



## **Public Synopsis**

OIG Report #2013-0149

Evaluation of the Automated Traffic Violation  
Enforcement System



**OFFICE OF INSPECTOR GENERAL  
BALTIMORE CITY**

100 N. Holliday Street, Rm. 640  
Baltimore, MD 21202



**Public Synopsis**

**Synopsis of OIG Report #2013-0149: Evaluation of the Automated Traffic Violation Enforcement System**

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## **ACRONYMS AND ABBREVIATIONS**

ACS	Affiliated Computer Services
ATVES	Automated Traffic Violation Enforcement System
BPD	Baltimore Police Department
Brekford	Brekford Corporation
Century	Century Engineering
COS	Chief of Staff
COO	Chief Operating Officer
DOT	[Baltimore City] Department of Transportation
Finance	[Baltimore City] Department of Finance
MCPD	Montgomery County Police Department
MOIT	Mayor's Office of Information Technology
Nestor	Nestor Traffic Systems, Inc.
OIG	[Baltimore City] Office of Inspector General
PCU	Portable Camera Unit
RFP	Request for Proposals
Xerox	Xerox State and Local Solutions

<b>FROM</b>	NAME & TITLE	Robert H. Pearre, Jr., Inspector General	CITY of BALTIMORE <b>MEMO</b>	
	AGENCY NAME & ADDRESS	Office of Inspector General 640 City Hall		
	SUBJECT	Synopsis of OIG Final Report #2013-0149		

**TO** Hon. President and Members of the City Council  
400 City Hall

DATE: 12/03/2014

Please find attached the Office of Inspector General's (OIG) Public Synopsis of Case #2013-0149, which involved the evaluation of the Automated Traffic Violation Enforcement System (ATVES). As you are aware, the ATVES program covered fifteen years, three mayoral administrations, numerous staffing changes, multiple contractors, technology changes, and millions of dollars in revenues and expenses.

The OIG's evaluation examined the management and oversight of the ATVES program from its inception in 1999 to suspension of the program in April 2013. ATVES began as a small program with a small group of personnel assigned to oversee the day-to-day operations. The OIG found that as time went on, the program expanded in size and complexity, and personnel levels did not increase sufficiently to properly manage this multifaceted, multimillion dollar program.

During the course of the evaluation, the OIG identified several administrative and management issues pertaining to citation processing and review, camera site selection, performance evaluation, and general oversight. In addition, the OIG uncovered what it believes to be inappropriate activity on the part of the then-Chief of Staff, Alexander Sanchez, to benefit a specific ATVES contractor. The difficulty the OIG experienced in obtaining required documentation, reliable data, and access to key personnel for interviews from vendors and City agencies unfortunately resulted in important questions about the ATVES program that remain unanswered.

Currently, the City's ATVES program remains suspended while the Department of Transportation (DOT) is preparing to bring the program back online. Future plans to restart the program were also considered in the OIG's review.

The OIG has received responses from the major City agencies involved which addressed the issues and concerns highlighted by this report. These responses have been included at the end of this public synopsis.

The OIG would like to thank all of the City agencies and employees who acted as valuable partners in working towards the successful conclusion of this investigation. The OIG looks forward to continuing our partnership to strengthen policy, procedure, and internal oversight protocols.

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Office of Inspector General  
100 N. Holliday Street  
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Baltimore, MD 21202

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PUBLIC SYNOPSIS





## OFFICE OF INSPECTOR GENERAL BALTIMORE CITY

100 N. Holliday Street, Rm. 640  
Baltimore, MD 21202



### Public Synopsis

#### **Synopsis of OIG Report #2013-0149: Evaluation of the Automated Traffic Violation Enforcement System**

**Subject:** Automated Traffic Violation Enforcement System

### **EXECUTIVE SUMMARY**

In early 2013, the Office of Inspector General (OIG) became aware of allegations of impropriety regarding the City's administration of the Automated Traffic Violation Enforcement System (ATVES) program. The OIG was also aware of the surge in media stories regarding excessive erroneous citations issued and general poor performance of the program. As such, the OIG initiated an evaluation of the City's administration of the ATVES program.

The OIG's evaluation examined the management and oversight of the ATVES program from its inception in 1999 to suspension of the program in April 2013. ATVES began as a small program with a small group of personnel assigned to oversee the day-to-day operations. The OIG found that as time went on, the program expanded in size and complexity, and personnel levels did not increase sufficiently to properly manage this multifaceted, multimillion dollar program.

During the course of the evaluation, the OIG identified several administrative and management issues pertaining to citation processing and review, camera site selection, performance evaluation, and general oversight. In addition, the OIG uncovered what it believes to be inappropriate activity on the part of the then-Chief of Staff, Alexander Sanchez, to benefit a specific ATVES contractor. The difficulty the OIG experienced in obtaining required documentation, reliable data, and access to key personnel for interviews from vendors and City agencies unfortunately resulted in important questions about the ATVES program remaining unanswered. These questions, along with the OIG's analysis of the other above issues, are detailed in the body of this report.

Currently, the City's ATVES program remains suspended while the Department of Transportation (DOT) is preparing to bring the program back online. Future plans to restart the program were also considered in the OIG's review. The OIG has made a series of recommendations that, if enacted, would strengthen the future ATVES program as well as promote program integrity and transparency.

## **SCOPE**

The OIG has completed its evaluation of the City's administration of the ATVES program. The scope of this evaluation differs from previous OIG evaluations given the complexity of the subject matter: The ATVES program spans 15 years and 3 mayoral administrations, and has experienced numerous staff changes, multiple contractors, technology changes, and many millions of dollars in revenue and expenses. These factors, coupled with diverging story lines, resulted in a significant amount of reportable information that, if presented chronologically, would not present a clear picture to the reader. The OIG expended a considerable effort to organize this report in a format that presents all of the findings in a clear and informative format.

The timeline of this evaluation was impacted by the availability of data as well as delays in receiving documentation. The OIG also faced difficulties setting up interviews from City agencies and contractors, for example:

- City Agencies:
  - The Baltimore Police Department (BPD) did not respond to the OIG's initial requests for interviews. Only after the Inspector General met with the Police Commissioner did BPD respond in writing. Furthermore, BPD's initial delayed response was incomplete.
  - DOT did not provide the majority of the requested documentation until October 2014 (seven months after the OIG's initial request). Furthermore, the documentation provided was often incomplete and/or unreliable.
  - MOIT responded to all OIG requests in a timely manner. However, data provided by MOIT that was older than 2010 proved to be unreliable.
- Contractors:
  - Brekford Corporation (Brekford) failed to respond or comply with OIG requests for documents and interviews.
  - Xerox State and Local Solutions (Xerox) did not fully comply with the OIG's requests for documents and did not make appropriate staff available for interviews within the requested time frame.

## **BACKGROUND**

### MARYLAND LAW AND CITY CODE

The Transportation Article of Maryland Code, § 21-202.1 authorizes law enforcement agencies in Maryland to utilize automated cameras for the enforcement of red-light laws. Maryland Code § 21-809 authorizes the use of automated speed monitoring systems. In 2014, the Speed

Monitoring Reform Act strengthened the Maryland Code by defining erroneous citations, more narrowly defining school zones, and prohibiting the payment of vendors on a per citation basis.

Baltimore City Code, Article 31, Subtitle 33 authorizes BPD and DOT to jointly develop and implement the use of speed monitoring systems as required by State law.

## ATVES PROGRAM

There are approximately 1,360 signalized intersections and 180 primary schools within the City of Baltimore. To increase the safety of children walking to and from school and to deter motorists traveling throughout the City of Baltimore from violating traffic laws, the City implemented the ATVES program. The ATVES program focused on two primary types of traffic violations: red-light violations and speed violations.

Red-light violations were issued to vehicles that drove through intersections while the traffic light was red or performed a right turn at an intersection while the traffic light was red without bringing the vehicle to a complete stop. When a violation occurred, enforcement hardware captured video footage of the vehicle traveling through the intersection and still frames from the video were then printed onto the issued citations. The fine associated with red-light violations was \$75.<sup>1</sup>

Speed violations were issued to vehicles that were traveling 12mph or more over the posted speed limit within a school zone during the hours of enforcement. When a violation occurred, enforcement hardware captured two still images of the vehicle traveling over a predetermined distance through the enforcement zone. The fine associated with speed violations was \$40.<sup>2</sup>

### Red-Light Camera Site Selection

Despite the OIG's requests, DOT did not provide the OIG with any criteria for determining the location of red-light camera enforcement sites.

