

Proposal
AUTOMATED RED LIGHT PHOTO ENFORCEMENT
RFP # 9045



Chesapeake, Virginia

Submitted on February 12, 2009
5:00 p.m.



Corporate Office

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RFP Contact

Craig Primiani
Eastern Regional Sales
Director
617-913-5472 (M)
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MAKING A **SAFER** WORLD.

February 12, 2009

Victor Westbrook
Purchasing Manager
306 Cedar Road, 5th Floor
Chesapeake, VA. 23322

Dear Mr. Westbrook:

Redflex Traffic Systems, Inc., (Redflex) is pleased to present the enclosed proposal to the City of Chesapeake, Virginia. Redflex is committed to meeting the City's goals of reducing the number of red light violations and to improving public safety with the proposed deployment of an automated red light photo enforcement program as specified in the Request for Proposal (RFP) # 9045 and all issued addendums. Redflex will provide all materials and manpower necessary and assist in the selection of intersection(s) and approach(s) for the program. Our total solution includes all hardware, software, installation, maintenance, operation, and all back-office processing of violations. Redflex accepts the offer to bid and the Conditions Governing the Procurement process, with the additional comments listed on Binder #2, and will comply and act in accordance with all Virginia State Statues and City of Chesapeake ordinances regarding Anti-Discrimination in employment.

We recognize that the City is not just looking for a "technology vendor"; but rather developing a long-term relationship with a "partner" who truly understands photo enforcement's nuances and the impacts it can have on the City both positively or negatively if the program is administered or managed incorrectly. This partner should not only be one who can provide the robust program management and customer service that is required to operate a successful program, but a partner with experience in nurturing a program through from its inception, aiding it through growth and expansion, and supporting it well into maturity.

For nearly a quarter of a century, Redflex has been the foundation and true innovator of the automated photo enforcement industry. No other vendor can match our longevity, dedication, and expertise in providing solutions that are perfectly tailored for helping augment and enhance a City's current traffic enforcement efforts with guaranteed industry-leading results.

It is this type of focus that has allowed Redflex to be honored with supporting over **50% of the total U.S. Photo Enforcement contracts totaling 220 plus partner cities** and approaching 1400 fully operational systems with zero clone or dummy cameras. To this point, in the first 6 months of our current fiscal year, we executed over 48 contracts, which equates to **Redflex being selected in approximately 80% of all competitively bid contract awards.**



City of Chesapeake, VA
Automated Red Light Enforcement Program
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Redflex proposes a truly unique photo enforcement system that no other vendor can match in capability, delivery and support.

Cristina Weekes, Executive Vice President is the authorized individual to contractually obligate Redflex Traffic Systems, Inc. In addition, the following individual is authorized to negotiate the contract on behalf of Redflex as well as the person to be contacted for clarifications on our proposal:

Craig Primiani
Eastern Regional Sales Director
617.913.5472 Mobile
cprimiani@redflex.com

As the Selection Committee evaluates our proposal, we are confident that our verifiable capabilities, experience delivering programs of similar magnitude and complexity, and our proven public safety benefits will demonstrate that Redflex is clearly the most qualified vendor to support the City's efforts and to deliver a full turnkey system; as clearly specified in the RFP.

We thank you for this unique opportunity. We are confident in our people, our technology and our approach and are enthusiastic in our hopes to support this important community safety endeavor.

Kind Regards,

A handwritten signature in cursive script that reads "Cristina Weekes".

Cristina Weekes
Vice President, Redflex Traffic Systems

CITY OF CHESAPEAKE

INVITATION FOR BID

ADDENDUM NO. 4

ISSUE DATE: February 4, 2009

RFP No. 9045

TITLE: AUTOMATED RED LIGHT PHOTO ENFORCEMENT PROGRAM

ISSUED BY: City of Chesapeake
Purchasing Division
306 Cedar Road, 5th Floor
Chesapeake, Virginia 23322

DEPARTMENT: PUBLIC WORKS

Question: Regarding the cost proposal format, the RFP specifies a needed separate sealed envelope for the cost. However, on page 17, the paragraph under Binder #3 states "all discussion of proposed cost, rates or expenses must occur only in a separate location with the cost response form." Could you clarify? Do you consider binder #2 to be the separate sealed envelope or would you like the cost in a separate sealed envelope in binder 2, and/or separate apart from binder #2 all together? In accordance with the proposal organization on page 17 there should be three binders if you are submitting proprietary materials. Binder 2 should contain the cost information.

