

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: PCB HWSS 15-05 Traffic Control
SPONSOR(S): Highway & Waterway Safety Subcommittee
TIED BILLS: **IDEN./SIM. BILLS:**

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
Orig. Comm.: Highway & Waterway Safety Subcommittee		Willson	Smith

SUMMARY ANALYSIS

The bill amends and creates certain requirements for the regulation and use of red light cameras. Specifically, the bill:

- prohibits issuance of a notice of violation and a traffic citation if the driver is making a right-hand turn;
- requires that red light camera notices of violation be sent via certified mail, rather than first-class mail;
- specifies that the portion of the red light camera fine retained by the local government must be used for a public safety purpose, which includes operation of a red light camera program;
- requires local governments to include a summary of any private vendor contract for operation and administration of red light camera programs, and any other information as required, in the annual report submitted to DHSMV;
- provides a penalty for local governments that do not comply with reporting requirements;
- requires the Department of Transportation (FDOT) to submit an annual report that summarizes the crash statistics for intersections with a red light camera;
- allows FDOT to inspect traffic control signals at intersections with a red light camera for compliance verification purposes;

The bill has indeterminate fiscal impact on both state and local government revenues and expenditures. See the Fiscal Analysis & economic Impact statement of this analysis for specific details.

The bill has an effective date of July 1, 2015.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Current Situation

Red Light Cameras Generally

Traffic infraction detectors,¹ more commonly known as “red light cameras,” are used to document traffic law violations by automatically photographing vehicles whose drivers have failed to yield a red light. The cameras are connected to the traffic signal and to sensors that monitor traffic flow at the crosswalk or stop line. The system photographs vehicles that enter the intersection above a pre-set minimum speed after the signal has turned red; a second photograph typically shows the driver in the intersection. In some cases, video cameras are used. Red light cameras also record the license plate number, date and time of day, time elapsed since the beginning of the red signal, and the vehicle’s speed.

Red light cameras in Florida

In 2010, the Florida Legislature enacted ch. 2010-80, L.O.F.² The law expressly preempted to the state regulation of the use of cameras for enforcing the provisions of Ch. 316, F.S.³ The law also authorized the Department of Highway Safety and Motor Vehicles (DHSMV), counties, and municipalities to employ red light camera programs.⁴

Jurisdiction, Installation, and Awareness

Every red light camera must meet requirements established by FDOT and must be tested at regular intervals according to procedures prescribed by FDOT.⁵ If DHSMV, a county, or a municipality installs a red light camera at an intersection, the respective governmental entity must notify the public that a camera is in use at that intersection, including specific notification of enforcement of right-on-red violations.⁶ Such signage must meet specifications adopted by FDOT pursuant to s. 316.0745, F.S.⁷

Traffic Control Devices

Section 316.0745(1), F.S., requires FDOT to adopt a uniform system of traffic control devices for use on the streets and highways of the state.⁸ Section 316.075(3)(a), F.S., states that no traffic control signal device shall be used which does not exhibit a yellow or "caution" light between the green or "go" signal and the red or "stop" signal, but it does not specify the length of time that the yellow or red light must be exhibited.

Yellow Light Display Duration

¹ Section 316.003(87), F.S., defines “traffic infraction detector” as “[a] vehicle sensor installed to work in conjunction with a traffic control signal and a camera or cameras synchronized to automatically record two or more sequenced photographic or electronic images or streaming video of only the rear of a motor vehicle at the time the vehicle fails to stop behind the stop bar or clearly marked stop line when facing a traffic control signal steady red light. Any notification under s. 316.0083(1)(b) or traffic citation issued by the use of a traffic infraction detector must include a photograph or other recorded image showing both the license tag of the offending vehicle and the traffic control device being violated.”

² House Bill 325 (2010).

³ Section 316.0076, F.S.

⁴ Section 316.0083, F.S.

⁵ Section 316.0776, F.S.

⁶ Section 316.0776(2), F.S.