### Speed Camera Site Selection

DOT personnel indicated to the OIG that each site selected as an enforcement location was evaluated prior to installation. The OIG was provided with a checklist used for speed camera evaluations.<sup>3</sup> According to the provided checklists, a site was suitable as an enforcement location if it met the following criteria:

1. Whether a Spot Speed Study confirms the prevailing speed is above the posted speed.

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<sup>1</sup> \$75 is the maximum penalty allowed to be assessed under Maryland State law for automated red-light traffic enforcement.

<sup>2</sup> \$40 is the maximum penalty allowed to be assessed under Maryland State law for automated speed enforcement.

<sup>3</sup> The OIG obtained these criteria from a DOT checklist titled "Checklist for Speed Cameras."

2. Whether an Accident Study demonstrates at least 5 accidents within ½ mile of a school in a given year.
3. Whether the roadway speed is 35mph or less.
4. Whether speeds are consistent throughout the corridor.
5. Whether there are any schools within ½ mile.
6. Whether the location is in a school zone.

### PCU Calibration

Prior to and after daily deployment, a test was run for each Portable Camera Unit (PCU). BPD personnel logged into each PCU to confirm that the following information was correct:

1. Location code
2. Description
3. System and Enforcement time
4. Speed information
5. Radar unit was operational and functioning within tolerable limits
6. Test photographs were taken to ensure optimal image quality.

Once this information was validated, BPD personnel logged into the vendor's database and completed a "Start Log." BPD would perform the same test at the end of each daily enforcement period and enter the information into the vendor's database creating an "End Log." Each enforcement site was required to have a completed daily start and end log. If these tests and logs were not completed, any citations generated by that enforcement site for the day would be voided.

### Citation Processing

When a vehicle travels through a red traffic signal, turns right on a red traffic signal without bringing the vehicle to a complete stop, or travels at a speed greater than the posted limit in an enforcement zone, video or still frame images are captured by the enforcement units. These occurrences are known as events. Each event captured by the enforcement units included specific event data such as the camera ID, location, date, and time. Events captured by speed enforcement units also included vehicle speed and whether daily tests have been completed.

Each enforcement site stores event data until it is downloaded at the end of each day. Vendor personnel review each event to determine whether a potential violation has occurred based on the violation specifications provided by the City. When an event has been determined to be a violation, a citation is prepared. Vehicle registration information is gathered from the Motor Vehicle Administration database, or the national database if the vehicle is registered outside of Maryland, based on the license plate number identified in the event images. Once event and registration information is input and verified, the citation is placed in queue for BPD personnel to approve or reject. Citations that are approved by BPD personnel are assigned a unique citation number and are printed and mailed by the vendor.

## ATVES PROGRAM PHASES

The ATVES program evolved over the course of two phases, each of which is discussed below.

### PHASE I (1999-2003)

The first phase of automated traffic enforcement started in February 1999. The Phase I contract term was for four years and was awarded to Affiliated Computer Services (ACS). Initially, six fixed-location cameras were installed at intersections in the City for the purpose of enforcing red-light violations. The red-light cameras used wet film to capture images of vehicles that failed to stop for red-lights as well as vehicles that made right turns at red-lights without bringing their vehicle to a complete stop.<sup>4</sup> By 2003 the program had expanded to include 47 fixed-location, red-light cameras positioned around the City.

### PHASE II (2003-2009+)

In August 2003, the City issued a solicitation to provide installation and service of the second phase red-light traffic violation camera system. The purpose of Phase II was to increase the enforcement area, update the system with newer technology, and add the option to include speed violation enforcement. The Phase II term, contract BP-04021, was for five years with an optional three-year extension and was awarded to ACS in December 2003. In 2005, a subcontractor for ACS, Nestor, installed 18 additional fixed-location, red-light cameras. These new cameras utilized digital cameras instead of wet film cameras. The advantages of digital cameras included an improvement in photo resolution, the use of video recording for violations, and the ability for enforcement officers to download images instead of waiting for film to be developed. In 2006, Nestor began converting the existing wet film camera locations to digital cameras. In 2007, 13 additional fixed-location, digital, red-light cameras were installed. By 2009, the program had expanded to include 82 fixed-location, red-light cameras.

### PHASE II – Addition of Speed Cameras (2009-2012)

On 07/29/2009, the Phase II contract BP-04021 was extended with ACS for an additional three years until 07/25/2012. The scope of the original RFP included speed cameras as an optional item, and ACS submitted bid prices for those optional items as part of its original price proposal. The City amended the contract to include the optional speed cameras on 08/04/2009. By May 2010, 48 fixed-location speed cameras were installed at existing red-light camera locations. By March 2011, 30 PCU placement sites were installed at various locations around the City.<sup>5</sup> On 02/08/2012, ACS was acquired by Xerox. Xerox provided eight PCUs that were to be rotated between the 30 placement sites. By February 2012, an additional 27 fixed-location speed cameras were installed at various locations. By 07/25/2012, the original contract end date, an additional 52 PCU placement sites were installed throughout the City. In total, the program

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<sup>4</sup>It is called wet film because the roll of film has to be removed and developed using traditional developing fluids.

<sup>5</sup>PCU placement sites are concrete slabs located in areas previously identified as enforcement locations.

consisted of 82 red-light camera locations, 75 fixed speed camera locations, and 82 PCU placement sites on which 8 PCUs were rotated. On 07/25/2012, contract BP-04021 was extended until 12/31/2012. The purpose of the extension was to maintain continuity of service while the solicitation process for the new contract was underway.

Number of Citations and Revenues

The OIG requested data from DOT, Finance, and MOIT regarding the number of citations issued and the amount of revenues received across all phases of the ATVES program. The data received by the OIG is presented in the table below. Empty boxes indicate where the OIG did not receive the requested data from the agency. The OIG notes that there are clear discrepancies evident in the figures presented by each agency. OIG attempts to receive reconciling data have been unsuccessful.

	Phase I		Phase II		Phase II + Speed Cameras		Program Total	
	Citations	Revenue	Citations	Revenue	Citations	Revenue	Citations	Revenue
<b>DOT</b>								
Red-Light	-	\$ -	190,342	\$ 14,275,650	601,566	\$ 45,117,450	791,908	\$ 59,393,100
Speed	N/A	N/A	N/A	N/A	1,370,705	\$ 54,828,200	1,370,705	\$ 54,828,200
<b>Total</b>	<b>-</b>	<b>\$ -</b>	<b>190,342</b>	<b>\$ 14,275,650</b>	<b>1,972,271</b>	<b>\$ 99,945,650</b>	<b>2,162,613</b>	<b>\$ 114,221,300</b>
<b>Finance</b>								
Red-Light	-	\$ -	-	\$ -	713,634	\$ 53,522,550	713,634	\$ 53,522,550
Speed	N/A	N/A	N/A	N/A	1,355,474	\$ 54,218,960	1,355,474	\$ 54,218,960
<b>Total</b>	<b>-</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>2,069,108</b>	<b>\$ 107,741,510</b>	<b>2,069,108</b>	<b>\$ 107,741,510</b>
<b>MOIT</b>								
Red-Light	255	\$ 19,125	82,895	\$ 6,217,125	319,750	\$ 23,981,250	402,900	\$ 30,217,500
Speed	N/A	N/A	N/A	N/A	884,409	\$ 35,376,360	884,409	\$ 35,376,360
<b>Total</b>	<b>255</b>	<b>\$ 19,125</b>	<b>82,895</b>	<b>\$ 6,217,125</b>	<b>1,204,159</b>	<b>\$ 59,357,610</b>	<b>1,287,309</b>	<b>\$ 65,593,860</b>

Payments to Vendors

Finance also provided the OIG the amounts of payments made to vendors from July 2009 through December 2013. The City paid vendors \$14,853,232 for red-light citations and \$16,031,722 for speed citations.

**BID FOR NEW CONTRACT**

The City of Baltimore posted Solicitation B50002246, *Request for Proposals to Provide Automatic Traffic Violation Enforcement System (ATVES)*, with a proposal due date of 08/29/2012. Three proposals were initially received by the City, Xerox, Brekford, and Redflex Traffic Systems, Inc., and were considered for technical evaluation. On 10/10/2012, each of the three bid pricing packets were opened for evaluation. The bid evaluation team found that Xerox’s bid included conditional pricing language. This conditional language rendered Xerox’s bid non-responsive. On 10/19/2012, the bid evaluation team determined Brekford Corporation to be the winning bidder. On 11/07/2012, Brekford was awarded the ATVES contract.

