



# CITY OF CITRUS HEIGHTS

## CITY COUNCIL STAFF REPORT MEMORANDUM

**DATE:** July 13, 2017

**TO:** Mayor and City Council Members  
Christopher W. Boyd, City Manager

**FROM:** Ron Lawrence, Chief of Police

**VIA:** Dave Gutierrez, Police Lieutenant

**SUBJECT:** **Photo Red Light Enforcement Program (PRLEP) – Approval of Two New Camera Enforced Approaches**

### Summary and Recommendation

In July 2007, the City Council approved a resolution which authorized the City Manager to execute an agreement with Redflex Traffic Systems, Inc. to equip the City with support services, licenses, application and citation equipment related to digital photo and video red light enforcement systems for up to 20 approaches throughout the City.

The Citrus Heights Police Department implemented the Photo Red Light Enforcement Program (PRLEP) in 2008. Currently, there are only half of the amount of approaches authorized by City Council, with eight operational cameras capturing approaches at seven intersections within the City. Citrus Heights statistics indicate since the photo enforcement program began, collisions at most of the monitored intersections have decreased significantly.

In December 2015, the City Council approved a resolution which authorized the City Manager to amend the agreement with Redflex Traffic Systems, Inc. in order to continue to support existing intersections and equip the City with support services, licenses, application and citation equipment related to digital photo and video red light enforcement systems for up to 20 approaches throughout the City.

Staff recommends approving the attached resolution, authorizing the City Manager to approve the two new camera enforced approaches. This would bring the PRLEP to a total of ten approaches at nine intersections. The two new camera enforced approaches will be eastbound Greenback Lane at Parkoaks Drive and northbound Auburn Boulevard at Greenback Lane.

### **Fiscal Impact**

By contract, the Fiscal Impact of the PRLEP will be neutral, and requires no upfront funding for the installation of the two additional cameras. The contract calls for \$4,562.50 for existing approaches and \$6,070 per month for new approaches paid to Redflex. This covers equipment installation, maintenance, and the processing of the photo/motion picture and video. Under the contract, Redflex receives payments only after the City has recovered its costs from gross revenue of the PRLEP.

Language included in the current contract entitles the City to recover the first \$8,500 per month from gross cash received to be applied to operational costs which include the personnel costs to administer the program. Program administration consists of evaluation of photos and video to determine violations, issue citations, attend court proceedings, system audits, and training.

Since the inception of the PRLEP, it has always sustained itself. This includes a yearly \$30,000 expenditure to the General Services Department. The \$30,000 is used solely for new traffic safety installations related to vehicle, bicycle, and pedestrian traffic. The traffic safety installations include roadway striping, signage, and barriers.

### **Background and Analysis**

The PRLEP was established in Citrus Heights back in 2008. There were initially five intersections (6 approaches) selected for enforcement based on collision data. Those intersections were:

- Eastbound Greenback Lane at Fountain Square Drive
- Southbound San Juan Avenue at Greenback Lane
- Northbound Sunrise Boulevard at Oak Avenue
- Southbound Sunrise Boulevard at Oak Avenue
- Westbound Antelope Road at Garden Gate Drive
- Northbound Auburn Boulevard at Antelope Road

A review of the collision data five years prior to installation and five years post installation revealed a reduction in collisions at all five intersections, a reduction in injuries at two of the intersections, and a reduction in fatalities at the only intersection where a fatality occurred within the five years prior to installation.

- Eastbound Greenback Lane at Fountain Square Drive had a **18%** reduction in collisions.
- Southbound San Juan Avenue at Greenback Lane had a **30%** reduction in collisions.
- Northbound and southbound Sunrise Boulevard at Oak Avenue had a combined **65%** reduction in collisions.
- Westbound Antelope Road at Garden Gate Drive had a **43%** reduction in collisions.
- Northbound Auburn Boulevard at Antelope Road had a **37%** reduction in collisions.

(See Attachment [2] for breakdown of collisions and injuries by year)

**Subject: Photo Red Light Enforcement Program (PRLEP)**

**Date: July 13, 2017**

**Page: 3 of 5**

In 2012, two additional intersections (2 approaches) were selected for enforcement based on collision data. Those intersections were:

- Southbound Auburn Boulevard at Greenback Lane
- Eastbound Greenback Lane at Sunrise Boulevard

A review of the four years prior to installation and the four years post installation revealed a reduction in collisions at both intersections and a significant reduction in injuries at one intersection.