Is there a specific/actual "cost response form" that is needed? No

Under the technical specifications/requirements section on page 18, number 3, "identify the proposed Project Manager and submit a list of other key personnel committed to the City account, summarize each person's level of specialized experience." Is this a specific needed requirement of compliance to the RFP? This information is required and will be used in evaluating proposals.

Could you clarify the page limits for the proposal, page 17, and section 3.3.1? Are the limits to 50 pages inclusive of all three binders (1,2,3) together or is it 50 page per each separate sectioned binder? 50 for each binder.

Regarding binder#3 for the proprietary or confidential material, will this section remain confidential to the City only or is it also open and subject to the Freedom of Public of Information Act to anyone's requested? All marked proprietary and confidential info is not subject to the Freedom of Public Information Act.

Section 22 b. The contractor shall guarantee the City that the program will be cost neutral or better during the term of the agreement. Code of Virginia 15.2-968.1, Section 1 includes the following condition, "No locality shall enter into an agreement for compensation based on the number of violations or monetary penalties imposed. It appears that "cost neutral" compensation is directly correlated to the number of the violations issued and the collection of the related fines, i.e. the "monetary penalties imposed". If the locality does not receive sufficient revenue from collected fines to pay the Contractor, and then the Contractor must reduce the fee. Thus it appears that "cost neutral" compensation is based on both the number of violations and the monetary penalties imposed. What is the Chesapeake City attorney's opinion regarding code of Virginia 15.2-968.1 and whether or not "cost neutral" compensation complies? Cost Neutral is defined as stated on page 10 section 22 Compensation a and b.

RFP Page 31 section 8, I assume that we don't have to have a bond due to the fact that the program is at no cost? Please confirm? The City is requiring a Performance Bond.

The pricing request for a deduct for not providing Public Information/Education/Survey component, can you please help me understand the reason for that request? The cost for providing this service shall be borne by the contractor and therefore must be shown as a separate line item.

Note: A signed acknowledgment of this addendum must be received at the location indicated on the IFB either prior to the bid date and hour, or attached to your bid. Signature on this addendum does not substitute for your signature on the original bid document. The original bid must be signed.

NAME AND ADDRESS OF FIRM:

Redflex Traffic Systems, Inc.

23751 N. 23rd Avenue Ste. 150

Arizona

Zip Code: 85085

Title: Executive Vice President

Date: 2/9/09

By: 

Name: Cristina Weekes

(Signature in Ink)

(Please Print)



2. Qualifications and Specialized Experience

Redflex Traffic Systems is a wholly-owned subsidiary of the Redflex Holding Group. Redflex has been servicing photo enforcement programs across the world for well over 2 decades. In the US we currently operate the longest-established program, which dates back to 1986.

As the longest **established photo enforcement service provider** in the USA, we stand shoulder-to-shoulder with over 225 partner cities and have helped **pioneer successful photo enforcement programs in 16 of the 22 states** in which we currently operate. As such, we truly and wholeheartedly recognize the potential pitfalls and challenges that the City of Chesapeake may face in their **trailblazing efforts**. We also know that our depth of experience will translate into a unique understanding of how to best navigate these waters and we are single-handedly in the best position to ensure that the City is successful in its efforts, operationally, fiscally, technically and legally. As previously stated, Redflex currently support the very first, inaugural programs in sixteen States across the Country, including:

- Mississippi, City of Columbus
- State of Louisiana, Jefferson Parish
- State of Massachusetts, Town of Saugus
- State of New Jersey, City of Newark
- State of Colorado, City of Fort Collins
- State of Nevada, City of North Las Vegas
- State of California, City of Oxnard*
- State of Illinois, City of Chicago
- State of Arizona, City of Paradise Valley
- State of South Dakota, City of Sioux Falls
- State of Ohio, City of Toledo
- State of Oregon, City of Beaverton*
- State of Minnesota, City of Minneapolis
- State of New Mexico, City of Albuquerque
- State of Virginia, County of Spotsylvania
- State of Montana, City of Bozeman

**Denotes programs which converted technologies and vendors and replaced incumbent vendors; thereby also transitioning back-offices.*

Our philosophy is simple- We provide our partners with partial or full turnkey all digital automated enforcement programs that that are economically feasible, simple to administer and maintain, and provide the most advanced and proven technologies.

Additional Experience - As a publicly traded company, Redflex #1 market share position, leadership and many years of continued and uninterrupted program delivery can be easily confirmed. Over the course of 2007-2008, five very important events took place. These five events have set the standard and direction for the entire photo enforcement industry and provided an objective and empirical standard for system performance and operation. **These events included:**

- **Head-to-head field demonstration of multiple vendors and technologies in Corpus Christi, TX.**
- **Head-to-head field demonstration of multiple vendors and technologies in Austin, TX.**
- **Vendor selection and objective 3rd party validation for the contract award of the largest photo enforcement program in the world: the City of Chicago.**
- **The County of Sacramento, California one of the oldest programs in the state evaluated the offerings of four potential technology partners and ranked Redflex #1.**
- **Arizona Department of Public Safety selected Redflex to implement the first Statewide speed enforcement system in the United States.**



Event #1- City of Corpus Christi, TX

In the spring of 2007, we competed in a 30-day trial in Corpus Christi, Texas. **Redflex beat the competition (ATS & Siemens)** and was unanimously selected to support the City on the permanent contract.

Event #2- City of Austin, TX

The City of Austin advised us that we had been selected following our October 2007, "Face-Off" with ATS. **In the final analysis, the City selected Redflex based on a number of evaluation factors, including image clarity, back office, and support services.**

Event #3 – City of Chicago, IL

In 2003, the **City of Chicago conducted a 30-day trial** in which Redflex competed directly against ACS. When the results were tabulated, **Redflex was unanimously selected** to support the City. Today, we support over 150 systems in the City of Chicago.

In August 2007, the City of Chicago issued a competitive tender for the expansion of the city's current Digital Automated Red Light Enforcement Program (DARLEP). Per the tender's specification, the new project's scope was for the addition of, but not limited to, 220 intersections with 2 approach systems per intersection and for a contract term of 5 years with the option of 2 additional one-year periods.

The evaluation process was extremely comprehensive and included reference checks, the assessment of each participating vendor's records of past performance and the specialized experience of each participating firm's personnel. **As the largest red-light tender in the world, the City also validated its process and findings by engaging an objective 3rd party engineering firm, Parsons Engineering.** The firms that responded included ATS, Meade Electric, Nestor and Redflex, while Meade Electric was eliminated from additional evaluation for not providing required key components of the RFP response. **In the final analysis, Redflex was rated the most highly qualified respondent and was the unanimous recommendation by the evaluation committee.**

American Traffic Solutions was rated a total combined score of 714. The resulting score by the EC are concerns over the lack of implementation and operational experience of the subcontractors, lower than requested citation issuance rate, and less than desirable technical solution as requested in the Request for Proposal.

Nestor Traffic Systems, Inc. was rated a total combined score of 714. The resulting score by the EC are concerns with the financial viability of the company, ability of their team to implement a large scale program, and high cost of implementing the DARLEP.

Redflex Traffic Systems, Inc. was rated a total combined score of 1030 and therefore ranked as the highest qualified respondent. The resulting score is based on the respondent's ability to meet or exceed all of the technical, implementation, operational and financial requirements.

A vote was taken by the EC members and unanimously selected Redflex Traffic Solutions, Inc. as the most qualified respondent. Based on further discussions and the highest cumulative score assigned by each member of the Evaluation Committee (EC), Redflex Traffic Systems, Inc. is recommended as the selected respondent for contract negotiations. The selected respondent has active installed systems in the City. Therefore, the EC voted not to proceed with Phase III – Pilot Test.