⁷ *Id.*

⁸ Section 316.0745(1), F.S.

The purpose of the yellow light display is “to provide a safe transition between two conflicting traffic signal phases.”⁹ More specifically, the function of the yellow light display is “to warn traffic of an impending change in the right-of-way assignment.”¹⁰

The Federal Manual on uniform Traffic Control Devices (MUTCD) states that a yellow change interval should have a minimum duration of 3 seconds and a maximum duration of 6 seconds.¹¹ With regard to specific guidance for the length of a yellow signal, the MUTCD specifies that the length shall be determined using engineering practices.¹² These engineering practices are contained in FDOT’s Traffic Engineering Manual (TEM).

A study published in 2004 that examined before-and-after effects of increasing the yellow light change interval on red light running found that increasing yellow light duration by 0.5 seconds to 1.5 seconds decreased red light violations by at least 50%.¹³ Similarly, a 2007 report by the Insurance Institute for Highway Safety found that in the city studied, yellow light timing changes reduced red light violations by 36%.⁹¹⁴ Most recently, a 2012 National Cooperative Highway Research Program report noted that the “best estimate” of the effect of increasing yellow light change intervals, “based on better designed studies,” is about a 36% to 50% reduction in red light running.¹⁵

The Institute of Transportation Engineers has a formula that calculates the yellow light interval as a function of driver perception/reaction time, speed of approaching vehicles, deceleration rate, acceleration due to gravity, and grade of road. For years, traffic engineers used 1.0 second for the perception/reaction time in the calculation of the formula. However, recent research indicates that using a value greater than 1.0 second would encompass the reaction times of a larger proportion of the driver population. Based on these research results, FDOT recently revised requirements for yellow light timing across all of the state’s jurisdictions. FDOT increased the perception/reaction time to 1.4 seconds, effectively increasing the department’s previous minimum yellow light change interval by 0.4 seconds.

ITE’s formula for yellow light intervals, and a table describing the minimum yellow intervals for a range of approach speeds for a 0% grade intersection, are depicted below.¹⁶

⁹ Florida Department of Transportation *Traffic Engineering Manual*, section 3.6.1, “Purpose.” This information can be viewed at <http://www.dot.state.fl.us/trafficoperations/Operations/Studies/TEM/TEM.shtm> (Last viewed February 09, 2015).

¹⁰ *Id.*

¹¹ *Id.*

¹² FHWA *Manual on Uniform Traffic Control Devices* S.4D.26(3). This section of the manual can be found here: <http://mutcd.fhwa.dot.gov/hdm/2009/part4/part4d.htm> (Last viewed February 09, 2015).

¹³ Bonneson, J.A. and K.H. Zimmerman. “Effect of Yellow-Interval Timing On Red-Light-Violation Frequency at Urban Intersections.” In: Proceedings of the Transportation Research Board 83rd Annual Meeting, Washington, D.C., 2004.

¹⁴ Retting, R.A., S.A. Ferguson, and C.M. Farmer. “Reducing Red Light Running Through Longer Yellow Signal Timing and Red Light Camera Enforcement: Results of a Field Investigation.” Insurance Institute for Highway Safety, January 2007.

¹⁵ McGee, H., K. Moriarty, K. Eccles, M. Liu, T. Gates, and R. Retting. “Guidelines for Timing Yellow and All-Red Intervals at Signalized Intersections.” National Cooperative Highway Research Program, Report 731, 2012.

¹⁶ “Table 3.6-1.” is reproduced directly from section 3.6.2.1 of the TEM and can be seen in context at the following address: <http://www.dot.state.fl.us/trafficoperations/Operations/Studies/TEM/TEM.shtm> (Last viewed February 09, 2015).

Table 3.6-1. Florida Yellow Change Interval (0.0 % Grade) Standards¹⁷

APPROACH SPEED (MPH)	YELLOW INTERVAL (SECONDS)
25	3.4
30	3.7
35	4.0
40	4.4
45	4.8
50	5.1
55	5.5
60	5.9
65	6.0

* For approach grades other than 0%, use ITE Formula.