- Southbound Auburn Boulevard at Greenback Lane had a **5%** reduction in collisions.
- Eastbound Greenback Lane at Sunrise Boulevard had a **31%** reduction in collisions.

(See Attachment [2] for breakdown of collisions and injuries by year)

Total collisions over the past five years have been on the rise. Below is the data:

- In 2012 we experienced 675 total collisions
- In 2013 we experienced 721 total collisions
- In 2014 we experienced 676 total collisions
- In 2015 we experienced 710 total collisions
- In 2016 we experienced 856 total collisions

Currently, we are on track with 2016, with 214 collisions through April compared to 212 through April of 2016.

Below are the numbers of fatalities for the last five years:

- In 2012 we experienced 3 fatalities
- In 2013 we experienced 1 fatality
- In 2014 we experienced 0 fatalities
- In 2015 we experienced 6 fatalities
- In 2016 we experienced 5 fatalities

Currently, we have experienced four (4) traffic related fatalities year-to-date in calendar year 2017, and are trending to surpass the number of fatalities in 2016. One of these fatalities occurred at Fountain Square and Greenback involving a red light violation.

A review of the past five years of collision data through Crossroads utilizing the High Incidence Intersection Report search field revealed that Auburn and Greenback, and Greenback and Parkoaks were within the top 10 for the entire city.

Auburn and Greenback was the 2<sup>nd</sup> worst intersection with 92 intersection related collisions. The Primary Collision Factor in 13 of those collisions was 21453 VC, red light violation.

**Subject: Photo Red Light Enforcement Program (PRLEP)**

**Date: July 13, 2017**

**Page: 4 of 5**

Greenback and Parkoaks was the 8<sup>th</sup> worst intersection with 47 intersection related collisions. The Primary Collision Factor in eight of those collisions was 21453 VC, red light violation.

Redflex conducted 12 hour video surveys to help determine the feasibility of implementing the program at the two above locations. The survey was conducted by utilizing a video recorder for a period of 12 hours and then the video was reviewed for red light violations. At eastbound Greenback at Parkoaks, the survey revealed there was one left turn violation, 30 straight through violations, and 26 right turn violations, for a total of 57 violations. At northbound Auburn at Greenback, the survey revealed 20 left turn violations, two straight through violations, and 20 right turn violations, for a total of 42 violations.

In addition to the approach direction, red light camera enforced signage would be installed in all four directions. Although not all directions are camera enforced, the signs act as an additional deterrent.

Greenback and San Juan was the worst intersection; however, a 12 hour video survey conducted at this intersection only revealed one straight through violation and zero left turn violations for all three other non-camera enforced directions. Although there were numerous right turn violations, straight through and left turn violations are much more dangerous and have a far greater likelihood of resulting in injury or death.

Also taken into consideration in the selection process was the Intersection Safety Prioritization (ISP) Program. A study between 2003 and 2007, and then an additional study between 2009 and 2013 ranked Greenback and Parkoaks as the worst intersection in the City for traffic violations and collisions. The formula used to determine the basic risk at a given intersection includes the frequency of crashes at the intersection, the severity of the crashes at the intersection, and the Average Annual Daily Traffic (AADT) through the intersection among several other factors.

The police department currently has a focused traffic safety campaign. The traffic safety campaign exists to improve traffic safety throughout the City. There is a significant educational component within the traffic safety campaign; however, we believe that enforcement is necessary to change driver behavior. Changing driver behavior makes our roadways safer for the cited driver, other drivers, bicyclists, and pedestrians.

The PRLEP program has proven to increase traffic safety without negatively impacting the general fund.

### **Advantages**

- As all prior data shows, a reduction in collisions is likely to occur at both of these additional approaches once implementation occurs. The data also shows a reduction in collision related injuries is likely to occur at both additional approaches.