There could be no better confirmation of the legitimacy, credibility, technological superiority and undisputed market leadership of Redflex Traffic Systems than being awarded the largest Photo Enforcement program in the world in a highly competitive bid process that included both a national and international pool of Photo Enforcement Service providers.



Event #4 – County of Sacramento, CA

In March 2008, having reached the end of their existing contract with ACS, the **County of Sacramento** sought proposals for the continuation and possible expansion of their red light camera program. As one of the oldest and most respected programs in the State of California, the County contract was aggressively sought after by ACS, ATS, Nestor and Redflex. When the evaluation was completed, **Redflex was scored nearly 25% higher than the next closest respondent and was unanimously selected** to support the County. County of Sacramento Evaluation (June 2008):

| | Redflex | ACS | ATS | Nestor |
|------------------------|--------------|--------------|--------------|--------------|
| Company Qualifications | 94 | 52.4 | 69.5 | 66.6 |
| System Capabilities | 95 | 86.4 | 77.6 | 75.4 |
| Customer Service | 89.6 | 84.3 | 77.8 | 61.0 |
| Price | 100 | 82.8 | 73.7 | 63.0 |
| Total Points | 378.6 | 305.9 | 298.6 | 266.0 |

Event # 5 – Arizona State Department of Public Safety (July 2008)

Redflex was selected as the vendor of choice for the first statewide speed-enforcement program in North America by the Arizona Department of Public Safety. Redflex is currently providing a speed monitoring pilot program for Arizona utilizing two mobile van units deployed across the state to deter speeding. The awarded contract is for 200 systems which include 40 mobile speed systems, 10 mobile red light systems, 90 dedicated fixed speed systems and 30 combination systems operating in as a bi-directional mode. The selection of Redflex to provide freeway speed enforcement cameras for the state resulted from a formal Request for Proposal (RFP) issued by the Department of Public Safety and included a highly competitive analysis of all vendors on the basis of financial stability, program pricing, technology, implementation and customer service. Vendors participating in the RFP included Redflex, Nestor Traffic Systems and American Traffic Solutions (ATS).

Having been selected in all three competitive head-to-head trials that Redflex has participated in, as recently as last year, Redflex has demonstrated its superiority over its competitors in this environment. Redflex recommends that the City visit any one of our operational programs, and more importantly our back office operation to further validate our superiority. A visit to the back office will allow the City to corroborate a vendor's claims and substantiate their ability to support the City's program for the term of the agreement. It will also allow the City to observe all technological core competencies and meet with customers to verify our capabilities and avoid a situation that just happened to Naperville, Illinois. One of our competitors recently had a contract terminated in Naperville. The initial decision was based on price and the vendor could not deliver the technology as described on the contract. After the contract was terminated, the City issued another RFP and Redflex was the overwhelming choice due to our leadership and verifiable technological superiority. That vendor has subsequently pulled out of all of its contracts in Illinois and Missouri. Redflex will work with the City to meet the objectives required to verify our capabilities and avoid the embarrassment experienced by Naperville and the other communities that have similar horror stories to tell.



4. Scope of Work

General Requirements

Redflex will provide all materials and effort necessary to the City for the deployment of an Automated Red Light Photo Enforcement Program. Services provided will include all hardware, software, installation, maintenance, operation, processing of violations and other services as described in the RFP and addendums. Redflex will maintain that the City shall have sole authority for establishing all operational and administrative program protocols.

