

1 D. Scott Elliot (SBN 076323)  
2 Attorney at Law  
3 Riverside, CA 92503  
4 Attorney for Defendant, Viktors A. Rekte

5 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**  
6 **FOR THE COUNTY OF RIVERSIDE**

7 THE PEOPLE OF THE STATE )  
8 OF CALIFORNIA, )  
9 Plaintiffs, )  
10 vs. )  
11 VIKTORS A. REKTE, )  
12 Defendant. )

**Case No.:** RR182259VR  
**Citation No.:** RR182259

**MEMORANDUM OF POINTS  
AND AUTHORITIES SUPPORT  
OF DEFENDANT'S MOTION  
IN LIMINE TO EXCLUDE  
EVIDENCE OF CITY OF  
RIVERSIDE AUTOMATED  
LIGHT TRAFFIC  
ENFORCEMENT CITATION  
NO. RR182259**

(Filed Concurrently With the  
Declaration of Sean Paul Stockwell)

Trial Date: May 7, 2013  
Dept.: MV "2"

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18 COMES NOW Defendant VIKTORS A. REKTE by and through his attorney, D. Scott  
19 Elliot, who hereby submits this MEMORANDUM OF POINTS AND AUTHORITIES IN  
20 SUPPORT OF DEFENDANT'S MOTION TO EXCLUDE EVIDENCE OF CITY OF  
21 RIVERSIDE AUTOMATED RED LIGHT TRAFFIC ENFORCEMENT CITATION NO.  
22 RR182259. It is Defendant's contention that the Memorandum of Points and Authorities along  
23 with the Declaration of Sean P. Stockwell and the Exhibits attached thereto will clearly show  
24 that the Automated Red Light Enforcement citation issued by the City of Riverside for  
25 violation of California Vehicle Code Section 21453(a) on October 26, 2012 was generated by  
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1 an Automated Red Light Enforcement (hereinafter referred to as "ALRE") camera system  
2 installed and operated by the City of Riverside at the Tyler Street-SR 91 intersection in a  
3 manner that: 1) is in violation of California law and the standards and guidelines set forth in  
4 the California Manual on Uniform Traffic Control Devices (MUTCD, 2012 Edition) as per  
5 California Vehicle Code Section 21400; and 2) is in violation of both California MUTCD  
6 Section 4D.26 (inclusive of Table 4D-102) relative to Minimum Yellow Change Interval  
7 Timing on roads and highways within the State of California and California MUTCD Section  
8 4D.12 pertaining to the visibility, aiming, and shielding of signal faces.  
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12 Moreover, Defendant asserts that his Right to Due Process as construed in *Brady v.*  
13 *Maryland* (1963) 373 U.S. 83 was violated by the prosecution's failure to turn over their  
14 evidence against Defendant as *Brady* obligates them to do. Such evidence includes a copy of  
15 the video clip upon which the ARLE citation was based (by download or other means) in  
16 addition to the declarations of Redflex Traffic Systems' out-of-state personnel relative to the  
17 prosecution's expected attempt to establish foundation and other matters relative to the  
18 operation of the subject ARLE system.  
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### 21 **STATEMENT OF FACTS**

