



Fremont City Council

3300 Capitol Avenue
Fremont, CA 94538

SCHEDULED

Meeting: 06/16/20 07:00 PM
Div/Dept: Police Department
Category: Agreements and Contracts

STAFF REPORT (ID # 4077)

Sponsors:
DOC ID: 4077

AUTOMATED RED-LIGHT ENFORCEMENT PROGRAM RENEWAL - Public Hearing (Public Notice) To Add Two New Intersections for Automated Red-Light Enforcement Cameras and Authorize City Manager to Execute a Sole Source Contract with Redflex Traffic Systems, Inc.

Contact Persons:

Name:	Ariel Quimson	Kimberly Petersen
Title:	Lieutenant	Police Chief
Div/Dept:	Police Department	Police Department
Phone:	(510) 790-6779	510-790-6869
E-Mail:	nquimson@fremont.gov	kpetersen@fremont.gov

Executive Summary: In September 1999, the City of Fremont entered into a contract with Redflex Traffic Systems, Inc. (RTS) to provide equipment and support services for an automated red-light photo enforcement program. The goal of the Program was to address a noted 31% increase in red-light-related traffic collisions between 1995-1998, while at the same time take advantage of developing technology to enforce red-light violations. Currently, there are a total of ten intersections throughout the city that are equipped to automatically detect red-light violations.

The City's contract with RTS is scheduled to expire on June 30, 2020. Staff is recommending a new contract with RTS with a five-year term and two one-year extensions. In addition, RTS will upgrade all still and video cameras as well as replace system-related computer equipment with upgraded technology. Staff is also recommending adding automated red-light photo enforcement cameras at two additional intersections:

1. Christy Street at Automall Parkway
2. Pacific Commons Boulevard at Automall Parkway

BACKGROUND:

Program Creation: Between 1995-1998 the city experienced a 31% increase in red-light related collisions. In 1998, red light violations caused nearly 10 percent of all traffic collisions and nearly 13 percent of injury or fatal traffic collisions investigated by Fremont Police Department. In 1998, red-light violations resulted in 178 collisions in the City of Fremont compared to 135 in 1988, an increase of 32 percent. Between 1994 and 1998, red-light violations resulted in 771 traffic collisions where 68 percent resulted in injuries and/or fatalities. Collisions which have resulted from red-light violations have cost our community an estimated \$1.5 million each year in wages, productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employer costs (National Safety Council, Estimating the cost of unintentional injuries 1997). Red-light violations are of significant concern to the community members of Fremont, based on traffic complaints received by the City Council, City Manager and Police Department. To address this public safety concern, the City implemented an Automated Red-light Photo Enforcement Program (Program) in August of 2000.

Over the past twenty years, the goal of the Program has always been to improve the quality of life for our community members and visitors by reducing the number of red-light-related collisions that have caused property loss, injuries, and the loss of life. Since the Program's inception, more than 342,410 red-light incidents have been captured. Additionally, collisions involving red-light violations have been significantly reduced within the city of Fremont. This fact is significant since these violations originate from controlled signals that represent 1% of the approximately 230 controlled signals within Fremont. Currently, the Program is managed by the traffic enforcement project specialist and a part-time employee with oversight by the traffic lieutenant. Revenue from the Program supports 100% of salary and benefits of the traffic enforcement project specialist and part-time employee.

Under the current contract with RTS, ten automated red-light photo enforcement systems are currently installed at the below locations throughout the City. Staff selected the locations based on collision rates, high traffic volume, and citizen and/or police complaints.