Specific Requirements

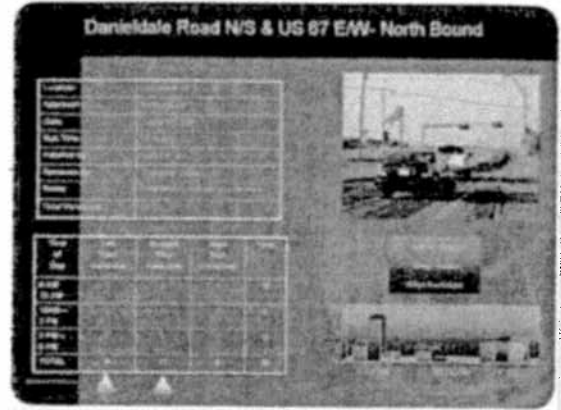
1. Site Analysis

Redflex works closely with various City agencies, including the Police Department, Traffic Engineering, VDOT and Department of Public Works in the identification of the City's most dangerous intersections. Redflex and the City will identify and triangulate which intersections warrant automated enforcement to ensure the City meets its specified safety needs and adherence to VDOT requirements. This analysis will be unique for each intersection, and will include:

- Pole and loop placement
- Unique construction requirements
- Expected coverage areas (such as specific lanes, through traffic and/or left turn traffic, etc.)
- Potential obstructions (such as frequent truck traffic stopped at the light, glare conditions)
- Safety recommendations regarding placement
- Potential number of violations expected per average 24 hour period
- Collision histories
- Collision diagrams: which will provide the City a better understanding regarding the nature and type of collisions
- Engineering studies
- Site walkthroughs
- Geometric analysis
- Pavement analysis
- Engineering study



Upon issuance of the contract, Redflex will issue a report to the City within 10 days of the optimal recommended placements of cameras and provide an opinion on which intersection approaches would most benefit the City. To accomplish this, Redflex will work with the City of Chesapeake to develop and determine the initial list of potential intersections for the initial installation site, chosen in part based on quantitative assessment of the frequency of red light violations and collisions. Redflex will analyze the data and prepare a report summarizing the monitoring results, accident data, a review of the intersection geometric and operational characteristics, review existing signal clearance intervals for compliance with the Institute of Transportation Engineering Guidelines, and any other additional information needed by VDOT and/or Chesapeake Public Works Department for camera placement.



The video analysis will provide baseline violation data for a minimum of 8 hours and during peak traffic times, providing specific details on:

- Volume of Violations:
- By Time of Day
- By Lane
- By Type of Movement

Completing a detailed video-analysis will ensure that Redflex and the City truly develop and implement a comprehensive “**Approach Strategy**”, that will provide the City with detailed information for accurate fact-based decisions on possible program expansion efforts.

Redflex has also developed an additional analysis approach that is truly unique to Redflex. In addition to conducting our video analysis, it is critical to examine how environmental factors at an intersection approach will impact driving behavior. Redflex sought the guidance of a renowned professor from Texas A&M University and the development of a “Violation Calculator” that factors in not only the quantitative violation analysis, but the engineering factors at an approach level that would also influence driver behavior. Additional engineering factors include:

- Traffic Volume
- Approach Speed
- Signal Head Back Plates (Yes/No)
- % of Heavy Vehicles
- 85th Percentile
- Clearance Path
- # of Through Lanes
- Yellow Duration
- Average Green Duration



- Actuated – Distance from Sensor to Approach
- Average Cycle Length

Based on the quantitative analysis and the various engineering factors, Redflex has developed two calculators which more accurately predict violator behavior on real world parameters and influence. These calculators are based on the traffic signal being pre-timed or actuated. Redflex has developed this approach with data points from over 1,225 active systems, that provides the City with the most accurate and robust analysis in the industry. When using the City's own crash data in conjunction with the survey and violation calculator Redflex has seen a "confirmed" 85% confidence in our ability to accurately identify the annual number of violations that will occur at an intersection.

How do we know we can get this accurate? We simply looked back at our own existing accounts and ran our method against 5 years of actual known violation data. What we found is that we are 85% more accurate with our multi input approach to intersection analysis than simply using video survey data alone. The data provided will not only help with the identification of the most problematic locations, but also function as a baseline for future comparison for the measuring of the ongoing program success or effectiveness.

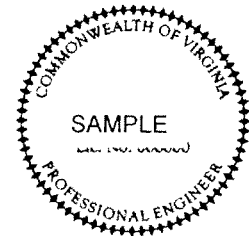
2. Installation/Design Plan

Redflex will perform all the required preparatory, installation and design plan work essential to the City's program for the specified intersections. The plan will outline the placement of all equipment and be submitted in the form and detailed as required by the Chesapeake Traffic Engineering Department.