22 On October 26, 2012 Defendant VIKTORS A. REKTE was proceeding southbound on  
23 Tyler St. toward SR-91 in the right-hand turn lane intending to turn right onto the freeway on-  
24 ramp located immediately before the freeway overpass. As depicted in Exhibit "1" attached to  
25 the Declaration of Sean Paul Stockwell (hereinafter "Stockwell Declaration") filed concurrently  
26 herewith, the right-turn lane begins to veer toward the right at an increasing angle such that it is  
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1 no longer parallel to the other lanes of traffic which results in a triangular-shaped “no man’s  
2 land” between the right through lane and the right-turn lane that terminates at the limit line  
3 common to all five traffic lanes. As Defendant began slowing in order to turn right onto SR 91,  
4 his attention was focused primarily on the vehicle in front of him and not exclusively on the  
5 traffic signal which is located approximately 20 degrees off to the left.  
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8 As a consequence, instead of clearing the intersection before the light changed to red as  
9 Defendant had anticipated, Defendant’s vehicle had just crossed the limit line when the ALRE  
10 system’s flash triggered in order to photograph Defendant (as depicted on the third photo from  
11 the top on the Notice of Traffic Violation).  
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13 Although the video of the alleged violation taken by the ARLE system was thereafter  
14 reviewed online by Defendant at the [www.photonotice.com](http://www.photonotice.com) web site indicated on the citation,  
15 the system would not allow the video clip to be downloaded nor did it contain any kind of video  
16 index numbers. As a consequence, one of the critical foundational facts, namely, the yellow light  
17 interval (which purports to be 3.65 seconds on the citation) could not be independently verified.  
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20 Thereafter, Defendant’s attorney requested Mr. Sean Stockwell, an insurance industry  
21 loss prevention engineer with a B.S. in Physics, to evaluate the installation and operation of the  
22 ARLE system at the subject intersection in order to determine whether it met the requirements  
23 of the California Vehicle Code and the California Manual on Uniform Traffic Control Devices  
24 (MUTCD, 2012 Edition). Accordingly, Mr. Stockwell conducted a site visit and inspection on  
25 April 4, 2013 during which time he took photos and videos which he subsequently compared to  
26 photos and videos taken of the same intersection on September 14, 2012 and September 17,  
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1 2012 (which had been taken in connection with his work on another similar case),  
2 approximately five weeks *prior* to the issuance of the citation to defendant in the instant case.  
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4 As more completely set forth in his declaration, Mr. Stockwell analyzed two video clips  
5 of the subject traffic signal's operation on both September 14, 2012 (prior to Defendant's  
6 citation) and April 4, 2013 (subsequent to Defendant's citation) using Microsoft Windows  
7 Movie Maker software and noted on both occasions that the yellow light interval was 3.50  
8 seconds, less than the 3.60 second minimum in a 35 mph zone as required by MUTCD Section  
9 4D.26, inclusive of Table 4D-102 (the two September 14, 2012 video clips along with the two  
10 April 4, 2013 video clips will be made available to the Court to view during the course of a  
11 Power Point presentation at the time of the hearing on Defendant's Motion to Exclude during  
12 the testimony of defendant's engineering expert, Sean Stockwell).  
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15 Of perhaps even greater importance, Mr. Stockwell's investigation revealed that the  
16 ARLE camera system employed by the City of Riverside at the Tyler St.-SR 91 intersection was  
17 not installed properly given the geometry of the intersection in that it violates a number of  
18 provisions of the California MUTCD. For example, there is an approximate 20 degree variance  
19 between the sight line that a driver would use to maintain separation from the car in front of him  
20 at the limit line and the sight line the driver would use to view the signal, which places all  
21 drivers in the right hand turn lane on the horns of the following dilemma—*Do I keep my eyes on*  
22 *the car in front of me or do I look 20 degrees to the left to keep my eyes on the traffic control*  
23 *signal and risk colliding with the car in front of me?*  
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1 Mr. Stockwell will testify that in addition to the skewed geometry of the Tyler-SR 91  
2 intersection's layout, the City of Riverside and/or Redflex Traffic Systems (the City's ARLE  
3 equipment vendor) elected to position the only traffic control signal available to motorists in the  
4 right-turn lane in such a way that the primary consideration of the signal's placement, aiming,  
5 and adjustment was to optimize the visibility of the signal face to the ARLE camera located on  
6 the median strip. Thus, the patently illegal act of rotating the traffic control signal on its axis to  
7 point *towards the ARLE camera on the median and away from oncoming drivers* in the right  
8 turn lane (thus causing a 40% occlusion of the diameter of each of the traffic control signal's  
9 lenses) when added to the 20 degree offset in drivers' sightlines resulting from the position of  
10 the signal pole, combines to cause a significant occlusion of the traffic control signal to the  
11 approaching traffic in the right hand turn lane at the Tyler St.-SR 91 intersection.  
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16 **1. CALIFORNIA VEHICLE CODE SECTION 21400 PROVIDES**  
17 **THAT THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC**  
18 **CONTROL SHALL BE THE STANDARD FOR ALL OFFICIAL**  
19 **TRAFFIC CONTROL DEVICES.**

20 California Vehicle Code Section 21400 provides in pertinent part:

21 **21400 Uniform Standards**

22 (a)(1) The Department of Transportation shall, after consultation  
23 with local Agencies and public hearings, adopt rules and regulations  
24 prescribing uniform standards and specifications for all official traffic  
25 control devices placed pursuant to this code, including but not limited  
26 to, stop signs, railroad warning approach signs, street name signs, line  
27 and markings on the roadway...