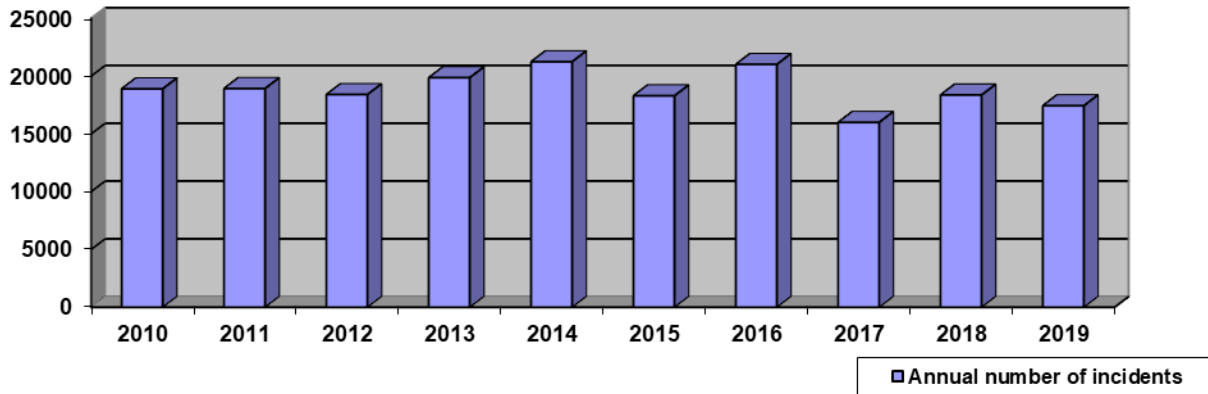
Current Automated Red-light Photo Enforcement Camera Intersections

1. Farwell Avenue at Mowry Avenue
2. Fremont Boulevard at Mowry Avenue
3. Fremont Boulevard at Decoto Road
4. Fremont Boulevard at Automall Parkway
5. Mowry Avenue at Blacow Road
6. Mission Boulevard at Mohave Drive
7. Mission Boulevard at Warm Springs Boulevard
8. Paseo Padre Parkway at Decoto Road
9. Grimmer Boulevard at Automall Parkway
10. Stevenson Boulevard at Blacow Road

Program Performance: In 2019, the automated red-light photo enforcement camera systems captured 17,466 red-light incidents, resulting in 7,094 citations being issued. The discrepancy between incidents captured and citations issued is due to variety of factors included in the City of Fremont business rules for what constitutes a red-light violation and what are referred to as "police rejects." These factors are emergency vehicles responding to calls for service with emergency equipment activated, escorted funeral processions, corporate violations (rental cars with unidentifiable drivers), obstructed vehicle license plates and weather conditions such as sun glare. Staff reviews all incidents captured to confirm a citable violation occurred prior to issuing a citation.

When first implemented, it was staff's opinion that the number of citations issued and traffic collisions would drop after the first two years due to heightened public awareness. Factoring in an increase in population, vehicular traffic and commute patterns, staff's assessment was correct.

The following chart shows automated red-light incidents over the last ten years of the Program.



Each of the ten RTS-equipped intersections detect on average over 1,500 incidents per year. Camera systems can capture up to four lanes of contiguous traffic. All ten of the current intersections detect "straight through" activations. In addition, three intersections capture right turn incidents and two intersections capture left turn incidents. The Mission Boulevard at Mohave Rd. intersection is the only approach that captures straight through, right turn and left turn incidents in a southbound direction.

Since the Program's inception in 2000, the City has recorded a 38% decrease in traffic-signal related collisions city-wide. The chart below compares collisions city-wide five years prior to implementing an automated red-light program and the most recent five-year period.

Collision Statistic Comparison

	Total Collisions	Injury Collisions	Fatal Collisions	Traffic-Signal-Related
07/01/95 – 06/30/00	9155	4601	31	734
07/01/2014- 06/30/2019	6754	3450	36	451

The following table shows that collisions at the ten intersections equipped with automated red-light photo enforcement camera equipment have decreased by 62% in 2019 as compared to the year prior to automated red-light photo enforcement equipment being installed.