## TRANSITION TO NEW VENDOR

Brekford's effective start date for assuming control of the ATVES program was 01/01/2013. After the award of the contract on 11/07/2012, the City and Xerox began negotiating the transition of the ATVES program from Xerox to Brekford. The City claimed that, based on language of the contract with Xerox, all hardware, software, and data pertaining to red-light and speed camera enforcement would belong to the City at the end of Xerox's contract. The Detailed Specification from the contract with Xerox states "*At the expiration of the 5 year contract period or at the end of the 3 year extension, all system components shall automatically become property of the City at no cost.*"<sup>6</sup> Based on the terms of the previous contract, the City planned for Brekford to utilize the equipment transferred from Xerox to the City's possession when the new contract began. However, the actions of Xerox, and those acting on behalf of Xerox, perturbed a smooth contract transition.

During the transition period Xerox made several claims regarding what would and would not be transferred at the end of the contract. Xerox claimed that proprietary software was embedded in the eight portable camera units and thus could not be transferred to the City. Furthermore, Xerox claimed that CiteWeb, Xerox's processing system, was also proprietary and could not be transferred to the City. As a result of this dispute, the City began withholding payment on invoices from Xerox.

During the first few months following the end of their contract, Xerox continued to provide personnel to appear at court hearings for contested tickets issued by Xerox. On 04/05/2013, Xerox discontinued providing personnel to appear in court for the defense of contested tickets issued by Xerox. At the same time, Xerox discontinued the City's access to CiteWeb. On 10/17/2013, the City and Xerox entered into a settlement agreement in lieu of litigation.

## ATVES PROGRAM UNDER NEW VENDOR

On 01/14/2013, the ATVES program began under Brekford. Brekford attempted to utilize the camera equipment installed previously by Xerox. This equipment consisted of the red-light cameras and the fixed speed cameras. The 8 PCUs utilized by Xerox were not transferred to the City at the end of the contract.

During the transition of the program to Brekford, it was discovered that the fixed speed cameras were non-operational.<sup>7</sup> The City hired Teletector, an engineering consultant, to inspect the equipment and determine the reason why it was non-operational. At the request of the City's

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<sup>6</sup>Solicitation BP-04021, Detail Specification, System Overview, page 27.

<sup>7</sup>The OIG was unable to determine exactly when it was discovered that the fixed speed cameras were non-operational.

Law Department, Teletector did not issue a final report on their findings. To date, it remains unclear as to why the fixed speed cameras were non-operational or why the City or Brekford were unable to repair or reactivate the existing equipment.

Brekford had 10 PCUs available for use at the beginning of 2013. In order to maintain continuity of service, the City agreed to pay Brekford \$2.2 million to procure an additional 72 PCUs for a total of 82 PCUs to be deployed at each of the previously-constructed PCU sites.

The OIG has been unable to obtain a definitive number of citations issued to the public during the time period that Brekford operated the ATVES program.

On 04/16/2013 the City suspended the ATVES program. DOT and Brekford began making adjustments to the system and implemented a series of additional internal controls and standard operating procedures. In October 2013, DOT and Brekford began a one month trial period where the system was operational but no citations were to be issued. Based on the results of the one month trial period, the City began the process of terminating the contract. On 12/18/2013, the City and Brekford entered into a settlement agreement in lieu of litigation.

#### CURRENT PROGRAM STATUS

The ATVES program remains suspended while DOT develops a more reliable, accurate, and transparent enforcement program. The City utilized consultants, Century Engineering and Sam Schwartz Engineering, to analyze and review ATVES red-light and speed camera locations. The purpose of this analysis and review was to determine if the City's current speed camera locations met the requirements for enforcement sites as defined by state legislation and State Highway Administration recommendations.

In June 2014, the DOT Traffic Division collected 72 of the 82 PCUs from various locations throughout the City and placed them in a secured storage facility. Per the settlement agreement with Brekford, the remaining 10 PCUs were retained by Brekford Corporation.

DOT is currently in the process of developing the RFP for the new program. Unlike the previous ATVES program which was procured through the Department of Finance via solicitation and bid, the new program will be procured through a solicitation developed by DOT Contract Management.

In October 2014, DOT provided the OIG with a draft of the new RFP for review and comment. The OIG reviewed the RFP for the new ATVES program and made a series of recommendations.



## ATVES TASK FORCE

On 09/28/2012, the Mayor created an ATVES Task Force, charged with conducting an evaluation of the ATVES program including management oversight, program performance, and program accuracy. On 06/13/2013, the Task Force issued its final report which made a series of recommendations for the ATVES program relating to oversight, contractor accuracy incentives, camera placement, and public awareness.

## URS REPORT

In response to the City's concerns about excessive erroneous tickets, Xerox performed an internal audit of the citations produced by each enforcement site in late November 2012. The results of Xerox's audit indicated that the erroneous citations issued by the majority of the enforcement units were within tolerable levels. Xerox noted that 5 units had an error rate of 10% or greater and pulled these units out of service.

On 02/27/2013, DOT tasked URS, a consulting firm, with performing a secondary review of the citations that had been previously audited internally by Xerox. This task, for which the City paid \$278,071.85, was assigned to URS under their pre-existing on-call contract with DOT. The scope of this task was limited in several ways. For example, URS reviewed less than 1,000 citations from a program that issued an average of 2,500 citations daily. In addition, URS personnel assigned to the review had limited knowledge of the citation review process utilized by Xerox. Furthermore, the assessment criteria for the review were modified with each successive meeting between URS, the City, and Xerox. These limitations in scope, and their impact on URS' findings, were noted by URS in their report of findings issued to the City on 04/12/2013.

## **INVESTIGATION**

### DOCUMENT/REPORT EXAMINATION

Throughout the evaluation of the ATVES program, the OIG faced many delays in receiving requested documents from agencies both inside and outside of City government. The OIG was provided with incomplete and/or unreliable documents and, in some instances, no response at all. The OIG was able to obtain and review the following documents and/or reports:

- Solicitation Number: BP-04021 Request for Bids to Provide Red-Light Traffic Violation Camera System For Baltimore City Government. Second Phase
  - BP-04021 Proposal Response from ACS State & Local Solutions
  - BP-04021 Proposal Response from Redflex Traffic Systems, Inc.
  - BP-04021 Proposal Response from Transol USA, Inc.
  - Memo Concerning Unsatisfactory Performance of ACS Dated 11/17/2003

- BOE Award Request Letter Dated 11/20/2003
- BOE Renewal Request Letter Dated 07/21/2009
- BOE Amendment Request Letter Dated 08/04/2009
- Solicitation Number: B50002246 Request for Proposals to Provide Automatic Traffic Violation Enforcement System
  - B50002246 Proposal Response from Xerox State & Local Solutions
  - B50002246 Proposal Response from Redflex Traffic Systems, Inc.
  - B50002246 Proposal Response from Brekford Corporation
- Bid Evaluations for Solicitation Number: B50002246
- Xerox Presentation on Internal Citation Audit Findings
- Notice of Default issued to Xerox State & Local Solutions
- ATVES Task Force Final Report to the Mayor
- URS Report on Findings
- Settlement Agreement Between City of Baltimore and Xerox State & Local Solutions
- Settlement Agreement Between City of Baltimore and Brekford Corporation
- Various Site Evaluation Checklists
- Various Speed Studies
- Various Crash Studies
- Draft Automated Traffic Violation Enforcement System RFP as of 09/30/2014
- Various Email Correspondence

## INTERVIEWS

All pertinent information obtained through these interviews is reflected in the report. However, the names of interviewees and the statements attributed to them have been omitted in accordance with the OIG's standard reporting policy to protect confidentiality.

## ANALYSIS

Based on information obtained through interviews, document requests, and other methods, the OIG has performed a comprehensive analysis of the ATVES program and identified several key areas for comment. These areas are discussed in detail in the analysis section below.

### CITATION PROCESSING

There has been extensive media coverage and public outcry regarding problems and errors with citations issued by the City's ATVES program. The excessive amount of erroneous citations was a major contributing factor that ultimately led to the suspension of the ATVES program in April 2013. The scope of this evaluation is focused on the management and oversight of the ATVES program. The OIG has not evaluated the appropriateness of issued citations on a citation by citation basis. Such an exhaustive undertaking would require an inordinate amount of time, provide limited meaningful results, and thus falls outside the scope of this evaluation. However, the OIG evaluation of the ATVES program has revealed general types of errors that have commonly occurred. These errors, which the OIG has categorized as either known radar effects or other processing errors, are presented below.