**Subject: Photo Red Light Enforcement Program (PRLEP)**

**Date: July 13, 2017**

**Page: 5 of 5**

### **Disadvantages**

- Negative public perception; however, this can be mitigated with proper messaging of the data utilized to justify the additional approaches.

### **Legal Considerations**

- California Vehicle Code Section 21455.5 (a) authorizes automated traffic enforcement systems when signs are posted within 200 feet of the approach, we establish a 30 day warning period, and we make a public notification at least 30 days prior to enforcement.
- As required by California Vehicle Code section 21455.6 (a), the City Council already conducted a public hearing back in 2008 on the proposed use of automated enforcement prior to entering into a contract for the use of the system. Redflex Traffic Systems, Inc. was the company authorized to equip the City with support services, licenses, application and citation equipment related to digital photo and video red light enforcement for up to 20 approaches.
- The current Redflex Traffic Systems contract is scheduled to expire on December 11, 2018. However, the city may exercise the two, two-year extension options remaining on the contract.

### **Conclusion**

Staff recommends approving the attached resolution, authorizing the City Manager to approve the two new camera enforced approaches. This would bring the PRLEP to a total of ten approaches at nine intersections. The two new camera enforced approaches will be eastbound Greenback Lane at Parkoaks Drive and northbound Auburn Boulevard at Greenback Lane.

Attachments: (1) Resolution  
(2) Breakdown of collisions and injuries by year at PRLEP intersections

**RESOLUTION NO. 2017- \_\_\_\_**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS,  
CALIFORNIA, AUTHORIZING TWO NEW LOCATIONS FOR RED LIGHT CAMERA  
ENFORCEMENT**

**WHEREAS**, the City has a high volume of roadway intersections within its limits; and

**WHEREAS**, traffic safety and operational issues are a community and City Council priority;  
and

**WHEREAS**, staff has identified intersections and approaches within the City limits with potential for safety improvement and would benefit from red light camera enforcement; and

**WHEREAS**, staff has seen a reduction in collisions at intersections where red light camera enforcement is currently in effect; and

**WHEREAS**, the City desires to continue a proactive program to reduce collisions, collision related injuries, and to identify sites with potential for safety improvements; and

**NOW THEREFORE BE IT RESOLVED AND ORDERED** by the City Council of the City of Citrus Heights that the City Manager, or his designee, is hereby authorized to approve two additional new locations for Photo Red Light Camera Enforcement. The two new locations are eastbound Greenback at Parkoaks Drive and northbound Auburn Boulevard at Greenback Lane.

The City Clerk shall certify the passage and adoption of this Resolution and enter it into the book of original resolutions.

**PASSED AND ADOPTED** by the City Council of the City of Citrus Heights, California, this 13th day of July 2017 by the following vote, to wit:

**AYES:**           **Council Members:**  
**NOES:**           **Council Members:**  
**ABSTAIN:**   **Council Members:**  
**ABSENT:**       **Council Members:**

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**Jeff Slowey, Mayor**

**ATTEST:**

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**Amy Van, City Clerk**



# CITRUS HEIGHTS POLICE DEPARTMENT



Ronald A. Lawrence  
Chief of Police

## (ATTACHMENT 2)

### Breakdown of Collisions and Injuries by Year at PRLEP Intersections

Antelope and Garden Gate							
	10/16/03-10/15/04	10/16/04-10/15/05	10/16/05-10/15/06	10/16/06-10/15/07	10/16/07-10/15/08	Pre-RLC Totals	Enforcement Date 10/16/2008
<b>Collisions</b>	10	14	13	12	11	60	
<b># Injured</b>	3	9	4	2	2	20	
<b># Killed</b>	0	0	0	0	0	0	
	10/16/08-10/15/09	10/16/09-10/15/10	10/16/10-10/15/11	10/16/11-10/15/12	10/16/12-10/15/13	Post-RLC Totals	Difference
<b>Collisions</b>	8	6	8	6	6	34	-26
<b># Injured</b>	2	6	7	3	6	24	4
<b># Killed</b>	0	0	0	0	0	0	0