Intersection with Automated Enforcement System	Installation	One Year Prior to Installation	2019 Calendar Year
Auto Mall Pkwy/Fremont Boulevard	9/21/2001	22	5
Auto Mall Pkwy/Grimmer Boulevard	9/21/2001	25	6
Blacow Rd/Mowry Av	9/21/2001	20	8
Fremont Boulevard/Decoto Rd	9/21/2001	17	6
Decoto Rd/Paseo Padre Pkwy	7/3/2003	14	5
Mowry Av/Farwell Dr	1/28/2004	16	7
Stevenson Boulevard/Blacow Rd	8/25/2005	17	4
Fremont Boulevard/Mowry Av	6/25/2006	26	8
Mission Boulevard/Mohave Av	11/30/2007	8	6
Mission Boulevard/Warm Springs Boulevard	4/1/2009	18	14
Totals		183	69

The current fine for a red-light violation in Alameda County is \$490. Over the last five years, the fine has increased 19%. The fine is set by State Judicial Council, and the City does not control the state-mandated fees. The fee breakdown for a red-light violation is as follows:

- Base Fine - \$100
- Penalty Assessment - \$290 (\$147.00 to the City of Fremont)
- Immediate and Critical Needs Account (ICNA) - \$35
- Emergency Medical Air Transportation (EMAT) - \$4
- Night Court - \$1
- State Surcharge - \$20
- Court Security Fee - \$40

As shown above, the City receives \$147.00 for a red-light violation. State legislation does not give cities the authority to issue civil remedies (municipal code violations) for red-light violations, or any other moving violation, in-lieu of a vehicle code violation; therefore, staff cannot re-design the Program to reduce fines.

DISCUSSION/ANALYSIS:

RedFlex Traffic Systems Contract

RTS currently owns and maintains the existing automated red-light photo enforcement camera systems at all locations within the city of Fremont. The value of the equipment and infrastructure is estimated to be over \$1,000,000. RTS also has exclusive knowledge, possession, and ownership of equipment, licenses, applications, and citation processes related to the automated red-light photo enforcement cameras and program in Fremont. Maintaining consistency with RTS as the City's vendor is vital for the on-going success of the

Program and the City's ability to continue with an automated red-light photo enforcement program without significant delay and interruption.

At the time the City implemented the first agreement, RTS was one of the only vendors in California providing automated enforcement systems for capturing red-light violations. Over the last several years many new vendors have entered the automated enforcement business; however, staff estimates it would take at least one year to seek a new vendor, get new equipment and technology in place, and set up a compatible citation-receiving system within the Alameda County Superior Court. In addition, the time and costs associated with our own City Engineering Department to review and approve construction plans and permits is estimated to be \$50,000. The Alameda County Superior Court is familiar with the technology and citation-issuing program that RTS uses and has devoted substantial resources to integrate the two systems. The court currently supports seven agencies in Alameda County with automated collection programs that are directly linked to RTS. A change in vendor would significantly disrupt and/or delay court proceedings. Upon reviewing the services, technology, time and cost that would be associated with obtaining a new vendor, it is clearly more beneficial for the City to execute a new sole-source contract with our current vendor.

With the proposed agreement, RTS will provide a full system upgrade and replacement of all video and video-related equipment at the time of renewal, estimated at a value of \$500,000. In addition, the City will have an option to install up to five additional intersection approaches (to be selected by staff) during the term of the agreement. The compensation structure of the new agreement will be similar to the current contract but will have substantial savings in monthly fees. Under the proposed new agreement, the City of Fremont would pay a fixed fee of \$3,995 per month for each of the existing ten approaches. The monthly fee for any additional approaches would be \$5,000 per approach. The proposed contract would be for a five-year term with two one-year extensions and include a termination-for-convenience clause which may be exercised any time during the term of the contract.

New Intersections

The Automated Red-light Photo Enforcement Program is governed by California Vehicle Code § 21455.5, 21455.6, and 21455.7. In addition, California Vehicle Code § 40158 and 40520 as well as California Code of Civil Procedure § 1013 and 1013a give jurisdiction to government entities for the automated enforcement of red-light violations. In 2013 significant changes were made to vehicle code section 21455.5 regulating automated red-light enforcement systems. One of the most significant statutory requirements is that governmental agencies establish guidelines for the selection of a location to ensure that the automated red-light enforcement system is needed at that specific location for reasons related to safety.