The installation/design plan will be prepared by an engineering firm licensed to do business in the State of Virginia. Installation of the equipment will not occur until an acceptable installation/design plan is submitted and approved by the City and VDOT (if applicable). The installation/design plan will be constructed to provide for minimal disruption of roadway surfaces and will conform to all city, state and federal guideline.

Redflex will be responsible for submitting any plans as prescribed by the City Code and obtaining all necessary permits and approvals required for installation of the equipment. For the purpose of developing installation time frames, Redflex assumes a 30 calendar-day permit process. If the permit process takes longer than 30 days, Redflex will be provided with additional time for final installation equal to the same number of extra days required to obtain permits.

Redflex will attend all pre-construction meeting as may be required by the City. In addition, any damage to city property caused by Redflex or our subcontractors during installation, operation, maintenance, or removal of system, e.g., signal conduit, signal cables, interconnect, junction boxes, loops and pavement markings, etc., will be repaired in a timely manner.





Redflex will furnish sign posts that will be constructed of telescoping steel. Redflex will be responsible for providing electrical service to the red light cabinet and any additional loop detectors that may be required for the operation of the system. We will change any light bulb lights to LED at our expense. All equipment and materials and work will be approved by Traffic Operations/TMC.



3. Equipment Installation

Redflex will provide all and any necessary equipment and appurtenances to deploy and support a fully functional Automated Red Light Photo Enforcement Program. Equipment will include, but not be limited to, software, hardware, cameras, flash strobes, violation detection loops (if applicable), wiring, computer interfaces, communication linkages, etc.

In addition, we will provide, for the city's use, two computer workstations consisting of one desk top and one laptop. The workstations will be networked to the Program's database and will provide for on-line monitoring of the program by city personnel. The location of the workstations will be as designated by the city.

The equipment will be state-of-the-art and is able to automatically detect a vehicle that is violating the red signal indication. In addition, it will also capture and record the speed of such vehicle and the amount of time elapsed between the times when the signal turned red and the time of the violation.

The Redflex **SmartCam HDX** is a high resolution digital camera unit that enables the effective capture of multiple images of each violator, in a clear, crisp color-rich image format and feature that include:

- Up to 12.84 total pixels (image sensor)
- 5-7 frames per second
- Shutter speed to 1/8000 sec.
- 4008 x 2672 square pixels per image

Data Bar

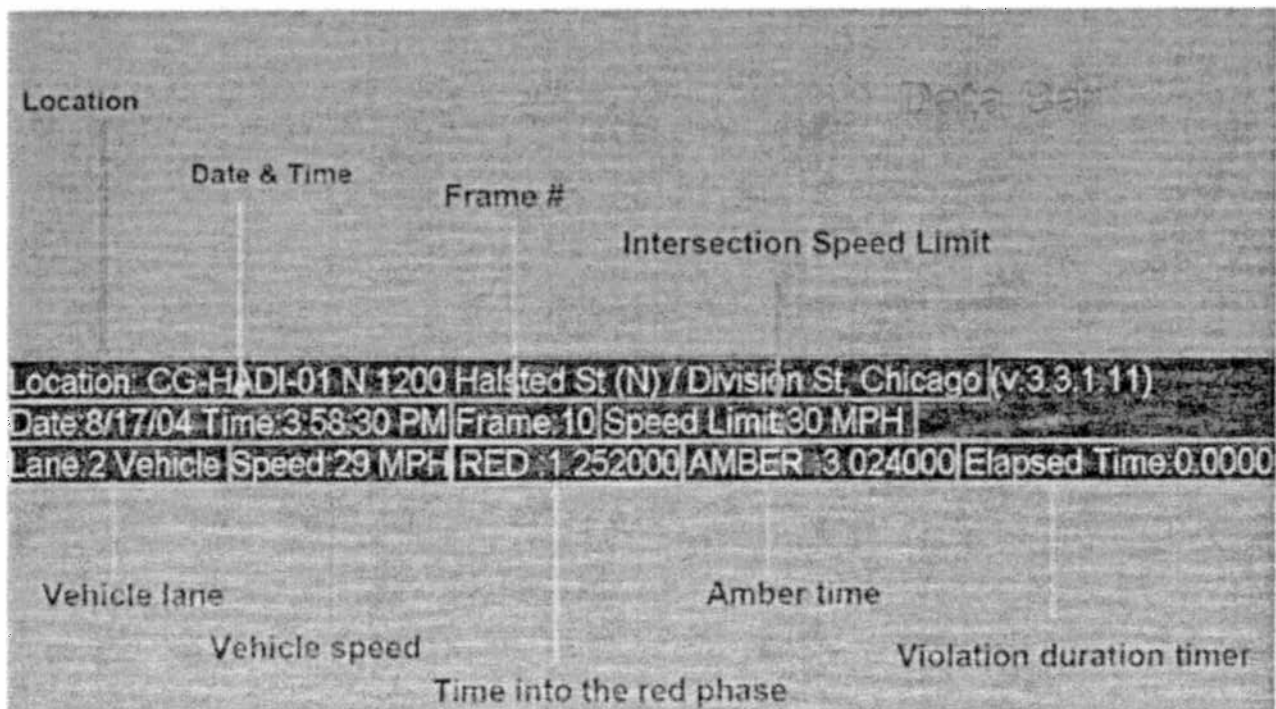
The system imprints violation information on the image at the point-of-capture. Information includes, but is not limited to: location, date, vehicle speed, duration red phase (in 1/100ths time format), duration of the amber phase (in 1/100ths time format) and elapse time between images. **In contrast to the rfp's required specification to state the red phase timing in 1/10th of a second, Redflex strongly recommends that such red light phase timing be imprinted onto the databar in 1/100th of a second format (identical to the requirement for the amber phase timing imprint). Such action will assure that there is no rounding down or rounding up of the red phase timing.** The data bar in image one generated by the violation will display:

- Date
- Time of day (military)
- Lane number the violation occurred
- Amount of time the traffic signal light was red when the violation occurred
- Amount of time the amber traffic signal light was illuminated
- Delay time of 0.5 post red phase programmed into system
- Location name and/or code number
- The data bar for image two will display:
 - Date
 - Time of day (military)
 - Lane number the violation occurred



- Photo number
- Same violation number as image one connecting the two images
- Amount of time the traffic signal light was red when the second image was captured
- Amount of time the amber traffic signal light was illuminated (true reading of the last amber phase prior to the red phase being engaged).
- Amount of time, in fractions of seconds (up to one thousandths of a second), from the time the signal turned red to the time of the violation(which is a vital piece of information because VA law required that the potential offender must be given a 0.5 second grace period after the light turns red)
- Interval time between first and second images
- Speed of violator
- Location number

In addition the databar is encrypted with the violation images at the time of capture. Databar information, point type, and font cannot be manipulated at any time. Each of the high resolution digital images produced by the system includes an encrypted databar, which “stamps” pertinent violation information of the image at the exact point of capture. The databar includes a 256-character field that can be customized to suit the City’s specific preferences and requirements. Standard data elements are encrypted at the point of capture on each image and this information cannot be manipulated by Redflex or the system.



Capturing a Violation

The Redflex system captures the rear of vehicles whose drivers commit red light violations. The camera has the capability to obtain a clear image of the rear of vehicles to clearly identify the license plate. The equipment will capture two (2) color photographs per violation, the first photograph depicts the vehicle before the legal point of violation with the governing traffic signal displayed visibly red in the photograph.



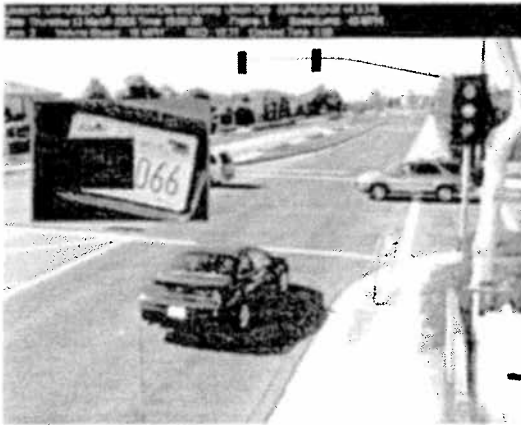
City of Chesapeake, VA
Automated Red Light Enforcement Program
RFP # 9045

The second photograph will depict the same vehicle continuing through the intersection, beyond the legal point of violation with the traffic signal visibly red in the photograph. Furthermore, a license plate image will be provided that is clear and legible. The license plate image used to obtain the violator's name and address will be identified from one of the intersection photos depicting the actual violation.

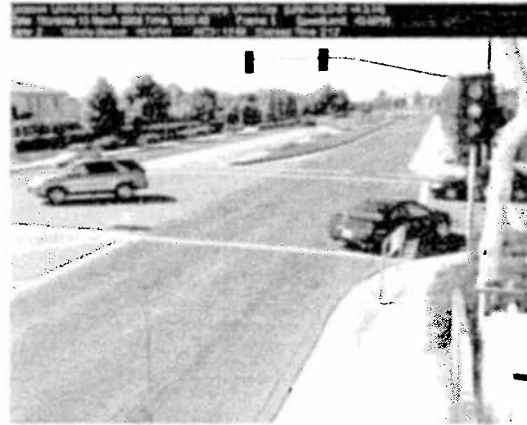
The following sample set of violation images

Daytime – Fair Conditions

Scene "A"



Scene "B"



Daytime – Rain Conditions

Scene A



Scene B



Nighttime Fair Conditions

Scene A

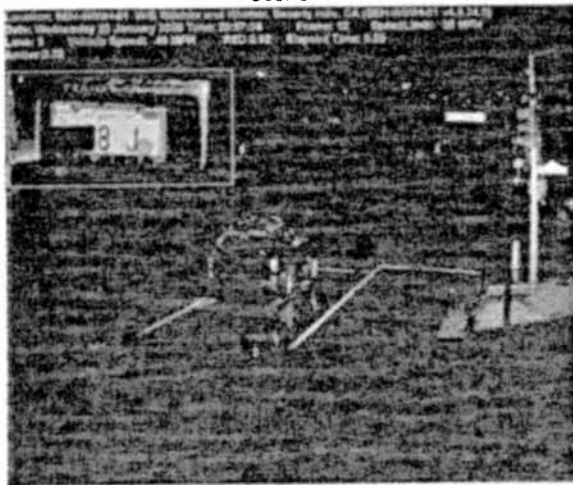


Scene B

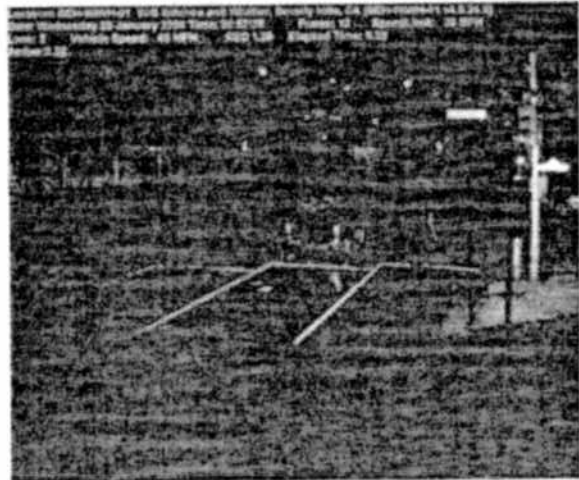


Nighttime Rain Conditions

Scene A



Scene B



Additional key attributes of the Camera System include, but not be limited to, the following:

- The Camera System is modular in construction and will facilitate rapid installation and maintenance.
- The Redflex Solution is designed to maintain a secure chain of evidence. All information and images are encrypted from point of data capture, and all camera photos and accompanying video sequences are stored and transmitted through secure media. In addition, we use multiple firewalls that will further ensure the integrity of the evidence.