


POLICY DIRECTIVE

<p>TRAFFIC OPERATIONS POLICY DIRECTIVE</p>	<p>NUMBER: 14-01 Revision 1</p>	<p>PAGE: 1 of 5</p>
<p>THOMAS P. HALLENBECK, DIVISION CHIEF </p>	<p>DATE ISSUED: August 5, 2015</p>	<p>EFFECTIVE DATE: January 1, 2016</p>
<p>SUBJECT: Installation of Automated Red Light Enforcement Systems by Local Governmental Agencies on the State Highway System</p>	<p>DISTRIBUTION</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> All District Directors <input checked="" type="checkbox"/> All Deputy District Directors - Traffic Operations <input checked="" type="checkbox"/> All Deputy District Directors - Maintenance <input checked="" type="checkbox"/> All Deputy District Directors - Construction <input type="checkbox"/> All Deputy District Directors - Design <input checked="" type="checkbox"/> All Deputy District Directors - Transportation Planning <input checked="" type="checkbox"/> Chief, Division of Engineering Services <input checked="" type="checkbox"/> Chief Counsel, Legal Division <input checked="" type="checkbox"/> Publications (California MUTCD Website) www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm <input checked="" type="checkbox"/> Headquarters Division Chiefs for: Construction, Maintenance, and Design 	
<p>DOES THIS DIRECTIVE AFFECT OR SUPERSEDE ANOTHER DOCUMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>IF YES, DESCRIBE</p> <p>Traffic Operations Policy Directive 14-01 Installation and Use of Automated Red Light Enforcement Systems on the State Highway System Traffic Operations Policy Directive 05-01 Minimum Yellow Light Change Interval</p>	
<p>WILL THIS DIRECTIVE BE INCORPORATED IN THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>	<p>IF YES, DESCRIBE</p>	

DIRECTIVE

Automated red light enforcement (ARLE) systems as described within California Vehicle Code (CVC) section 21455.5 may be owned and operated by local governmental agencies on the State Highway System (SHS).

The California Department of Transportation (Caltrans) requires that the safety benefits of an ARLE system shall be determined by a traffic engineering study initiated by the local governmental agency requesting to install an ARLE system under an encroachment permit.

POLICY DIRECTIVE**IMPLEMENTATION REQUIREMENTS**

1. The safety benefits of the ARLE system must be demonstrated through an initial and follow up traffic engineering studies of each intersection. A follow-up traffic engineering study is required every five years.
2. The local governmental agency is responsible for the installation, operation, maintenance, and any expenses incurred for the implementation of the ARLE system.
3. The local governmental agency must use the encroachment permit process for authority to install an ARLE system on the SHS.
4. As part of the annual renewal of the encroachment permit, the local governmental agency must provide a copy of the report required to be submitted annually to the Judicial Council, as referenced in the California Vehicle Code, section 21455.5.

INSTALLATION REQUIREMENTS

1. Caltrans may issue an encroachment permit to a local governmental agency to install the ARLE system, for a time period not to exceed 5 years.
2. The local governmental agency's contractor will be required to obtain a separate encroachment permit to install the ARLE system.
3. The local governmental agency's contractor will be required to obtain a separate encroachment permit to maintain the ARLE system.
4. When an ARLE system is proposed for installation, the local governmental agency should contact the Caltrans District Encroachment Permit Office for submittal requirements. The minimum submittal shall include a permit application for review and the required traffic engineering study for the proposed signalized intersection.
5. The ARLE system installation plans shall:
 - a. Illustrate all electrical, electronic, civil, and mechanical work pertaining to the ARLE system.
 - b. Show the electrical installation, that it operates independently, and is powered separately from Caltrans' traffic signal equipment and assembly.
 - c. Specify an independent detection system (installed by the local governmental agency) if the existing traffic signal detection does not meet the ARLE system requirements.
 - d. Utilize separate conduit with distinctively marked pull boxes.
 - e. Not affect in any way the signal display, timing, nor interfere with the operation of Caltrans' traffic signal equipment.
6. In the event that Caltrans proposes modifications to the traffic signal system, the local governmental agency is responsible for relocating all ARLE system equipment and related costs. The time period for proposed modification work will be provided by the District Traffic Engineer to the local governmental agency.

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7. The ARLE system shall meet all current safety requirements pertaining to intersection operations and all applicable codes.
8. For traffic signals operated by Caltrans, the District:
 - a. Will provide written information on yellow change interval and electrical red output to the local governmental agency installing the ARLE system upon request. Subsequent written yellow change interval will be provided to the local governmental agency upon request. TOPD 05-01 Minimum Yellow Light Change Interval is now superseded by CA MUTCD 2014 Section 4D.26.
 - b. Does not need to notify or seek approval from the local governmental agency which operates an ARLE system for changing signal timing, maintenance, and operations of traffic signals on the SHS which may have an ARLE system in place. Common courtesy would suggest that the local governmental agency be informed.
 - c. Approves access to the traffic signal cabinet to maintain the ARLE system. Access must be coordinated with Caltrans' Electrical Maintenance and/or Traffic Signal Operations staff to ensure a Caltrans representative will be on site. The traffic signal cabinets shall not be accessed without the presence of Caltrans staff.
9. Caltrans reserves the right to disconnect the ARLE system at the local governmental agency cost.
10. Caltrans will not be responsible for handling complaints for an ARLE system on behalf of a local governmental agency. The local governmental agency will provide to the District Deputy Director of Traffic Operations their contact information to be used for referring complaints regarding the ARLE system, and must keep this information current.
11. Additional site specific performance evaluation requirements may be included in the permit agreement for each ARLE system installed on the SHS.