In response to the amended vehicle code section, the Police Department adopted a policy which lists the specific criteria that needs to be met before installing an automated red-light photo enforcement camera system at an intersection. In evaluating an intersection/approach for installation of an automated red-light photo enforcement camera system, the following criteria is to be followed:

- The number of red-light violations and traffic collisions caused by running red lights is significant.
- Citizen complaints of red light running.
- The yellow light timing phase is consistent with or greater than the minimum requirements of the California Vehicle Code Section 21455.7, in accordance with the Traffic Manual by the California Department of Transportation.
- Police recommendation.

Once the City Council has designated a new intersection to be part of the Photo Enforcement Red-Light Camera Program, the following procedures will be followed:

- Intersections equipped with the red-light photo enforcement camera systems will be properly posted as defined by 21455.5(a)(1) in the California Vehicle Code, with signs posted within 200 feet of an intersection where a system is operating.
- A 30 day "warning period" shall commence with the activation of all new systems; during which the violator will receive a warning letter, rather than a citation.
- Each new intersection chosen for inclusion shall cause a press release to be issued by the Traffic Lieutenant, which shall include the below listed information:
 - Name of the intersection.
 - Date the intersection will begin photo enforcement operation.
 - First day (date) and last day (date) of warning period.
 - Date (day) the enforcement period becomes effective with citations to be issued.

The current contract with RTS states that the City's authorized representative may select up to ten (10) new intersection approaches for RTS to survey using criteria including, but not limited to, traffic volume, collision data, and red-light violation statistics. In February of 2020, the police department requested RTS survey four intersections based on collision rates, high traffic volume, and community member and/or police complaints. These intersections included Christy St. at Automall Parkway, Paseo Padre Parkway at Stevenson Boulevard, Fremont Boulevard at Stevenson Boulevard and Pacific Commons Boulevard at Automall Parkway. The survey was conducted on February 26th, 2020 from 6:00 A.M. to 6:00 P.M. The hours covered both morning and evening commute traffic. The survey results showed Automall Parkway at Christy Street, and Pacific Commons Boulevard at Automall Parkway had 314 potential red-light violations (raw detection flashes). The survey showed Stevenson Boulevard at Paseo Padre Parkway and Fremont Boulevard at Stevenson Boulevard had a total of five 5 potential red-light violations (raw detection flashes).

12-hour survey								
City	Date	Cross Street 1	Cross Street 2	Approach	LT	Through	RT	Total
Fremont, CA	02/26/20	Christy St	Automall Pkwy	EB	0	9	6	15
	02/26/20	Christy St	Automall Pkwy	WB	6	28	182	216
	02/26/20	Paseo Padre Pkwy	Stevenson Blvd	NB	0	0	0	0
	02/26/20	Paseo Padre Pkwy	Stevenson Blvd	SB	0	2	0	2
	02/26/20	Paseo Padre Pkwy	Stevenson Blvd	EB	0	0	0	0
	02/26/20	Paseo Padre Pkwy	Stevenson Blvd	WB	0	0	0	0
	02/26/20	Fremont Blvd	Stevenson Blvd	WB	2	1	0	3
	02/26/20	Fremont Blvd	Stevenson Blvd	EB	0	0	0	0
	02/27/20	Pacific Commons	Automall Pkwy	NB	0	0	83	83

Since 2012, the south-west side of the City of Fremont has seen a tremendous growth in industry and commerce. Several large corporations have main offices and production in this area. In this same area, Pacific Commons contains an 840-acre retail/restaurant district and is home to a large automall. All of the above has significantly increased the volume of vehicular traffic in the area.

The intersection of Christy St. and Automall Parkway is the main point of entry to Pacific Commons and the auto mall. Pacific Commons Boulevard at Automall Parkway is one of the main intersections used to access the businesses. Automall Parkway is an east-west roadway, approximately **3.0** miles in length. The alignment is predominately straight and flat. According to the City of Fremont's Traffic Engineering Department, the intersection of Auto Mall Parkway and Christy Street handles approximately **55,000** vehicles a day. The majority of the traffic volume, **30,000** vehicles, are traveling on Automall Parkway

During a five-year period, January 2015 to December 2019, thirty-one traffic collisions occurred at the intersection of Christy Street and Automall Parkway, and eight traffic collisions at Pacific Commons Boulevard and Automall Parkway. A ranking of the forty intersections in the City of Fremont with the highest number of traffic collisions found Christy Street and Automall Parkway to be ranked #1. In addition to the high number of collisions and complaints at these two intersections, officers issued a total of 420 red-light citations during the same five-year period at these locations.