#### *Known Radar Effects*

The City became concerned about the high volume of erroneous citations that were issued to motorists. Xerox contended that several citations issued erroneously throughout the ATVES program were a result of what the radar industry refers to as "known radar effects." Known radar effects occur when environmental factors such as vehicle size, vehicle shape, equipment placement, number of vehicles, or the angle at which the radar is transmitted and received cause the radar equipment to present an inaccurate reading.

One example of known radar effects involved large flat-backed trucks being cited for unreasonably high speeds. It was revealed that the large flat backs of these trucks combined with the angle at which certain speed enforcement units were positioned caused the equipment to register the vehicle as traveling at a speed much greater than its actual speed. Because oversized vehicles require a significantly greater stopping distance, which increases as the speed of the vehicle increases, the OIG has concerns about the effectiveness of an enforcement system that is unable to reliably determine if oversized vehicles are driving at speeds considerably above the posted limit within school zones.

Another example involved citations issued to vehicles stopped at intersections. It was revealed that multiple vehicles and cross traffic were interfering with the enforcement equipment and causing erroneous speed readings. Again the OIG has concerns about the effectiveness of an enforcement system that is placed in a location where environmental factors, such as cross-traffic, would continually interfere with accurate enforcement.

Errors directly attributable to technological issues should have been identified and properly addressed during the initial vendor review. Specifically, the OIG believes that any citations that were captured as a result of known radar effects should never have been sent to the City for approval. The OIG takes this stance because the vendor should not only have an understanding of these effects, but also the controls in place to identify and remove any false readings from the citations sent to the City. However, citations with errors due to known radar effects were continually passed on to the City and eventually to the motorist.

*Other Processing Errors*

Several citations included errors outside of known radar effects. These errors included, but were not limited to, the following:

1. Inaccurate time stamps on citations
2. Inaccurate location information (wrong street, wrong direction)
3. Blurred/indistinguishable images on citations
4. Duplicate images on citations
5. Citations below the 12mph threshold

The OIG believes that the errors noted above should require minimal quality control measures to identify and correct. As with errors caused by known radar effects, the OIG believes that citations containing these errors should never have been sent to the City for approval.

## CITATION REVIEW

During the period that Xerox operated the ATVES program, from February 1999 to December 2012, a total of 21 officers performed citation review and approval. On a daily basis, two officers were assigned to three hour shifts for citation review and approval.<sup>8</sup> Documents provided by DOT included a FY 2012 report on the ATVES program. This report included data on the number of citations processed. The report indicated that during FY 2012, approximately 2,500 citations were issued daily. Given the fact that two officers were reviewing and approving citations for three hours a day, each officer would, on average, review 416 citations per hour. This equates to each officer spending approximately nine seconds reviewing and approving each citation.<sup>9</sup> The OIG believes that nine seconds is an inadequate amount of time to properly review and approve a citation.

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<sup>8</sup> Information pertaining to BPD citation review was provided by BPD as written responses to inquiry.

<sup>9</sup> Montgomery County Police Department (MCPD) personnel spend approximately 45 seconds reviewing each citation.

During the period that Brekford operated the program, from January 2013 to April 2013, BPD increased the number of personnel assigned to citation review and approval. In a written response to an OIG inquiry, BPD stated that during this time a total of 30 officers performed citation review and approval. On a daily basis, five officers were assigned to three hour shifts for citation review and approval. BPD stated that officers would review 50-75 citations per hour. This equates to each officer spending 45-72 seconds reviewing and approving each citation. The OIG believes that BPD increased personnel to an adequate level to allow enough time for proper citation review and approval. Regardless of the increase in personnel, erroneous citations were still issued to motorists during Brekford's operation of the program.

## CAMERA SITE SELECTION

### Red-Light Camera Site Evaluations

Despite the OIG's requests, DOT did not provide the OIG with any criteria for determining the location of red-light camera enforcement sites.

### Speed Camera Site Evaluations

DOT personnel indicated to the OIG that each site selected as an enforcement location was evaluated prior to installation. The OIG was provided with a checklist used for speed camera evaluations. According to the provided checklists, a site was suitable as an enforcement location if it met the following criteria:

1. Whether a Spot Speed Study confirms the prevailing speed is above the posted speed.
2. Whether an Accident Study demonstrates at least 5 accidents within ½ mile of a school in a given year.
3. Whether the roadway speed is 35mph or less.
4. Whether speeds are consistent throughout the corridor.
5. Whether there are any schools within ½ mile.
6. Whether the location is in a school zone.

Based on DOT criteria for speed camera site selection the OIG expected to receive 157 speed studies and 157 crash studies.<sup>10</sup> However, the OIG received only 109 speed studies and 67 crash studies from DOT. Seventy-five of the 109 speed studies corresponded to locations that were selected as enforcement sites. Furthermore, only 11 of the 75 speed studies were dated prior to the initial camera implementation. The remaining 64 speed studies were dated after the site had been selected as an enforcement location. In some cases, these speed studies were dated 1-2 years after the site selection. Of the 67 crash

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<sup>10</sup> 52 red-light and speed camera colocations, 23 individual fixed speed camera locations, and 82 portable speed camera locations.

studies received from DOT, only 4 corresponded to locations that were selected as enforcement sites. The OIG notes that the lack of documentation conflicts with a number of DOT personnel's statements that site evaluation documents were completed and maintained. Ultimately, the OIG is unable to determine if DOT complied with their own criteria to appropriately select ATVES enforcement locations.

#### Site Evaluations Performed by Consultant

In February 2014, DOT tasked Century Engineering (Century) to conduct a retrospective evaluation of existing enforcement locations throughout the City. This task, for which the City paid \$160,087.12, was assigned to Century under their pre-existing on-call contract with DOT. The purpose of this evaluation was to determine whether the existing enforcement locations were appropriate for ongoing utilization. Based on the timing of the evaluation, OIG believes that the decision to have Century perform site evaluations is an indication that DOT was uncertain about the appropriateness of the enforcement sites that were previously used.

#### Speed Cameras Near Intersections

Fifty-two of the 75 fixed speed camera units were installed where red-light cameras were already located. Several DOT personnel interviewed by OIG personnel stated that these locations were selected because the required infrastructure to operate the speed cameras could piggyback the infrastructure that already existed to operate the red-light cameras. The documents provided by DOT did not include crash data or timely speed studies for the fixed speed camera locations. As such, the OIG was unable to determine whether these sites were selected based on convenience or enforcement needs. The OIG does acknowledge, however, that it is possible for an enforcement site to be both appropriately-selected and convenient based on pre-existing infrastructure.

## VENDOR PAYMENTS

Under the terms of the contract, the City was paying vendors a percentage of the citation fee for every citation that was issued and paid. This payment structure, known familiarly as a bounty system, creates an opportunity for abuse of the program. The very nature of the bounty system creates the incentive for vendors to increase the number of citations issued to increase revenue. This incentive to increase citation volume has the potential for emphasizing revenue demands at the expense of quality control efforts. The OIG acknowledges that a per-citation-issued payment system also provides the opportunity for the City to identify and withhold payment for specific and individual erroneous citations as they occur. Under this system, if the City identified an erroneous citation it would not be issued, and the vendor would not be paid. This opportunity is not present under the most recent State legislation which prohibits the per-citation payment structure. Under the new legislation, a municipality may seek liquidated damages against a vendor if the citation error rate exceeds 5%.

## TIMESTAMPS ON CITATIONS

All citations issued by automated traffic enforcement systems are required to have two time-stamped images. Several jurisdictions issue citations with timestamps that show only whole seconds or tenths of a second. The City's ATVES program issued citations with timestamps that show the time of the violation to the hundredth of a second. This additional information allowed for motorists who received citations from the City to re-calculate the speed indicated on the citation. The OIG believes that by including this information on the citation, DOT promoted the integrity of the ATVES program and created additional transparency and accountability.

## CITATION AND REVENUE DATA

The OIG requested data from DOT, Finance, and MOIT regarding the number of citations issued and amount of revenues received (See table on page 9). The data varied greatly between each Department. DOT reported the largest number of citations and revenues. The data provided by Finance indicated approximately 100,000 citations and \$6.5 million revenues less than DOT. MOIT reported approximately half the number of citations and revenues. MOIT personnel indicated that the older data pertaining to the ATVES program was unreliable and incomplete due to the amount of available digital storage space.

The OIG acknowledges that during the operation of the program it would be reasonable to expect timing differences in the data provided by the different Departments. The ATVES program was suspended in April 2013 and, to date, the OIG has not received any reconciliation of the differences between the number of citations and amount of revenues received reported by each department. The OIG believes that these lingering discrepancies create cause for concern regarding interdepartmental communication, reconciliation, and management of the ATVES program.

## TRANSITION TO NEW VENDOR

On 11/07/2012, Brekford was awarded the ATVES contract. The effective start date for Brekford to assume control of the ATVES program was 01/01/2013. As such, the City requested that Xerox provide the appropriate data, access to physical hardware, and access to the system and associated databases in order to begin the transition of the ATVES program from Xerox to Brekford.

Based on interviews, e-mail correspondence, and other documents reviewed, Xerox was reluctant to transition the program.

- Xerox claimed that the software required to operate the ATVES program was proprietary and could not be transferred to the City or a new vendor.

- Xerox claimed that proprietary software was embedded on the motherboards contained within the PCUs and, as such, they could not transfer the PCUs to the City or a new vendor.
- Xerox claimed that any transition period would begin at the end of their contract and, as such, Xerox did not have to allow access to data, software, or hardware until after 12/31/2012.
- Xerox attempted to negotiate terms of a contract extension with the City which would extend the contract with Xerox until 06/30/2013.
- Xerox attempted to negotiate terms of a licensing agreement for enforcement software with the City.
- Xerox attempted to negotiate terms with Brekford that would allow Xerox to operate the ATVES program as a subcontractor under the Brekford contract.

The reluctance of Xerox to cooperate with the City ultimately led to the Department of Finance issuing a Notice of Default to Xerox. This Notice of Default stated that Xerox’s “failure to provide all of the previously requested documentation, information and access is in interference with the City’s operations and a material breach under the contract.”

A draft of the Notice of Default was sent to the former Chief of Staff (COS) Alexander Sanchez for approval on 12/12/2012. COS Sanchez requested that the City delay sending the Notice of Default to Xerox.<sup>11</sup> On 12/21/2012, upon the approval of COS Sanchez, the City sent Xerox the Notice of Default.

## URS REPORT

The City’s Law Department provided the OIG with a copy of the confidential report prepared by URS. Attached to the report was a memo indicating that the URS report was prepared at the request of the Law Department in anticipation of litigation. As such, the contents of the report will not be detailed.

The OIG noted that URS faced several limitations, imposed by both the City and Xerox, in performing the secondary review of Xerox’s internal audit results. These limitations included the amount of time allotted to perform the review, the number of citations reviewed, access to the citation database, and the limited knowledge of the citation review process utilized by Xerox. These limitations, and their effect on the findings, were addressed by URS in the report.

In January 2014, the confidential URS report was leaked to the media. The OIG did not investigate the nature and source of the information leak. However, this disclosure of the report

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<sup>11</sup> The circumstances surrounding COS Sanchez’ delay of the Notice of Default has been examined in greater detail in the section below.



led to several news reports and public responses from both the Mayor's Office and the City Council.

On 01/25/2014, the City Council decided to investigate the circumstances surrounding the URS review. The Council's investigation is currently still open.

Based on a review of the URS report, the OIG believes that URS was, in fact, qualified to conduct the secondary review. However, their ability to perform a thorough review was limited by the restrictions imposed by both the City and Xerox.

#### INAPPROPRIATE INTERVENTION BY FORMER CHIEF OF STAFF

During the course of the evaluation, the OIG became aware of inappropriate involvement and intervention by former COS Alexander Sanchez into the City's contract negotiations with Xerox.<sup>12</sup> The extent of COS Sanchez's inappropriate involvement and efforts to intervene include private email and phone correspondence with Xerox representatives during the bid evaluation process without notifying the City's procurement team. COS Sanchez also issued directives in direct contrast to the procurement team's decisions in an apparent effort to steer the contract award to Xerox. In doing so, the OIG has determined that COS Sanchez knowingly used the influence of his office to benefit the best interests of Xerox contrary to the interests of the City and taxpayers.

The OIG outlines and discusses what it believes to be incidents of inappropriate intervention by COS Sanchez in the paragraphs below.

##### *Intervention in Awarding Contract to Winning Bidder*

On 07/25/2012, the City's Board of Estimates approved an extension of the ATVES contract with Xerox through 12/31/2012.<sup>13</sup> The contract was originally set to expire on 07/31/2012 and this extension allowed the City to maintain the continuity of services while the bidding process for a new contract was completed. The City issued Solicitation Number B50002246 - *Request for Proposals to Provide Automatic Traffic Violation Enforcement System* with a due date of 08/29/2012. Three proposals were initially received by the City and proceeded to the technical evaluation. These bids were from Brekford, Redflex Traffic Systems, Inc., and the incumbent ATVES contractor, Xerox.

On 10/10/2012, the procurement team had completed the technical evaluations and received approval from the Board of Estimates to open pricing proposals from the three bidders.<sup>14</sup> During the pricing evaluations, the procurement team noted that Xerox's bid included unclear conditional pricing language. This matter was referred to the Law Department to determine if Xerox's bid would be deemed non-responsive. Xerox's bid

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<sup>12</sup> Phase II of the speed camera program was contracted with Affiliated Computer Services (ACS). On 02/08/2012, Xerox State & Local Solutions acquired ACS. For clarity, the OIG will refer to both Xerox State & Local Solutions and ACS as Xerox.

<sup>13</sup> BOE Agenda 07/25/2012.

<sup>14</sup> The procurement team consisted of personnel from Department of Transportation, Department of Finance, and the Law Department.

was still included in the pricing evaluations in the event that the Law Department deemed it responsive. Ultimately, the Law Department deemed Xerox's bid non-responsive.

On 10/19/2012, evaluations were completed and Brekford was found to be the highest-scored bidder. The following communications occurred that day:

At 2:39pm, Bureau of Purchases Engineer III assigned to the ATVES program (Engineer III) e-mailed former DOT Director Khalil Zaied (Director Zaied) inquiring if they should submit a recommendation letter to the Board of Estimates or if a Best-and-Final-Offer should be requested from Brekford (Former DOT Deputy Director was copied on this e-mail).<sup>15,16</sup>

At 3:31pm, Director Zaied responded to the Engineer III to proceed with the award (Former DOT Deputy Director was copied on this e-mail).

At 3:34pm, the former DOT Deputy Director replied to Director Zaied suggesting that he should notify COS Sanchez.

At 3:50pm, Director Zaied notified COS Sanchez via e-mail that the procurement team was moving to award the ATVES contract to Brekford.

At 4:18pm, City of Baltimore phone records indicate that COS Sanchez had a six minute phone conversation with Sean Malone, a registered lobbyist for Xerox.<sup>17,18,19</sup>

At 4:24pm, COS Sanchez called Director Zaied (The duration of the phone call was two minutes).

At 4:25pm, COS Sanchez sent Director Zaied an e-mail stating "Call me ASAP."

At 4:28pm, Director Zaied called COS Sanchez.

At 4:28pm, Director Zaied replied to the Engineer III's earlier e-mails regarding the request to proceed with the award and stated "I just got a call from the Chief of Staff and

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<sup>15</sup> After the highest-scored bidder has been determined, the procurement team may notify the vendor by requesting a best-and-final-offer for the contract. The procurement team will also prepare a letter to the Board of Estimates recommending the contract be awarded to said vendor.

<sup>16</sup> E-mail correspondence was compiled from various Personal Storage Table (.PST) files. The OIG notes that there may be slight variances in the time stamps shown on correspondence.

<sup>17</sup> COS Sanchez received an incoming phone call from 443-XXX-XXXX. According to investigative databases, this number is a cellular number subscribed to by Mr. Malone. Additionally, this number is recorded as the contact number for Mr. Malone in COS Sanchez's Outlook contact listing.

<sup>18</sup> Mr. Malone is a registered lobbyist for a number of entities that seek to influence legislative and executive action within the City of Baltimore. According to various Maryland lobbyist registration filings, during 2012 and 2013 Mr. Malone was a registered lobbyist for ACS and Xerox. A review of phone records revealed that COS Sanchez had approximately 8-10 calls per month with Mr. Malone. However, based on the timing of the phone call, the OIG is confident that this phone call was primarily related to ATVES.