Caltrans review of the plans described in item 5 (a through e) above is limited to obvious errors only.

EXISTING ARLE SYSTEM REQUIREMENTS

All existing ARLE system installations shall be in compliance with this policy by January 1, 2016, with the exception of a previously installed ARLE system which has submitted an engineering study after January 1, 2011.

TRAFFIC ENGINEERING STUDY

The traffic engineering study must:

1. Take into account enforcement data and traffic collisions associated to specific traffic signal vehicular phase(s).
2. Be prepared under the direction of and signed by a California licensed professional engineer.
3. Be conducted by the local governmental agency at their expense.
4. Be submitted to the Deputy District Director of Traffic Operations for review with their application as part of the permit approval.

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The traffic engineering study for installation of an ARLE system on the SHS, and the follow-up traffic study for encroachment permit renewal, shall consider the following:

- The original signal warrant (if available) that precipitated the installation of the signal as outlined in the California Manual on Uniform Traffic Control Devices (CA MUTCD) Chapter 4C. *Traffic Control Signal Needs Studies*.
- Signal Timing in general.
- Determination of yellow change interval in accordance with the CA MUTCD Section 4D.26.
- Analysis of collision data and identification of collision patterns and the expected reductions in types and severity of collisions that will be obtained through implementation of the ARLE system, using the latest scientific methods to quantify the expected changes in intersection safety performance.
- Comparison of collision frequency, rates, and types to other similar intersections in the area and on similar road types.
- Contacting parties familiar with the intersection, including law enforcement and maintenance personnel, to determine their observations and comments regarding the collisions.
- Field review to observe site conditions and observe drivers to determine their behavior patterns.
- Evaluation of previous countermeasure(s) implemented to address collision or driver behavior patterns.
- Identification and evaluation of possible countermeasure(s) to address collision or driver behavior patterns.
- Evaluation of citations being issued at the intersection, specifically through movement on red, left turn on red, and right turns where right turns are prohibited on red.
- Including documentation of safety performance based upon a systematic comparison of the intersection's performance before and after the treatment with the ARLE system.

DELEGATION

No new delegations of authority are created under this policy.

BACKGROUND

ARLE systems can be an effective tool for reducing the intentional running of red lights and decreasing collisions related to red light running.

Per the Texas Transportation Institute, there are more than 100,000 collisions per year in the United States of America involving drivers running a red light resulting in 90,000 injuries and 1,000 fatalities annually. Over half of red light running fatalities are pedestrians and occupants in other vehicles who are hit by red light runners.

National Cooperative Highway Research Program (NCHRP) Report 729 *Automated Enforcement for Speeding and Red Light Running*, December 2012, notes that the key elements of a successful automated enforcement program include having a solid engineering foundation, employing a multidisciplinary approach, regular monitoring and evaluation, and ensuring that the entire program is transparent to the public and the media. The overall goal of any automated enforcement program should be to reduce collisions.

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NCHRP Report 731 *Guidelines for Timing Yellow and All Red Intervals at Signalized Intersections*, published in 2012, provided an evaluation of signal timing practices used across the nation with an objective for the project to prepare a comprehensive and uniform set of recommended guidelines for determining safe and operationally efficient yellow and red clearance intervals at signalized intersections. The recommendations from NCHRP Report 731 are currently being considered for inclusion within the current CA MUTCD as an update.

This policy will be retired when it is revised or incorporated into other documentation within Caltrans.

ATTACHMENT

V C Section 21455.5 Traffic Signal Automated Enforcement Photographic Records.



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Traffic Signal Automated Enforcement: Photographic Records

21455.5. (a) The limit line, the intersection, or a place designated in Section 21455, where a driver is required to stop, may be equipped with an automated traffic enforcement system if the governmental agency utilizing the system meets all of the following requirements:

(1) Identifies the system by signs posted within 200 feet of an intersection where a system is operating that clearly indicate the system's presence and are visible to traffic approaching from all directions in which the automated traffic enforcement system is being utilized to issue citations. A governmental agency utilizing such a system does not need to post signs visible to traffic approaching the intersection from directions not subject to the automated traffic enforcement system. Automated traffic enforcement systems installed as of January 1, 2013, shall be identified no later than January 1, 2014.

(2) Locates the system at an intersection and ensures that the system meets the criteria specified in Section 21455.7.

(b) Prior to issuing citations under this section, a local jurisdiction utilizing an automated traffic enforcement system shall commence a program to issue only warning notices for 30 days. The local jurisdiction shall also make a public announcement of the automated traffic enforcement system at least 30 days prior to the commencement of the enforcement program.

(c) Only a governmental agency, in cooperation with a law enforcement agency, may operate an automated traffic enforcement system. A governmental agency that operates an automated traffic enforcement system shall do all of the following:

(1) Develop uniform guidelines for screening and issuing violations and for the processing and storage of confidential information, and establish procedures to ensure compliance with those guidelines. For systems installed as of January 1, 2013, a governmental agency that operates an automated traffic enforcement system shall establish those guidelines by January 1, 2014.

(2) Perform administrative functions and day-to-day functions, including, but not limited to, all of the following:

(A) Establishing guidelines for the selection of a location. Prior to installing an automated traffic enforcement system after January 1, 2013, the governmental agency shall make and adopt a finding of fact establishing that the system is needed at a specific location for reasons related to safety.

(B) Ensuring that the equipment is regularly inspected.

(C) Certifying that the equipment is properly installed and calibrated, and is operating properly.

(D) Regularly inspecting and maintaining warning signs placed under paragraph (1) of subdivision (a).

(E) Overseeing the establishment or change of signal phases and the timing thereof.

(F) Maintaining controls necessary to ensure that only those citations that have been reviewed and approved by law enforcement are delivered to violators.

(d) The activities listed in subdivision (c) that relate to the operation of the system may be contracted out by the governmental agency, if it maintains overall control and supervision of the system. However, the activities listed in paragraph (1) of, and subparagraphs (A), (D), (E), and (F) of paragraph (2) of, subdivision (c) shall not be contracted out to the manufacturer or supplier of the automated traffic enforcement system.

(e) The printed representation of computergenerated information, video, or photographic images stored by an automated traffic enforcement system does not constitute an out-of-court hearsay statement by a declarant under Division 10 (commencing with Section 1200) of the Evidence Code.

(f) (1) Notwithstanding Section 6253 of the Government Code, or any other law, photographic records made by an automated traffic enforcement system shall be confidential, and shall be made available only to governmental agencies and law enforcement agencies and only for the purposes of this article.

(2) Confidential information obtained from the Department of Motor Vehicles for the administration or enforcement of this article shall be held confidential, and shall not be used for any other purpose.

(3) Except for court records described in Section 68152 of the Government Code, the confidential records and information described in paragraphs (1) and (2) may be retained for up to six months from the date the information was first obtained, or until final disposition of the citation, whichever date is later, after which time the information shall be destroyed in a manner that will preserve the confidentiality of any person included in the record or information.

(g) Notwithstanding subdivision (f), the registered owner or any individual identified by the registered owner as the driver of the vehicle at the time of the alleged violation shall be permitted to review the photographic evidence of the alleged violation.

(h) (1) A contract between a governmental agency and a manufacturer or supplier of automated traffic enforcement equipment shall not include provision for the payment or compensation to the manufacturer or supplier based on the number of citations generated, or as a percentage of the revenue generated, as a result of the use of the equipment authorized under this section.

(2) Paragraph (1) does not apply to a contract that was entered into by a governmental agency and a manufacturer or supplier of automated traffic enforcement equipment before January 1, 2004, unless that contract is renewed, extended, or amended on or after January 1, 2004.

(3) A governmental agency that proposes to install or operate an automated traffic enforcement system shall not consider revenue generation, beyond recovering its actual costs of operating the system, as a factor when considering whether or not to install or operate a system within its local jurisdiction.

(i) A manufacturer or supplier that operates an automated traffic enforcement system pursuant to this section shall, in cooperation with the governmental agency, submit an annual report to the Judicial Council that includes, but is not limited to, all of the following information if this information is in the possession of, or readily available to, the manufacturer or supplier:

(1) The number of alleged violations captured by the systems they operate.

(2) The number of citations issued by a law enforcement agency based on information collected from the automated traffic enforcement system.

(3) For citations identified in paragraph (2), the number of violations that involved traveling straight through the intersection, turning right, and turning left.

(4) The number and percentage of citations that are dismissed by the court.

(5) The number of traffic collisions at each intersection that occurred prior to, and after the installation of, the automated traffic enforcement system.

(j) If a governmental agency utilizing an automated traffic enforcement system has posted signs on or before January 1, 2013, that met the requirements of paragraph (1) of subdivision (a) of this section, as it read on January 1, 2012, the governmental agency shall not remove those signs until signs are posted that meet the requirements specified in this section, as it reads on January 1, 2013.

Amended Sec. 1, Ch. 511, Stats. 2003. Effective January 1, 2004.

Amended Sec. 230, Ch.328, Stats. 2010. Effective January 1, 2011.

Amended Sec. 3, Ch. 735, Stats. 2012. Effective January 1, 2013.