28 The California Manual on Uniform Traffic Control Devices (MUTCD, 2012 Edition) is  
the result. The Introduction to the MUTCD states in pertinent part:

1           **Standard:** The California MUTCD is hereby adopted as, and shall be  
2 the standard for all official traffic control devices, under Section  
3 11340.9(h) of the California Government Code and Section 21400 of the  
4 California Vehicle Code...

5 Consequently, the thousands of standards set forth in the MUTCD operate with the force of law  
6 throughout the State of California.

7           **2. THE CITY OF RIVERSIDE’S AUTOMATED RED LIGHT**  
8           **ENFORCEMENT SYSTEM AT THE TYLER ST.- SR 91**  
9           **INTERSECTION VIOLATES MULTIPLE SECTIONS OF**  
10           **THE CALIFORNIA MUTCD AND THUS DEFENDANT’S**  
11           **CITATION PURSUANT TO VEHICLE CODE SECTION**  
12           **21451(A) SHOULD BE DISMISSED.**

13           California MUTCD Table 4D-102 (CA) entitled “Minimum Yellow Change Interval  
14 Timing” contains a formula for properly determining the length of yellow lights which is  
15 followed by a two column chart with the first column entitled “Posted Speed or Prima Facie  
16 Speed” (in mph) and the second column entitled “Minimum Yellow Interval” (in seconds).  
17 According to Table 4D-102 (CA), the minimum yellow interval for a light at an intersection  
18 with a posted speed of 35 miles per hour (such as Tyler St. southbound) is 3.6 seconds.  
19 **Regrettably, neither the City of Riverside nor Redflex Traffic Systems allows a defendant**  
20 **cited by an ARLE system to download the video of an alleged violation nor does the online**  
21 **video clip made available to defendants contain any type of video index which thus**  
22 **precludes independent confirmation of the yellow light interval.** As set forth in the  
23 Declaration of Sean Paul Stockwell, video recordings were made of the yellow light interval at  
24 the Tyler St.-SR 91 intersection both *before* and *after* the date of Defendant’s citation and the  
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1 yellow light interval was found to be 3.5 seconds on both occasions—a clear violation of the  
2 required yellow light interval of 3.6 seconds specified by Table 4D-102 (CA).  
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4 In addition to the foregoing, the California MUTCD, Section 4D.12, entitled Visibility,  
5 Aiming, and Shielding of Signal Faces, provides in pertinent part:

6 The primary consideration in signal face placement, aiming, and adjustment  
7 *shall* be to optimize the visibility of signal indications to approaching traffic.  
8 (Emphasis added.)

9 During Mr. Stockwell’s site visits to the Tyler St.-SR 91 intersection on September 14, 2012  
10 and April 4, 2013, he noted that the traffic control signal was aimed not at the approaching  
11 traffic, but rather at the ARLE camera located on the median of Tyler Street. As set forth on  
12 page 5, lines 2:10 of Mr. Stockwell’s declaration:  
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14 I observed that a significant portion of the light’s illuminated surface  
15 was occluded from view while standing on the sidewalk immediately  
16 adjacent to the right hand turn lane’s limit line. I took a photograph  
17 from this perspective. I then crossed to the median, where the ARLE  
18 camera is located. By standing almost directly behind the ARLE  
19 camera, I was able to observe that the entire illuminated surface of the  
20 traffic light was visible. I took another photograph from this  
21 perspective.

22 Based on Mr. Stockwell’s observations, he concluded that the traffic control signal’s aiming  
23 and adjustment had in fact been optimized for the visibility of the ARLE camera system, *not for*  
24 *the approaching traffic*—in clear violation of MUTCD Section 4D.12.