Auburn and Antelope							
	10/30/03-10/29/04	10/30/04-10/29/05	10/30/05-10/29/06	10/30/06-10/29/07	10/30/07-10/29/08	Pre-RLC Totals	Enforcement Date 10/30/2008
<b>Collisions</b>	17	17	14	13	12	73	
<b># Injured</b>	9	8	6	7	3	33	
<b># Killed</b>	0	0	0	0	0	0	
	10/30/08-10/29/09	10/30/09-10/29/10	10/30/10-10/29/11	10/30/11-10/29/12	10/30/12-10/29/13	Post-RLC Totals	Difference
<b>Collisions</b>	11	11	10	9	5	46	-27
<b># Injured</b>	4	7	5	5	1	22	-11
<b># Killed</b>	0	0	0	0	0	0	0

Greenback and Fountain Square							
	6/5/03-6/4/04	6/5/04-6/4/05	6/5/05-6/4/06	6/5/06-6/4/07	6/5/07-6/4/08	Pre-RLC Totals	Enforcement Date 6/5/2008
Collisions	11	12	10	4	7	44	
# Injured	6	4	6	3	1	20	
# Killed	0	0	0	0	0	0	
	6/5/08-6/4/09	6/5/09-6/4/10	6/5/10-6/4/11	6/5/11-6/4/12	6/5/12-6/4/13	Post-RLC Totals	Difference
Collisions	14	6	5	4	7	36	-8
# Injured	8	5	5	1	6	25	5
# Killed	0	0	0	0	0	0	0

San Juan and Greenback							
	6/5/03-6/4/04	6/5/04-6/4/05	6/5/05-6/4/06	6/5/06-6/4/07	6/5/07-6/4/08	Pre-RLC Totals	Enforcement Date 6/5/2008
Collisions	25	24	31	28	17	125	
# Injured	7	11	22	15	6	61	
# Killed	0	0	0	0	0	0	
	6/5/08-6/4/09	6/5/09-6/4/10	6/5/10-6/4/11	6/5/11-6/4/12	6/5/12-6/4/13	Post-RLC Totals	Difference
Collisions	18	15	14	19	22	88	-37
# Injured	5	5	10	18	4	42	-19
# Killed	0	0	0	0	0	0	0

Sunrise and Oak							
	10/11/03-10/10/04	10/11/04-10/10/05	10/11/05-10/10/06	10/11/06-10/10/07	10/11/07-10/10/08	Pre-RLC Totals	Enforcement Date 10/11/2008
Collisions	13	8	11	9	7	48	
# Injured	3	2	4	2	5	16	
# Killed	0	2	0	0	0	2	
	10/11/08-10/10/09	10/11/09-10/10/10	10/11/10-10/10/11	10/11/11-10/10/12	10/11/12-10/10/13	Post-RLC Totals	Difference
Collisions	4	4	6	1	2	17	-31
# Injured	3	0	11	2	2	18	2
# Killed	0	0	0	0	0	0	-2



Auburn and Greenback							
		01/01/09-12/31/09	01/01/10-12/31/10	01/01/11-12/31/11	01/01/12-12/31/12	Pre-RLC Totals	Enforcement Date 01-2013
<b>Collisions</b>		22	13	20	19	74	
<b># Injured</b>		10	5	5	6	26	
<b># Killed</b>		0	0	0	0	0	
	01/01/13-12/31/13	01/01/14-12/31/14	01/01/15-12/31/15	01/01/16-12/31/16		Post-RLC Totals	Difference
<b>Collisions</b>	20	17	16	17		70	-4
<b># Injured</b>	8	8	7	8		31	5
<b># Killed</b>	0	0	0	0		0	0

Sunrise and Greenback							
		01/01/09-12/31/09	01/01/10-12/31/10	01/01/11-12/31/11	01/01/12-12/31/12	Pre-RLC Totals	Enforcement Date 01/2013
<b>Collisions</b>		21	14	25	17	77	
<b># Injured</b>		5	9	13	8	35	
<b># Killed</b>		0	0	0	0	0	
	01/01/13-12/31/13	01/01/14-12/31/14	01/01/15-12/31/15	01/01/16-12/31/16		Post-RLC Totals	Difference
<b>Collisions</b>	18	10	15	10		53	-24
<b># Injured</b>	8	6	6	2		22	-13
<b># Killed</b>	0	0	0	0		0	0