Formula 3.6-1

$$Y = t + \frac{1.47v}{2(a + Gg)}$$

Where:

Y = length of yellow interval, sec.

t = perception-reaction time (use 1.4 sec.)

v = speed of approaching vehicles, in mph.

a = deceleration rate in response to the onset of a yellow indication (use 10 ft/sec²)

g = acceleration due to gravity (use 32.2 ft/sec²)

G = grade, with uphill positive and downhill negative (percent grade /100)

Yellow change intervals shall not be lower than the values shown in Table 3.6-1 of the TEM for a given posted speed limit (PSL), even if the ITE formula produces a lower value.¹⁷ Yellow change intervals calculated to be lower than 3.4 seconds shall be set at no less than 3.4 seconds.¹⁸

This 0.4 second increase will allow additional time for Florida drivers to perceive the traffic signal change from green to yellow. Intersections with existing red light cameras were required to comply with the new standards by December 31, 2013.

Intersections with existing red light cameras were required to comply with these new standards by December 31, 2013.¹⁹ All other existing signalized intersections are required to comply with these new standards by June 30, 2015.²⁰

Inspection of Traffic Control Signal Devices

FDOT officials reported that the department enters into traffic signal maintenance agreements with counties and municipalities, and these agreements are the mechanism for ensuring that jurisdictions comply with yellow light timing and other traffic signal standards.²¹ In addition, FDOT staff conducts field tests and quality assurance reviews that encompass a number of issues, including yellow light

¹⁷ Section 3.6.2 of the TEM.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ "Florida Red Light Camera Programs" OPPAGA research memorandum, (January 31, 2014)

interval timing. According to an OPPAGA survey conducted in 2014²², of the counties and municipalities that operate red light camera programs, most (58%) jurisdictions reported using DOT standards for yellow light interval timing, while some (43%) jurisdictions reported not having the authority to change yellow light interval timing, as it is often managed at the county level for many cities and towns.²³

Notifications and Citations

If a red light camera captures an image of a driver running a red light, the visual information is reviewed by a traffic infraction enforcement officer. A notification of violation must be issued to the registered owner of the vehicle within 30 days of the alleged violation.²⁴ The notification must be sent by first-class mail, and must include a statement that informs the owner of the right to review the photographic or video evidence upon which the violation is based, as well as the time and place or Internet location where the evidence may be reviewed.²⁵ Violations may not be issued if the driver is making a right-hand turn in a "careful and prudent manner",²⁶ or if the driver comes to a complete stop before making a permissible right turn.²⁷

A person who has been issued a notice of violation for a red light camera violation is authorized to elect to receive a hearing within 60 days following the date of the notice of violation. No payment or fee may be required in order to receive the hearing. Further, if a person elects to receive a hearing, the person waives his or her right to challenge delivery of the notice of violation.²⁸ If the notice of violation is upheld, the local hearing officer must require the petitioner to pay the \$158 penalty and may also require the petitioner to pay county or municipal costs, not to exceed \$250.²⁹

If the registered owner of the vehicle does not pay the violation within 60 days following the date of notification, the traffic infraction enforcement officer must issue a uniform traffic citation (UTC) to the owner.³⁰ The UTC must be mailed by certified mail.³¹ Like the notice of violation, the UTC must also include the photograph and statements described above regarding review of the photographic or video evidence.³² The report of an officer and images provided by a traffic infraction detector are admissible in court and provide a rebuttable presumption the vehicle was used to commit the violation.³³

A traffic infraction enforcement officer must provide by electronic transmission a replica of the citation data when issued under s. 316.0083, F.S., to the court having jurisdiction over the alleged offense or its traffic violations bureau within five days after the issuance date of a UTC to the violator.³⁴

Penalties

Red light camera citations carry a \$158 penalty. When the \$158 penalty is the result of local government enforcement, \$75 is retained by the local government and \$83 is deposited with the Florida Department of Revenue (DOR).³⁵ DOR subsequently distributes the penalty by depositing \$70 in the General Revenue Fund, \$10 in the Department of Health (DOH) Administrative Trust Fund, and \$3 in the Brain and Spinal Cord Injury Trust Fund.³⁶

²² *Id.*

²³ These percentages are not additive because some jurisdictions reported both, i.e., that yellow light timing is not under their jurisdiction and that DOT standards are being followed.