25 Mr. Stockwell then undertook to calculate the percentage of the occlusion resulting from  
26 the fact that the signal face of the only traffic light available to drivers in the right-hand turn  
27 lane points toward the ARLE camera on the median: he concluded that approximately 40% of  
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1 the total diameter of the traffic control signal's lenses are obscured to a driver approaching the  
2 intersection in the right-hand turn lane.

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4 **3. CALIFORNIA VEHICLE CODE SECTION 21462 PROVIDES**  
5 **TWO EXCEPTIONS TO THE RULE THAT TRAFFIC**  
6 **CONTROL SIGNALS MUST BE ALWAYS BE OBEYED.**

7 California Vehicle Code Section 21462 provides in relevant part:

8 **Obedience to Traffic Control Signals** The driver of any vehicle...shall  
9 obey the instructions of any local traffic signal applicable to him *and placed*  
10 *as provided by law*, unless otherwise directed by a police officer or traffic  
11 officer *or when it is necessary for the purposes of avoiding a collision...*  
(Emphasis added.)

12 The case at bar, while only involving an infraction, nevertheless poses several significant issues  
13 concerning whether the ARLE camera system as installed at the southbound Tyler St.-SR 91  
14 intersection comports with the basic requirements of California Vehicle Code Section 21400 and  
15 the California Manual on Uniform Traffic Control Devices (2012 Edition) which provides state-  
16 wide standards for every kind of traffic control device, including Automated Red Light  
17 Enforcement (ARLE) systems. As demonstrated above, it cannot be said that the City of  
18 Riverside and/or its ARLE vendor, Redflex Traffic Systems, Inc. met their legal duty to  
19 implement ARLE camera technology at the Tyler St.-SR 91 intersection in accord with the  
20 requirements mandated by California Law. Moreover, the hazard they created by forcing  
21 drivers in the right-hand turn lane to have to choose whether to look in the direction they are  
22 driving or 20 degrees off to their left at a significantly occluded traffic control signal (aimed  
23 directly at the ARLE camera located on the median strip instead of drivers in the right-hand turn  
24 lane) could foreseeably result in bodily injury or even death to drivers, passengers and  
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1 pedestrians. Accordingly, the fact that the Defendant apparently had his eyes focused on where  
2 he was going rather than on the illegally positioned traffic control signal 20 degrees off to his  
3 left when the ARLE system triggered should not result in a \$500 red light citation.  
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5 **4. THE PEOPLE’S FAILURE TO MAKE A DOWNLOADABLE**  
6 **VIDEO CLIP CONTAINING A VIDEO INDEX OF THE ARLE**  
7 **SYSTEM CITATION AVAILABLE TO DEFENDANT**  
8 **ALONG WITH COPIES OF THE DECLARATIONS OF**  
9 **REDFLEX PERSONNEL IN ARIZONA ATTESTING TO**  
10 **THE SYSTEM’S OPERATION ARE VIOLATIONS OF HIS**  
11 **RIGHTS UNDER BRADY v. MARYLAND (1963) 373 U.S. 83**

12 Notwithstanding the fact that this case happens to have arisen from an infraction,  
13 Defendant is nevertheless entitled to assert any and all violations of his Constitutional rights.  
14 As noted previously, the [www.photonotice.com](http://www.photonotice.com) web site referenced on the citation would not  
15 allow the video clip pertaining to Defendant’s citation to be downloaded nor did the video clip  
16 contain the customary index numbers—which thereby foreclosed independent verification not  
17 only of the yellow light interval, but the other signal light intervals as well. On the back of  
18 Defendant's citation it states: "The vehicle identified on the front was photographed in  
19 violation of a traffic signal. You may *see* the photographs and video. Contact [the] Riverside  
20 Police Department..." (Emphasis added).  
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23 In *City of Los Angeles v. Superior Court* (2002) 29 Cal.4<sup>th</sup> 1, 52 P.3d 129, 124  
24 Cal.Rptr.2d 202, the California Supreme Court stated:

25 Under *Brady, supra*. [citations], the prosecution must disclose to the defense any  
26 evidence that is “favorable to the accused” and is “material” on the issue of either  
27 guilt or punishment. Failure to do so violates the accused’s constitutional right to  
28 due process...Evidence is material under the *Brady* standard “if there is a

1 reasonable probability that, had the evidence been disclosed to the defense, the  
2 result of the proceeding would have been different.” Id. At p.