<sup>19</sup> The OIG believes that prior to COS Sanchez being notified of the winning bidder, no one outside of the procurement team was aware that Brekford was going to be awarded the contract.

he asked me to hold off until we talk next week” (former DOT Deputy Director was copied on this e-mail).<sup>20</sup>

At 4:41pm, Director Zaied asked his assistant to schedule a meeting with COS Sanchez, Engineer III, former DOT Deputy Director, City Purchasing Agent Timothy Krus, and a former Assistant Solicitor for Monday or Tuesday of the following week.

At 4:47pm, the Engineer III forwarded a letter he received from Xerox to Director Zaied and the former DOT Deputy Director. This letter communicated additional costs that the City would incur should it select a new vendor.

At 4:50pm, Director Zaied replied asking “How did they [Xerox] know?”

At 4:51pm, the Engineer III replied to Director Zaied “I have no clue.”

At 4:52pm, the former Assistant Solicitor e-mailed Director Zaied stating “I just got a call from Bob Dashiell, and he agreed that my reasoning for finding their [Xerox] bid conditional was ‘not irrational.’ He will probably still protest, but that was to be expected.”<sup>21</sup>

At 4:53pm, the former DOT Deputy Director replied to Director Zaied suggesting that Xerox would have known that they lost points to other bidders at the public opening of the bids, but that he does not know where they would have received information regarding the rest of the evaluation.

At 4:53pm, Director Zaied replied to the former Assistant Solicitor stating “Heads up: COS Sanchez does not like where we are going with this.”<sup>22</sup>

On 10/22/2012 at 2:30pm, a meeting was scheduled with COS Sanchez, former DOT Deputy Director, Engineer III, the former Assistant Solicitor, and Mr. Krus. The subject of this meeting was a discussion regarding the red-light camera program with DOT and Purchasing.

On 11/01/2012 at 7:40pm, COS Sanchez e-mailed Director Zaied inquiring as to the timing of the ATVES contract award being presented to the Board of Estimates. Director Zaied advised COS Sanchez that it was to be presented on 11/07/2012.

On 11/06/2012 at 1:36pm, Mr. Krus received a summation of all protests against awarding the ATVES contract to Brekford via e-mail and was requested to respond. This e-mail was also sent to other senior staff from the Mayor’s Office, Finance, and the Law Department including COS Sanchez.

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<sup>20</sup>The time stamp on the e-mail places it at the same time of the proceeding phone call. The OIG attributes this to variances in time stamping from different communication systems.

<sup>21</sup>Mr. Dashiell is an attorney affiliated with Harris Jones & Malone, LLC, a firm co-owned by Sean Malone.

<sup>22</sup>Based on other e-mail records, the OIG believes that DOT Director Zaied was referring to the procurement team’s determination that Brekford was the highest scoring bidder.

At 1:46pm, Mr. Krus responded to the request stating, “There was a thorough technical evaluation which concluded that Brekford was sufficiently responsive and responsible in all of these areas for award. We do not revisit and reevaluate the details on protest.”

At 4:28pm, COS Sanchez replied, “[Mr. Krus], Please call my cell ASAP.”

On 11/07/2012, the ATVES contract was awarded to Brekford and was to be effective 01/01/2013.

On 11/07/2012 at 5:13pm, the former DOT Deputy Director e-mailed Director Zaied stating “We got the red light contract done.... Alex [COS Sanchez] was very testy about it.”

At 5:14pm, Director Zaied replied “What [do] you mean?”

At 5:21pm, the former DOT Deputy Director stated “He [COS Sanchez] kept going back to Brekford not being qualified, DOT was taking a big risk, the procurement process is screwed up (because it throws out bids for minor reasons.) I told him, yes, they are a smaller, less experienced firm that will need to scale up. But if they can operate an 18-camera system, then the technology works and that is what matters most. He eventually settled down. Got testy with George [Solicitor Nilson] and Harry [Former Finance Director Black], not so much us[.]”

*Intervention in Submitting Letter of Default to Xerox*

Following the awarding of the ATVES contract, the City, Xerox, and Brekford were in contentious negotiations regarding the transition of the ATVES program from Xerox to Brekford.

On 12/12/2012 at 7:12pm, the former Assistant Solicitor e-mailed senior staff from the Mayor’s Office, the Finance Department, and the Law Department a copy of a Notice of Default letter to be sent to Xerox. The City found Xerox in default for failure to provide documents, information and access. In this e-mail, addressed to COS Sanchez, the former Assistant Solicitor stated that said notice was provided for COS Sanchez’s approval.

On 12/13/2012 at 2:19pm, the former Assistant Solicitor e-mailed COS Sanchez stating, “Have you had a chance to read the letter? We would like to get this out today, if at all possible.”

At 2:49pm, COS Sanchez replied to the former Assistant Solicitor stating, “Please do not send it out today. Khalil [Director Zaied] and Bob [Deputy Mayor Maloney] are in discussions as we speak.”

On 12/17/2012 at 10:45am, the former Assistant Solicitor emailed Director Zaied stating that they will be sending the letter out.

At 10:48am Director Zaied replied to the former Assistant Solicitor instructing her not to send the letter out. Director Zaied further stated that “COS Sanchez is giving them [Xerox] till today to let us know what they’re giving us and Thursday to provide the info.”

At 10:55am, the former Assistant Solicitor e-mailed COS Sanchez stating that her understanding of the situation is that there had been no progress from the previous week. The former Assistant Solicitor further asked if he could confirm that the letter could be sent out that day.

At 5:33pm, Director Zaied e-mailed the former Assistant Solicitor stating that if they did not get what they needed by noon on 12/18/2012 to go ahead and send the letter.

At 9:43pm, Deputy Mayor Maloney e-mailed Director Zaied stating “at the meeting with Alex [COS Sanchez]- we agreed to discuss before we took action.” Deputy Mayor Maloney further asked Director Zaied to “pull them back from directing the letter to be sent - clearly I want to hear more and also to Alex [COS Sanchez] is now in this mix.” Deputy Mayor Maloney then forwarded the e-mail conversation to COS Sanchez.

On 12/19/2012 at 5:19pm, Solicitor Nilson e-mailed COS Sanchez stating that there is no letter or documentation declaring Xerox in default. Solicitor Nilson further stated the importance of such a letter. COS Sanchez replied asking to discuss this before the senior staff meeting.

On 12/21/2012 at 11:01am, Solicitor Nilson e-mailed COS Sanchez stating that the information they received showed that Xerox and Brekford are not getting closer to an agreement and expressed his concern.

At 2:32pm, Solicitor Nilson e-mailed COS Sanchez again stating:

“Respectfully we are being conned by AC&S. They have not moved towards Brekford one inch since 12/18 and Brekford describes the ACS proposal as absurd, non-negotiable (so said by AC&S), insidious, back-door, strong-arming, and not in anyone’s best interest except AC&S. Breckford [sic] does not intend to move forward with any further contractual discussions with AC&S.

Have you heard back from them? Please do not tell them the above specific info because they will likely and correctly conclude we have that info from Breckford [sic] and will then try to use it against us when this evolves into litigation mode.

At this point I see no reason for further delaying the default letter and fear greatly that its continued delay will be used against us by AC&S. I do not propose to send it to anyone other than AC&S.

Please let me hear from you. [Deputy Solicitor] and [Chief of Litigation] are away from the office right now but should be back if you want to confer with a group of your lawyers.”

At 2:48pm, COS Sanchez called Sean Malone.<sup>23</sup>

At 2:55pm, COS Sanchez received a call from Sean Malone.<sup>24</sup>

At 3:02pm, COS Sanchez e-mailed Solicitor Nilson stating, “ok to send the default letter now.”

On 12/21/2012 at 10:38pm, Deputy Mayor Maloney e-mailed different senior staff within the Mayor’s Office and the Finance Department inquiring as to who requested the default letter to be sent out that day.

At 10:53pm, COS Sanchez replied stating, “Basically the whole world insisted it be sent and I agreed. I called ACS and Malone and explained the need to protect our rights and they actually understood. It does no damage and helps to move them toward an agreement.”

*Intervention in Transition of Inventory from Xerox to the City*

At 4:06pm on 12/21/2012, COS Sanchez received an e-mail from Xerox in which Xerox offered to continue program services beyond the 12/31/2012 contract end date until the end of January 2013 in exchange for payments beyond the terms of the original contract as well as a binding letter from the City of Baltimore which would agree to postpone the transfer of assets until June 2013. Under the terms of the original contract, Xerox was to transfer all assets to Brekford by 01/01/2013.

At 10:56pm, COS Sanchez forwarded this communication to Director Zaied for his consideration.

On 12/22/2012 at 5:32am, Director Zaied replied to COS Sanchez stating, “Alex [COS Sanchez], how can the new vendor start the transition if we allow Xerox to extend the contract to June 31.[sic] They are trying to hold us and the new vendor hostage! Can we talk today?”

At 7:46am, COS Sanchez replied to Director Zaied:

“What Xerox really needs is to continue to depreciate their assets for another 6 months.<sup>25</sup> I don’t pretend to be an accountant, but apparently

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<sup>23</sup> Phone records indicate an outgoing phone call from COS Sanchez to 443-XXX-XXXX. According to investigative databases, this number is a cellular number subscribed to by Mr. Malone. Additionally, this number is recorded as the contact number for Mr. Malone in COS Sanchez’s Outlook contact listing.

<sup>24</sup> COS Sanchez received an incoming phone call from 443-XXX-XXXX. According to investigative databases, this number is a cellular number subscribed to by Mr. Malone. Additionally, this number is recorded as the contact number for Mr. Malone in COS Sanchez’s Outlook contact listing.

<sup>25</sup> Certified Public Accountants on OIG staff have analyzed the Xerox financial statements and are of the opinion

it makes a big difference on their books of [sic] they can do that. So my take on their latest offer is that they will cooperate with Brekford only through January (ensuring we don't go dark and that the transition is more seamless) at no cost to us, and they hold [t]he equipment on their books through June. Do we care about who has title to the equipment if we get a smooth transition, stay operational and keep the lines of communication open with Xerox for another month? Seems better than an abrupt end on Jan 1, holding back payments, ensuing lawsuits and the program going dark because Brekford isn't ready. But I know I'm not the expert on this issue so yes, please call at your convenience and we can discuss. We'll get a conference call together before me make any binding decisions."

At 8:43am, Director Zaid forwarded COS Sanchez's response to the DOT Legislative Liaison stating, "If Alex [COS Sanchez] decides to go with this approach we need to get better terms for the City. Work with [Former DOT Traffic Division Chief Harkness], [former DOT Deputy Director], [former DOT Traffic Engineer], and [the former Assistant Solicitor] to see how we can do that."

COS Sanchez's 7:46am e-mail is then forwarded to senior staff from DOT, the Law Department, and the Finance Department. This began an e-mail chain in which said parties attempted to determine ways for the City to minimize risk while keeping Xerox involved past 01/31/2013 and allowing Xerox to maintain possession of the ATVES assets.

At 9:16am on 12/22/2012, a former DOT Traffic Division Supervisor stated, "Why don't we just cut our losses with Xerox on 1/1? This will make it harder on the new vendor and the City if we keep Xerox involved and the problems that Brekford will face when they take over will only be delayed."

At 9:22am on 12/22/2012, the former Assistant Solicitor replied to the former DOT Traffic Division Supervisor stating, "I agree. Why are we even considering allowing them to keep title of the cameras. It isn't even possible to accomplish before the end of the year, and everything automatically becomes City property in 9 days."

The OIG understands that the normal course of business may require the Chief of Staff to contact several departments and provide constituent-type services. However, the OIG believes that the Chief of Staff took efforts to inappropriately involve himself in the ATVES bidding process and intervene on Xerox's behalf. Given the Chief of Staff's privileged insight into the confidential bidding process, and his coinciding email and phone correspondence simultaneously with City officials involved in ATVES contract award and known Xerox representatives, the OIG believes the Chief of Staff used the influence of his office in an attempt to benefit the best interests of Xerox over those of the City and taxpayers.<sup>26</sup>

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that Xerox's depreciation on ATVES equipment would have been immaterial in 2013, if not already fully depreciated.

<sup>26</sup> OIG personnel also noted other instances where COS Sanchez intervened on behalf of Xerox.

Given his position as Chief of Staff, the OIG believes that personnel within DOT, the Law Department, and the Finance Department were inclined to follow COS Sanchez's direction as if it was sanctioned by the Mayor. The OIG believes that COS Sanchez conducted these actions independently of the Mayor, as evidenced by the Mayor's vote at the Board of Estimates hearing to award the ATVES contract to Brekford despite protests from Xerox.

COS Sanchez's intervention into the contract award process and transition was in direct conflict with the Chief of Staff's responsibilities and obligations as a trusted public official and steward of good governance for the City and taxpayers.

On 05/09/2014 COS Sanchez resigned from employment with the City.

## NEW PROCUREMENT

On 09/30/2014, DOT provided the OIG with a draft copy of the RFP for the new ATVES program. The OIG made a series of recommendations that, if enacted, would strengthen the future ATVES program.

## UNRESOLVED QUESTIONS

The OIG evaluated a multifaceted program which spanned 15 years and involved multiple departments. However, the OIG was hindered by delays in the response from respective departments, incomplete and often unreliable data, and the unavailability of key personnel for interviews. As a result, the OIG was left with several questions which, to date, have not been answered.

- Why were the fixed-location speed camera units non-operational when Brekford took over operation of the ATVES program?
- How much of the \$2.2 million paid to Brekford was for actual equipment versus installation costs for the 72 PCUs?
- What was the actual number of citations issued and revenues generated during the ATVES program?
- How many vendor personnel were assigned to the ATVES program?
- Were vendor personnel assigned solely to the ATVES program or did they perform other non-program related functions for the vendor?
- How did vendor personnel levels change in response to reports of excessive erroneous citations?
- What was the nature of the COS' relationship with Xerox?
- How was the COS privy to confidential financial information regarding the accounting needs of Xerox?



## **RECOMMENDATIONS**

Currently, the City's ATVES Program remains offline while the DOT is preparing the groundwork to reinstate the program. The OIG believes that this downtime provides a prime opportunity for the City to create a program that maximizes safety while also emphasizing transparency and accountability. The OIG also believes that this is an opportunity for the City to restore credibility to a program that has had little to none, and to also become a model for ATVES programs around the nation. The OIG has made a series of recommendations to the DOT and other City agencies that, if enacted, would work to maximize the above opportunities.

Further, these recommendations are made in light of the City's new Lean Government Initiative, a management initiative based on the Toyota production system and focused on continuous improvement. The OIG hopes that the respective agencies keep this initiative in mind while considering the acceptance and implementation of these recommendations.

1. **The OIG recommends that DOT should maintain an auditable data file for each and every enforcement location. These files should be maintained at a central location and include the following items:**
  - a. The checklist of criteria for evaluating enforcement sites
  - b. Initial speed study conducted prior to implementation
  - c. Initial crash data gathered prior to implementation
  - d. Map indicating the proposed site's location within a school zone
  - e. Engineering plan for placement of enforcement unit
  - f. Annual equipment calibration certification
  - g. Any additional speed and crash studies performed after unit implementation
  - h. A log of all errors and/or issues with enforcement equipment along with the corrections and/or resolutions.

A review of files provided by DOT indicated that enforcement site information was scattered throughout several different offices. Further, the OIG was unable to locate a complete file for any of the existing enforcement sites. By creating a data file for each enforcement location the DOT can efficiently and effectively ensure that all records are complete and accurate. A complete and centralized file also enables DOT to readily refute any claims that an enforcement location is inappropriate.

2. **The OIG recommends that enforcement site selection must be based on the results of traffic studies and completed site analysis. Further, enforcement sites must be compliant with applicable laws.**

The OIG noted that DOT maintained incomplete data pertaining to the evaluation of locations selected as enforcement sites. As a result, there were several enforcement locations that the OIG was unable to determine if any evaluation criteria were used in

selecting the site. The OIG believes that all enforcement locations should be determined based on traffic studies and completed site analysis.

**3. The OIG recommends that DOT and BPD add an additional level of citation review prior to the issuance of citations.**

The structure of the review process for the ATVES process contained two levels of review. The vendor would first review events captured by hardware based on the business rules defined by the City. BPD personnel would then review and approve citations. The OIG believes that DOT personnel should review PDFs of approved citations before they are returned to the vendor for mailing. This additional level of review would help ensure that the citations received by motorists are clear and correct.

The OIG contacted other municipalities as a benchmark to gain an understanding of respective citation review processes. Montgomery County was one such municipality. Their program, run by MCPD, requires four levels of review prior to citations being mailed. The vendor initially reviews events based on the established business rules. Once sent to MCPD, personnel review citations for approval/rejection. Citations that pass this review process are then sent to the signing officer for approval. After citations are approved by the signing officer, MCPD personnel review PDFs of approved citations. Once these citations are approved, they are sent to the vendor for printing and mailing. While Montgomery County's program is an example of multilevel review processing, the OIG believes that the addition of a third level of review would be sufficient for the City's purposes.

**4. The OIG recommends that staff levels should be structured to provide sufficient review time for each citation.**

During Xerox's operation of the ATVES program, from February 1999 to December 2012, BPD personnel were spending an average of 9 seconds reviewing each citation. The OIG believes that such a short amount of time is not sufficient to properly review a citation. During Brekford's operation of the ATVES program, from January 2013 to April 2013, the average time spent reviewing each citation increased to 45-72 seconds per citation. The OIG believes that the review times were increased to a reasonable level. BPD and DOT should maintain personnel at levels that will enable each reviewer to spend 45-60 seconds reviewing each citation.

**5. The OIG recommends that City's citation review personnel be held accountable for approving erroneous citations.**

The previous contract and new draft RFP contained clauses that attempt to hold the vendor accountable for sending the City erroneous citations. The OIG believes that such accountability should be shared by personnel who approve erroneous citations. Personnel who approve multiple erroneous citations should be removed from the program and/or face administrative action. Such administrative action should be determined by the program manager based on the severity and frequency of the error approvals.

**6. The OIG recommends that the City establish a channel through which citizens can verify the validity of citations prior to going to court.**

One of the major complaints regarding erroneous citations was that citizens would have to take a day off from work in order to appear in court to challenge a citation. In many instances, paying \$40 for an erroneous citation was more cost effective than taking time off from work, if leave options were even available. The OIG recommends that the City create a hotline and/or website where citizens can contest citations prior to court. By doing so the City increases the credibility of the program while reducing the costs associated with defending potentially erroneous citations.

**7. The OIG recommends that the City create an ATVES Program website where citizens can access information.**

The ATVES program has faced heavy scrutiny and has lost credibility in the public's eye. The OIG believes that the creation of a central informational website increases transparency and strengthens the credibility of the program. Such a website should include, but not be limited to, the following:

- a. List of Enforcement Sites
  - i. Explanation of why site was selected
  - ii. Site selection data
- b. Number of Citations per site per month
- c. Errors/Issues per site
- d. Instructions on paying/contesting citations
- e. Instructions on contesting citations prior to court

The Metropolitan Police Department's website is a prime example.  
<http://mpdc.dc.gov/page/dc-streetsafe-automated-traffic-enforcement>

**REPORT RESPONSE:**

**DEPARTMENT OF TRANSPORTATION**



**CONFIDENTIAL**

November 25, 2014

Mr. Robert H. Pearre, Jr., Inspector General  
640 City Hall  
100 N. Holiday Street  
Baltimore, MD 21202

Subject: **Report 2013-0149**

Dear Mr. Pearre:

The Department of Transportation has received and reviewed the above referenced report. We have no significant exceptions with the report. I have noted your comments about the time required for some information to be provided by DOT in support of the investigation, and have reinforced our commitment to our staff to prioritize responsiveness to requests from your office. It seems that given the volume of data previously provided to Law as part of the speed camera review and negotiations, there may have been confusion over whether efforts were being duplicated, and in some cases, communication breakdowns occurred internally.

We thank you for your helpful recommendations and will consider them as we move forward with planning and improving the new speed and red-light camera programs.

Please let me know if you need any further assistance.

Sincerely,

William M. Johnson  
Director

REPORT RESPONSE:

BALTIMORE POLICE DEPARTMENT



## BALTIMORE POLICE DEPARTMENT



STEPHANIE RAWLINGS-BLAKE  
Mayor

November 26, 2014

ANTHONY W. BATTS  
Police Commissioner

Mr. Robert Pearre  
Inspector General  
Office of the Inspector General  
100 N. Holliday Street  
Baltimore, Maryland 21202

*Re: Report 2013-0149*

Dear Inspector General Pearre:

Please be advised the document has been reviewed by my staff and there are no errors or misrepresentations that we can see.

The mentioning of a diseased officers name within the report is not a Baltimore Police Department error, but is a Xerox error.

Also, for your information I wanted to advise that Sgt. Paul McMillian and Sgt. Stanley Clark of our Traffic Section have been subpoenaed by Councilman James Kraft, Monday, December 1, 2014 to testify regarding the costs of the Speed and Red Light Camera Program Failures.

Please let me know if any additional information is required by our agency.

Sincerely,



Anthony W. Batts  
Police Commissioner

AWB/dlr  
(Attachment)


c: Kalliope Parthemos, Chief of Staff, Mayor's Office  
George Nilson, City Solicitor – Law Department  
Matthew Nayden, Chief Litigation Division  
Henry Raymond, Director of Finance  
Khalil Zaied, Deputy Mayor - Operations  
William Johnson, Director, Department of Transportation  
L. Jerome Mullen, CIO – MOIT

c/o 242 W. 29th Street • Baltimore, Maryland 21211

REPORT RESPONSE

DEPARTMENT OF FINANCE



<b>FROM</b>	<b>NAME &amp; TITLE</b>	Erin Sher Smyth, Esq. CPPO, Deputy City Purchasing Agent	CITY of <b>BALTIMORE</b> <b>MEMO</b>	
	<b>AGENCY NAME &amp; ADDRESS</b>	Bureau of Purchases (410) 396-5700 231 East Baltimore Street, Suite 300		
	<b>SUBJECT</b>	Department of Finance Response to Draft Report 2013-0149		

**TO**

Mr. Robert H. Pearre, Jr., Inspector General  
 City of Baltimore  
 City Hall, Suite 640  
 100 N. Holliday Street  
 Baltimore, MD 21202  
 Dear Mr. Pearre:

**DATE:**  
 December 1, 2014

Thank you for the opportunity to review and response to the draft of Report 2013-0149. The Department of Finance believes the draft report is quite accurate overall, and our response is only the following three comments:

1. The final paragraph on page 5 states that "On 8/04/09, the scope of the contract was amended to include the addition of speed cameras." This is generally accurate, but does not include a critical distinction. We suggest that the sentence be re-worded to say: "The scope of the original RFP included speed cameras as an optional item, and ACS submitted bid prices for those optional items as part of its original price proposal. The City amended the contract to include the optional speed cameras on 8/04/09."

I have attached that original bid sheet for ease of reference, as well as the relevant language from page 36 of the solicitation.

2. The final paragraph on page 6 states that fifteen bids proposals were initially received, but all but three were non-responsive. We don't believe this is accurate. Our records show that only three companies submitted technical proposals. We have attached the Board of Estimate's bid opening sheet that shows only three vendor names.
3. The term "unresponsive" is used in the first paragraph of page 7. This term should be "non-responsive."

The Department has no comments on the draft report's recommendations.

ESS

REPORT RESPONSE

MAYOR'S OFFICE OF INFORMATION TECHNOLOGY



L. JEROME MULLEN  
Chief Information Officer (CIO)

401 E. Fayette Street, 3<sup>rd</sup> Floor Baltimore, MD 21202  
Phone: 410-396-3902

Robert Pearre  
Inspector General  
Office of the Inspector General  
100 N. Holliday Street  
Baltimore, MD 21202

November 26, 2014

Re: Report 2013-0149

Dear Mr. Pearre:

I am writing in response to draft Report 2013-0149, dated on November 21, 2014.

While I am pleased that the Mayor's Office of Information Technology (MOIT) responded in a timely fashion, I find the inconsistencies and difficulties experienced during the data acquisition process concerning. I believe this is the direct result of the lack of; authoritative data governance, standardized data architecture, and deficiencies with cross-agency support.

MOIT will do its part by working to mitigate future issues, and we recommend development of a working group to address these challenges holistically. At the conclusion of this process, I am available to discuss this matter in further detail.

As you prepare to finalize this report, please let me know if there is anything additional our agency can do to be of assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jerome Mullen".

Jerome Mullen  
Chief Information Officer

Cc: Anthony Batts, Police Commissioner BPD  
William Johnson, Director DOT  
George Nilson, City Solicitor  
Matthew Nayden, Chief Litigation Division  
Kaliopé Parthemos, Chief of Staff  
Henry Raymond, Director Finance  
Khalil Zaied, Deputy Mayor