²⁴ Section 316.0083(1)(b), F.S.

²⁵ *Id.*

²⁶ Section 316.0083(2), F.S.

²⁷ Section 316.0083(1)(a), F.S.

²⁸ *Id.*

²⁹ Sections 316.0083(5)(e), and 318.18(22), F.S.

³⁰ Section 316.0083(1)(c), F.S.

³¹ *Id.*

³² *Id.*

³³ Section 316.0083(1)(e), F.S.

³⁴ Section 316.650(3)(c), F.S.

³⁵ Sections 318.18(15), and 316.0083(1)(b)3., F.S.

³⁶ *Id.*

When the \$158 penalty is the result of enforcement by DHSMV, \$45 is retained by the local government and \$113 is deposited with the Department of Revenue (DOR).³⁷ DOR subsequently distributes the penalty by depositing \$100 in the General Revenue Fund, \$10 in the DOH Administrative Trust Fund, and \$3 in the Brain and Spinal Cord Injury Trust Fund.³⁸ DHSMV does not currently operate any red light cameras.

If a law enforcement officer cites a motorist for the same offense, the penalty is still \$158, but the revenue is distributed from the local clerk of court to DOR, where \$30 is distributed to the General Revenue Fund, \$65 is distributed to the Department of Health Administrative Trust Fund, and \$3 is distributed to the Brain and Spinal Cord Injury Trust Fund. The remaining \$60 is distributed in small percentages to a number of funds pursuant to s. 318.21, F.S.³⁹

Red light camera citations may not result in points assessed against the driver's driver license and may not be used for the purpose of setting motor vehicle insurance rates.⁴⁰

Proceeds retained by local government

As stated above, each time a \$158 red light violation penalty is collected the local government retains \$75 and remits \$83 to the state. In a survey of local governments that operate a red light camera program, the Office of Policy Analysis & Governmental Accountability (OPPAGA)⁴¹ reported that, over a three- year period:

- 49% of total money collected went to red light camera vendors.
- 78% of respondents reported excess revenue after payments to vendors and other program expenses. Excess revenue was allocated to:
 - general fund (76%)
 - public safety/police (14%)
 - road repair/maintenance (5%)
- 16% of respondents had difficulty generating sufficient revenue to make vendor payments and have accrued outstanding balances

Local governments must procure for the services of a red light camera vendor. The contract term generally ranges from three to five years.⁴² Local governments typically pay between \$4,250 and \$4,750 per camera, per month.⁴³

DHSMV – 2014 Red Light Camera Program Analysis

Florida law requires each county or municipality operating a red light camera program to annually self-report data to DHSMV containing:

- Red light camera program results over the preceding fiscal year;
- The procedures for enforcement; and
- Other statistical data and information required by DHSMV.⁴⁴

³⁷ *Id.*

³⁸ *Id.*

³⁹ Section 318.18(15), F.S.

⁴⁰ Section 322.27(3)(d)6., F.S.

⁴¹ "Florida Red Light Camera Programs." *OPPAGA Research Memorandum* (January 31, 2014)

⁴² *Id.*

⁴³ *Id.*

⁴⁴ Section 316.0083(4), F.S. DHSMV uses an on-line questionnaire to facilitate data collection.