3 In the present case, the prosecution seems to have taken great pains to ensure that a copy  
4 of the actual video clip (with its video index numbers intact) upon which the Defendant’s ARLE  
5 citation was based was not made available to the Defendant—a clear violation of *Brady*. As  
6 revealed by the testimony of Defendant’s engineering expert, Sean Stockwell, the yellow light  
7 interval was 3.50 seconds, below the statutory minimum, both before and after the Defendant’s  
8 October 26, 2012 citation, which gives rise to a strong inference that the system was operating in  
9 violation of the Vehicle Code on that date as well. Had Defendant taken advantage of the  
10 Riverside Police Department’s generous offer to come to the station and *see* the video clip, the  
11 question of whether the system was actually operating properly would remain unanswered since  
12 there is nothing to suggest that a copy of the video clip would have been provided. If a copy of  
13 the actual video clip (with video index numbers intact) had been produced in accord with the  
14 prosecution’s *Brady* obligation, the defense position in this matter would most certainly be  
15 enhanced.  
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20 Similar logic would prevail with regard to the anticipated declarations of Redflex Traffic  
21 Systems’ out-of-state personnel that the prosecution will undoubtedly seek to introduce at trial  
22 regarding the foundational aspects of the installation and/or operation of the ARLE system at the  
23 Tyler St.-SR 91 intersection. Under *Brady, supra.* and its progeny, such material *must* be  
24 disclosed in order to comport with Constitutional guarantees of Due Process; however, the local  
25 custom and practice seems to be to withhold all such material until trial commences and then  
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1 ambush the defendant. To argue that Defendant's Constitutional rights under *Brady, supra.*,  
2 have not been violated in such circumstances would indeed be a fool's errand.

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4 **CONCLUSION**

5 For all the foregoing reasons, Defendant Viktors A. Rekte's Motion in Limine to Exclude  
6 Evidence of the Automated Red Light Citation he received on October 26 2012, for allegedly  
7 violating California Vehicle Code Section 21453(a) as claimed by The People based on an  
8 improperly installed and operated ARLE system at the Tyler St.-SR 91 intersection that fails to  
9 meet key requirements of the California Vehicle Code and the California Manual on Uniform  
10 Traffic Control Devices (MUTCD, 2012 Edition) should be granted. Moreover, the case must  
11 be dismissed in light of the serious and substantial violations of Defendant's Constitutional  
12 Rights as enumerated above. Accordingly, the pending infraction case against Defendant,  
13 Viktors A. Rekte, based on the City of Riverside's Automated Red Light Citation No.  
14 RR182259 should be dismissed in light of the People's inability to prove beyond a reasonable  
15 doubt that an infraction was committed.  
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20 Respectfully submitted,

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23 \_\_\_\_\_  
24 D. Scott Elliot, Esq.  
25 Attorney for Defendant,  
26 VIKTORS A. REKTE

27 DATED: May 7, 2013  
28

1 D. Scott Elliot (SBN 076323)  
2 Attorney at Law  
3 Riverside, CA 92503  
4 Attorney for Defendant, Viktors A. Rekte

5  
6 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**  
7 **FOR THE COUNTY OF RIVERSIDE**

8 THE PEOPLE OF THE STATE )  
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12 VIKTORS A. REKTE, )  
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14 \_\_\_\_\_ )

**Case No.:** RR182259VR  
**Citation No.:** RR182259

**DECLARATION OF SEAN PAUL STOCKWELL**

Trial Date: May 7, 2013  
Dept.: MV "2"

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16 I, Sean Paul Stockwell, do hereby declare and state as follows:

17 1. I earned a Bachelors of Science in Physics, with a Mathematics minor, in 1999  
18 from the Virginia Military Institute and was immediately commissioned as an officer in the  
19 United States Navy. After serving aboard *USS Gonzalez* (DDG 66), I attended and graduated  
20 from the Naval Nuclear Power Training Center and Nuclear Power Training Unit. I was then  
21 assigned to the Reactor Department of *USS Nimitz* (CVN 68), where my duties included  
22 supervising over 20 personnel in the operation of one of two reactor propulsion plants aboard.  
23 These duties required complete mastery of all reactor systems and fundamental understanding of  
24 all engineering principles in order to ensure safe operation and to respond to any emergencies  
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1 that occurred. During this tour, I was tested and interviewed for qualification as a Nuclear  
2 Engineering Officer. This qualification, administered by Naval Reactors, designates an officer as  
3 competent to take complete authority over a shipboard nuclear power plant due to their mastery  
4 of the systems from an engineering and operational point of view. I left active duty in October,  
5 2006 and thereafter spent one year training as a Loss Prevention Engineer in the insurance  
6 industry. I now serve as a Lieutenant Commander in the U.S. Naval Reserve, and am currently  
7 employed as a Loss Prevention Engineer by a large commercial lines insurer. To perform my  
8 duties as a Loss Prevention Engineer, my company has sent me to several basic and advanced  
9 training courses over the past six years. These courses universally require an extensive  
10 background in mathematics and general engineering principles. I apply these principles for  
11 facility and natural hazards or boiler and machinery surveys at clients' facilities on a daily basis.  
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16 2. At the request of Defendant's attorney, D. Scott Elliot, I performed inspections of  
17 the intersection of Tyler St. and SR-91 and conducted surveys of the traffic light and the  
18 associated Automated Red Light Enforcement (ARLE) Camera System used to govern traffic  
19 turning right from Tyler Avenue to the westbound SR-91 on-ramp. My initial inspection and  
20 survey was performed on September 14, 2012 in relation to another ARLE case; my subsequent  
21 inspection and survey on April 4, 2013 was done in connection with the current case pending  
22 against Defendant Viktors A. Rekte. On both occasions, I shot two video clips of the traffic  
23 light located on the southwest corner of the intersection cycling from green to yellow to red. I  
24 also took photos of the traffic light from the sidewalk adjacent to the right turn lane's limit line  
25 and from the ARLE camera located in the median of Tyler Street on September 14, 2012,  
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1 September 17, 2012 and on April 4, 2013. Close-up shots of the traffic light as viewed from the  
2 sidewalk below the light were also taken. Other photos were taken to assist me in gaining  
3 perspective of the relative positions of all equipment at the intersection. All photos and videos  
4 were taken with my Apple iPhone 4S. During these surveys, I also noted signs indicating a local  
5 speed limit of 35 mph on Tyler Street.  
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8 3. After completing the foregoing inspections and surveys on both occasions, I  
9 downloaded all photos and videos to my personal computer. Using Microsoft Windows Movie  
10 Maker, I observed the videos cycling from green to yellow to red. The Windows Movie Maker  
11 software provides a frame-by-frame comparison capability utilizing video index numbers, in  
12 addition to an elapsed time indication for each frame relative to the start of the video. The videos  
13 shot on both occasions provided approximately three frames for every 0.10 seconds elapsed.  
14 Using these capabilities, I was able to determine that the time the yellow light was illuminated in  
15 all four videos was 3.50 seconds, with an accuracy of +/-0.07 seconds. Per Section 4D.26 of the  
16 California Manual on Uniform Traffic Control Devices (California MUTCD), "The minimum  
17 yellow change interval shall be in accordance with Table 4D-102(CA). The posted speed limit,  
18 or the prima facie speed limit established by the California Vehicle Code (CVC) shall be used  
19 for determination of the minimum yellow change interval for the through traffic movement."  
20 Table 4D-102(CA) states that for a speed limit of 35 mph, the minimum yellow change interval  
21 shall be 3.6 sec. Therefore, I concluded on both occasions that the yellow change interval for the  
22 traffic light governing the right hand turn lane from Tyler Street onto the westbound SR-91 on-  
23 ramp was 0.10 seconds below the minimum specified by the California MUTCD.  
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1           4.       During both surveys, I noted a significant offset between the centerline of the right  
2 turn lane and the traffic light, which was located several yards left of the centerline. I reviewed  
3 the two photographs of Mr. Rekte's vehicle that were taken on October 26, 2012 by the ARLE  
4 camera located on the Tyler Street median. One of these photographs showed a vehicle  
5 preceding Mr. Rekte's vehicle. Using a Google Earth overhead photograph of this intersection  
6 and photographs of the traffic light taken on the day of the incident and during my September  
7 14, 2012 survey, I plotted the approximate position of the vehicle preceding Mr. Rekte's vehicle  
8 as shown in the ARLE camera's photograph and the traffic light on Google Earth. The Google  
9 Earth overhead shot showed a white vehicle that was in approximately the same position as Mr.  
10 Rekte's vehicle was shown to be located by the ARLE camera photo. Using the Google Earth's  
11 measuring tool, I was able to plot lines of true bearing from the white vehicle to both the traffic  
12 light and the plotted approximate position of a vehicle that would precede the white vehicle,  
13 thereby simulating the traffic conditions Mr. Rekte faced on the day of the incident. I concluded  
14 that in order to maintain spacing from the vehicle preceding him and observe the status of the  
15 traffic light, Mr. Rekte would have to shift his line of sight by approximately 20 degrees when at  
16 the limit line.