The intersection design of both Christy Street and Automall Parkway, and Pacific Commons Boulevard and Automall Parkway lends itself to installation of an automated red-light photo enforcement camera system. The overall width of the roadway permits for the mounting of the automated red-light camera equipment.

At the Police Department's request, the intersections of Christy Street and Automall Parkway and Pacific Common Boulevard and Automall Parkway were evaluated by traffic engineering. Traffic engineering verified that the yellow light timing was in compliance with state law.

In summary, the following items were considered in selecting and recommending automated red-light photo enforcement camera systems be added to Christy Street and Automall Parkway and Pacific Commons Boulevard and Automall Parkway: (1) high number of reported collisions at the intersections over the last five years; (2) input from officers and community members indicating the location had a significant number of red-light violations; (3) locations are suitable for automated red-light camera installation; (4) engineering factors were not an apparent cause in the red-light violations; and (5) safety and quality of life for Fremont’s community members and persons who visit our city.

FISCAL IMPACT:

The Automated Red-light Photo Enforcement Program generates adequate fine revenue for the City to support Program expenses. The fine for a red-light violation is currently \$490 and of this amount the City of Fremont receives \$147 per violation.

Based on the requested survey conducted by RTS of the Christy Street/Automall Parkway and Pacific Commons Boulevard /Automall Parkway intersections, there is a potential for 314 red-light violations per day or 114,610 per year. Looking at historical data rates of raw detections (flashes) that result in actual citations issued by Fremont PD (which takes into account driver behavior based on posted red-light warning notices, visual cameras, corporate violations and City of Fremont business rules for what constitutes a red-light violation) and the average collection rate on citations, this number is reduced to 7,581 collectible citations per year. Based on the \$147 per violation the City receives, this could potentially result in \$1,114,473 in revenue during Year One. Once an automated red-light photo enforcement camera is installed and driver behavior begins to change, there is a reduction in violations from year to year. Based on historical data, the average for Year Two is an 8% reduction, and Year Three is an additional 6% reduction.

Under the proposed new agreement, the City of Fremont would continue to pay a fixed fee of \$3,995 per month for each of the existing ten approaches (currently \$479,400 annually). The monthly fee for the two new approaches would be \$5,000 per approach, per month for an added annual cost of \$120,000.

The potential revenue after expenses for Year One through Year Three for the two new approaches is as follows:

Estimated Revenue for 2 New Approaches	Est. Revenue	Expense	Est. Net Revenue
Year 1	\$ 1,114,473	\$ 120,000	\$ 994,473
Year 2	\$ 1,025,316	\$ 120,000	\$ 905,316
Year 3	\$ 963,797	\$ 120,000	\$ 843,797

ENVIRONMENTAL REVIEW: The construction of automated red-light photo enforcement camera systems at two new intersections is exempt from the requirements of the California Environmental Quality Act (CEQA) per Section 15301(c) of the CEQA Guidelines in that the street and surrounding facilities already exist and the addition of the systems would be a minor alteration to existing street facilities. Therefore, the addition of two automated red-light traffic enforcement camera systems is exempt from further environmental review.

ATTACHMENTS: None.

RECOMMENDATIONS:

1. Find that the construction of automatic red-light traffic enforcement camera systems at two existing street intersections is exempt from further environmental review pursuant to Section 15301(c) of the CEQA Guidelines.
2. Authorize installation of two additional automatic red-light traffic enforcement camera systems at Christy Street/Automall Parkway and Pacific Commons Boulevard /Automall Parkway in order to protect the public from the inherent dangers associated with vehicle collisions as a result of red-light violations.
3. Authorize the City Manager to execute a new sole source contract with Redflex Traffic Systems, Inc. for a five-year term with two one-year options to provide maintenance and service for the automated red-light photo enforcement camera systems for a total not to exceed amount of \$599,400 per year.