Based on this data covering the period between July 1, 2013 and June 30, 2014 (survey period), DHSMV submitted a summary report to the Governor and Legislature containing the following findings:

- 68 agencies, operating red light cameras at a total of 648 intersections, completed the online survey in accordance with the reporting requirements set forth by 316.0083(4)(a).
- During the survey period, the agencies issued a total of 940,814 Notices of Violation.⁴⁵
- Of the Notices of Violation issued, 647,991 were paid on time (68 percent).
- A Uniform Traffic Citation was issued after no response was received for 28 percent of the Notices of Violation.
- The number of Notices of Violation challenged was 37,236. Of those violations challenged, 19,066 were dismissed (51 percent), and 12,190 (33 percent) were upheld, and 5,980 (16 percent) were pending.
- In calendar year 2013, 295,075 Uniform Traffic Citations (UTC) were issued to owners who failed to pay the red light camera fine or contest the Notice of Violation within 60 days.⁴⁶
- When selecting intersections for red light camera installation, respondents indicated that the top contributing factors were traffic crash data, law enforcement officer observations, and traffic citation data. Other responses included engineering and infrastructure, pedestrian and bike safety, and statistics related to crashes, injuries, and fatalities.
- When determining whether a camera should be moved or removed, agencies most commonly looked at violation and crash-related metrics.
- Of the 68 survey respondents, 94 percent reported that they use their red light cameras to investigate other crimes. Examples of other crimes include robbery, burglary, DUI, hit-and-run crashes, police pursuits, homicide, shooting vehicles, general public investigations, auto theft, retail theft, bank robberies, missing persons and domestic violence. According to DHSMV, Florida law does not address the use of red light camera images for other purposes, nor are red light camera images specifically addressed in public record laws.⁴⁷
- Twelve respondents indicated that their jurisdiction has considered repealing their red-light camera ordinance. Only one off the twelve actually terminated their program during the reporting period.
- Of the survey respondents, 36 indicated that they had taken some form of action as a result of their program, such as infrastructure improvement or a public education and awareness campaign.

While there is a requirement that agencies self-report the details of the results of using red light cameras to DHSMV, there is no clear statutory requirement that this data include crash statistics.

Crash statistics

Local governments operating red light camera programs do not compile and report crash statistics in a uniform manner.⁴⁸

The following table summarizes six years of crash data at 243 red light camera locations on the State Highway System.⁴⁹ In the table, the 36 month period immediately before a camera was turned on is compared to the 36 months immediately after the camera was activated.

⁴⁵ According to DHSMV, law enforcement officers issued 62,328 citations for failure to yield at red light in calendar year 2013.

⁴⁶ While the reporting period for the DHMSV report was from July 1, 2013 through June 30, 2014, information regarding the number of UTCs issued was reported for calendar year 2013.

⁴⁷ See the Department of Highway Safety and Motor Vehicles' "Red Light Camera Program Analysis" on its website at <http://www.flhsmv.gov/html/safety.html> (Last visited February 9, 2015).

⁴⁸ "Florida Red Light Camera Programs." *OPPAGA Research Memorandum* (January 31, 2014)

⁴⁹ Provided in an email from FDOT on February 13, 2015. On file with Highway and Waterway Safety Subcommittee.

Crash Totals: 3 Years Before - 3 Years After											
243 Locations on the State Highway System (with Turn-On Dates before 07/31/2011)											
Crash Type ->	Crashes	Fatalities	Injuries	Rear-end Collisions	Angle Collisions	Sideswipe Collisions	Left-turn Collisions	Head-on Collisions	Other Collisions	Failure-to-yield	Disregarded Traffic Control
Before	12,284	48	6,583	4,946	2,008	1,274	0	454	3,602	1,324	643
After	14,129	34	6,520	6,979	2,560	157	0	358	4,075	1,417	534
After-Before Difference	1,845	-14	-63	2,033	552	-1,117	0	-96	473	93	-109

Litigation

In October 2014, the Florida Fourth District Court of Appeal dismissed a red light camera citation after finding that the local government had delegated an impermissible measure of discretion and control over their red light camera program to a private third-party vendor.⁵⁰ Under the terms of the contract, the vendor decided which infractions would be reviewed by the City, obtained the information needed to fill out a citation, completed the citation, issued the citation, and transmitted the citation information to the court.⁵¹ In Florida, only traffic infraction enforcement officers and sworn law enforcement officers are authorized to issue a traffic citation.⁵²

The *Arem* decision may have an effect on the administration of red light camera programs throughout the state. A number of jurisdictions have voted to suspend or terminate their red light camera programs since the decision was handed down.