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22           5.       While conducting my initial survey in September, 2012, it appeared to me that the  
23 traffic signal was aimed not at the approaching traffic, but rather at the ARLE camera located on  
24 the median of Tyler Street. On April 4, 2013, I observed that the traffic signal was in the exact  
25 same alignment in relation to the ARLE camera on the median. I observed that a significant  
26 portion of the light's illuminated surface was occluded from view while standing on the  
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1 sidewalk immediately adjacent to the right hand turn lane's limit line. I took a photograph from  
2 this perspective. I then crossed to the median, where the ARLE camera is located. By standing  
3 almost directly behind the ARLE camera, I was able to observe that the entire illuminated  
4 surface of the traffic light was visible. I took another photograph from this perspective. The  
5 California MUTCD, Section 4D.12, entitled Visibility, Aiming, and Shielding of Signal Faces,  
6 states "The primary consideration in signal face placement, aiming, and adjustment shall be to  
7 optimize the visibility of signal indications to approaching traffic." Based on my observation, it  
8 is apparent that the signal aiming and adjustment has been optimized to the visibility of the  
9 ARLE camera system, not to the approaching traffic. Following this observation, I decided that  
10 it would be worthwhile to determine the percentage of the traffic signal's illuminated face that  
11 was obstructed to the motorist traveling in the right hand turn lane. The substantial occlusion of  
12 this traffic signal to drivers of oncoming vehicles in the right hand turn lane approaching the  
13 Tyler St.-SR 91 intersection is based on two factors: 1) the significant offset of the traffic light  
14 to the left of the centerline of the right turn lane as described in Paragraph 4 of this declaration,  
15 and 2) the presence of a visor on the traffic signal, which causes an occlusion due to the  
16 alignment of the traffic light to the ARLE camera's location as described in Paragraph 5 of this  
17 declaration. Using the earlier-described overhead view from Google Earth, I plotted lines of  
18 bearing between the traffic signal and the driver position in the previously described white  
19 vehicle and the median ARLE camera, respectively. I discovered a divergence of 24 degrees. I  
20 then printed a copy of the photograph of the bottom of the ARLE camera and measured the  
21 diameter of the traffic control signal lenses and the length of the signal visor with a ruler. This  
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1 provided me with a ratio: the signal visor was 0.91 times as long as the diameter of the traffic  
2 signal lens. Using the line of bearing from the ARLE camera to the traffic signal as the line  
3 perpendicular to the signal face, a right triangle was generated. The occluded portion of the  
4 traffic signal lens could then be expressed as  $0.91D \cdot \tan 24$ , where D is the total diameter of the  
5 lens. When calculated, it was found that approximately 41% of the total diameter of the lens is  
6 occluded when viewed at the limit line from the typical driver's perspective.  
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9           6.       A printed copy of the Power Point slides I prepared for Trial which includes the  
10 video clips I shot along with a summary of my findings and conclusions from the site visits I  
11 conducted on September 14, 2012 and April 4, 2013 is attached hereto as Exhibit "1."  
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13  
14 I declare under penalty of perjury under the laws of the State of California that the foregoing is  
15 true and correct.  
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18 Executed this 7<sup>th</sup> day of May at Riverside, California.  
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20 \_\_\_\_\_  
21 Sean Paul Stockwell,  
22 Declarant  
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