same camera monitored intersections also had statistically significant increases in rear-end traffic collisions. The intersections in 2004 and 2005 had a combined total of eight rear end collisions prior to the camera installations. After the camera installations, these same intersections in 2006 and 2007 had sixteen rear end collisions, and 25 in 2008 and 2009. These types of collisions usually result in only property damage, or relatively minor injuries, when compared to the head-on or broadside collision from a red light runner, which usually results in potentially life threatening catastrophic injuries or fatalities.

The fact that unsafe speed is the most common primary collision factor in these rear end collisions cannot be discounted. Rear end collisions account for 60% of all collision types, and unsafe speed accounts for over 50% of the observed primary collision factors. The speed at which drivers are approaching these camera intersections, not necessarily the presence of the cameras themselves, is the cause of the majority of the collisions. Also, the city population during the period of 2004-2009 increased from 78,788 to 100,835; a likely contributor to the increase in rear end collisions. Perhaps most significant is the effect the cameras have had on these three intersections related to the rate of broadside and head-on collisions from red light violators. Between 2004 and 2009 there was a total of fourteen broadside or head-on collisions involving a red light violation at the three intersections with cameras. This is exceptionally low when compared to other intersections along Murrieta Hot Springs Road that do not have red light cameras.

Comparing three similar non-camera intersections along Murrieta Hot Springs Road, just west of the camera intersections—Murrieta Hot Springs and Alta Murrieta Road, Murrieta Hot Springs and Hancock Avenue, and Murrieta Hot Springs Road and Madison Avenue—revealed fourteen rear end collisions in 2004 and 2005, nineteen in 2006 and 2007, and eight in 2008-2009; a cumulative total of 41 rear end collisions. Again, speed was the significant primary collision factor. These same intersections experienced a total of 42 broadside or head-on collisions between 2004 and 2009 involving red light violations. All these intersections carry a similar traffic load as the other Murrieta Hot springs camera intersections.

In the attached contract proposal, ATS proposes to put one camera system at Murrieta Hot Springs and northbound Madison Ave due to the potential for a high violation count. Yet police department traffic accident records demonstrate that this particular intersection has had only one accident (non-injury) in the past five years. Empirical data would not support a public safety hazard existing at that particular intersection. This demonstrates that the City goals and ATS goals are different in nature. The police department would only support those proposed camera placements that are located at intersections with high frequencies of collisions. Violation count alone would be insufficient.

City Council now has the opportunity to weigh both the cost and benefit of the Red Light Camera program, and to give staff direction on whether to bring forward any new contract proposal for continuation of the Red Light Camera program or to conclude the program with the expiration of the original five year trial period contract.





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**FISCAL IMPACT**

The fiscal impact is uncertain since it depends on violation counts filmed and actual citations issued. Current Red Light camera locations under the new proposed contract terms would potentially result in revenue of \$4,307 annually after accounting for program administration. However, the City's program goal has always been increasing public safety at intersections and has never been about revenue generation. It appears that the Red Light system would likely maintain revenue neutrality covering costs only, or generate slight revenue (\$4,307) for the City on an annual basis based on the rate of current citation fees.

**ATTACHMENTS**

1. ATS proposed three year Red Light Camera Enforcement contract - for Discussion