Effect of Proposed Changes

Section One

Right-hand turns

The bill prohibits issuance of a notice of violation and a traffic citation if the driver is making a right-hand turn.

Notice

The bill requires that the notice of violation be sent via certified⁵³ mail, rather than first-class mail.

Fines

The bill specifies that, when a penalty is assessed and collected by a county or municipality for violation of s. 316.0083, F.S., the portion of the penalty proceeds retained by the county or municipality must be used to promote public safety. The bill further specifies that the Mark Wandall Traffic Safety Program is considered a public safety initiative.

Reporting requirement - Local government

The bill provides that, when a county or municipality has entered into a contractual agreement with a private vendor for performance of red light camera services, a summary of the contract's material terms must be included in the annual report that is submitted to DHSMV as required in s. 316.0083(4)(a), F.S. (the section of law that requires each county or municipality operating a traffic infraction detector program to submit a detailed annual report to DHSMV) The bill further provides that a county or municipality that does not meet the reporting requirements must suspend operation of its red light camera program. While suspended, a county or municipality may not issue a notice of violation, and no penalty shall be assessed or collected for a violation that occurs during a suspension period.

⁵⁰ *City of Hollywood v. Arem*, 39 Fla. L. Weekly D2175 (Fla. 4th DCA October 15, 2014)

⁵¹ *Id.*

⁵² Sections 316.0083(1)(b)3., and 316.650(3)(c), F.S.

⁵³ "Certified Mail provides proof of mailing at time of mailing and the date and time of delivery or attempted delivery, and costs \$3.30." *USPS: A Customer's Guide to Mailing*, Domestic Mail Manual 9Sept. 2014) available at

<https://www.usps.com/ship/insurance-extra-services.htm> (Last visited February 7, 2015)

Reporting requirement - FDOT

The bill requires FDOT to submit a report summarizing the certified crash data for each intersection with a red light camera in Florida. The report must be submitted to the Governor, the President of the Senate, and the Speaker of the House on an annual basis, beginning July 1, 2016.

Section Two

Inspection of traffic control signal devices

The bill provides FDOT with the discretion to inspect any traffic control signal device located at an intersection with a red light camera. This would allow FDOT to verify that the county or municipality is in fact operating a traffic control signal device as agreed to in their red light camera permit and other agreements/MOUs with FDOT.

Effective Date

The bill has an effective date of July 1, 2015.

B. SECTION DIRECTORY:

Section 1: revises provisions that prohibit issuing a notice of violation and citation for failure to stop when making a right-hand turn; requires the notice of violation be sent via certified mail; specifies that funds retained by the county or municipality must be used for public safety initiatives; requires county or municipality to include summary of contract with private vendor, if any, in annual report; requires dismissal of citations issued by noncompliant reporting entity; revises information that Department of Transportation must submit in annual report.

Section 2: allows Department of Transportation to audit traffic control signal devices at random.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

Indeterminate. The number of citations that may be dismissed pursuant to provisions of the bill is unknown. Additionally, the number of citations that would not be written due to a suspension for failure to meet reporting requirements is unknown.

2. Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

Indeterminate. The number of citations that may be dismissed pursuant to provisions of the bill is unknown. Additionally, the number of citations that would not be written due to a suspension for failure to meet reporting requirements is unknown. The bill would not limit the amount of revenue that may be collected, but it would limit how the revenue may be spent.

2. Expenditures:

Indeterminate. The difference in cost for a local government to mail a notice of violation via certified mail instead of first-class mail is unknown. The effect of an additional reporting requirement is also unknown.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None

D. FISCAL COMMENTS:

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

2. Other:

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES