



November 3, 2023

The Honorable Brendan P. Crighton, Senate Chair
The Honorable William M. Straus, House Chair
Joint Committee on Transportation
General Court of the Commonwealth of Massachusetts
24 Beacon Street
Boston, Massachusetts 02133

Dear Chair Crighton and Chair Straus:

Advocates for Highway and Auto Safety (Advocates), an alliance of consumer, safety, medical, public health and law enforcement groups and insurance companies working together to pass highway and auto safety laws that prevent crashes, save lives, reduce injuries, and contain costs, supports House Bill (H) 3393 to create a pilot program for automated enforcement (AE) in up to ten municipalities. AE is proven to curb speeding and red light running and is a vital tool to overcome the public health epidemic of traffic fatalities and injuries, and to ensure the health and safety of Massachusetts families and visitors who travel on the Commonwealth's roads.

In 2022, 433 people were killed in traffic crashes in Massachusetts according to an estimate from the National Highway Traffic Safety Administration (NHTSA), a 29 percent increase since 2019.ⁱ In 2021, speeding was a factor in 27 percent of motor vehicle deaths.ⁱⁱ Additionally, Massachusetts incurred \$7.4 billion in economic harm due to motor vehicle crashes according to a 2019 analysis.ⁱⁱⁱ Traffic safety is a serious issue in urgent need of proven solutions.

Crash tests show that speed upticks of even five to ten miles-per-hour (mph) greatly increases the driver's risk of injury or death.^{iv} Speed increases immensely impact pedestrians and other vulnerable road users (VRUs). The average risk of death for a pedestrian is 10 percent at an impact speed of 23 mph, 25 percent at 32 mph, and 50 percent at 42 mph.^v Further, drivers who speed have been shown to exhibit additional deadly driving behaviors; more than half (51 percent) of speeding passenger vehicle drivers in fatal crashes were unbuckled, compared to 23 percent of non-speeding drivers.^{vi}

AE safety cameras are proven to deter speeding and its impact. A study by the Insurance Institute for Highway Safety (IIHS) found that speed cameras alone resulted in a 19 percent reduction in the likelihood that a crash resulted in a fatal or incapacitating injury.^{vii}

According to the Federal Highway Administration (FHWA), Americans are more likely to be injured in a red light running related event than any other crash.^{viii} In 2021, 1,109 people were killed and an estimated 127,000 were injured in red light running crashes in the United States.^{ix} In fact, 28 percent of drivers admit to running a red light in the past 30 days^x even though 76 percent of Americans believe that doing so is "very" or "extremely" dangerous.^{xi} Red light cameras are a proven tool to deter this behavior. According to the Journal of Safety Research, rates of fatal red light running crashes were 21 percent lower and all fatal crashes were 14 percent lower at signalized intersections in cities with camera programs.^{xii} Conversely, cities that took down their red light cameras experienced a 30 percent increase in deadly red light running crashes and a 16 percent increase in fatal crashes at signalized intersections overall.^{xiii} This "spillover" effect, wherein people modify their driving habits

to avoid running red lights at intersections with and without safety cameras, amplifies the benefits of such programs overall.

Law enforcement risk their lives when performing their duties on the roadways every day, and it is implausible for law enforcement officers to be everywhere and catch every violation. Properly executed AE for speeding and red light running augments traditional enforcement without requiring a traffic stop.

H 3393 has been carefully constructed to include provisions which ensure racial and social equity as well as provisions to protect privacy. It also is narrowly tailored as no more than 10 municipalities can participate in the pilot program at any given time. In short, this bill contains appropriate safeguards and is targeted in its applicability, yet will generate valuable data on the effectiveness of AE on Massachusetts roads.

Five national safety organizations, Advocates, IIHS, AAA, National Safety Council and the Governors Highway Safety Association, jointly released the Automated Enforcement Program Checklist to convey our support for the technology and assist states and localities in launching or updating AE programs to improve safety, ensure transparency and public support, include equity considerations, and generate successful AE programs. Advocates urges you to support H 3393 to employ this proven technology to curb speeding and red light running, and save lives.

Sincerely,



Catherine Chase
President

Encl: Automated Enforcement Checklist

cc: The Honorable Paul W. Mark, Senate Vice Chair
The Honorable Brian W. Murray, House Vice Chair

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- ⁱ Early Estimates: 2022 Traffic Crash Deaths, NHTSA, April 2023, DOT 813 HS 428, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813428>.
 - ⁱⁱ NHTSA State Traffic Safety Information for Massachusetts, accessible at <https://cdan.dot.gov/stsi.htm>.
 - ⁱⁱⁱ NHTSA. 2023. The Economic and Societal Impact of Motor Vehicle Crashes, 2019 (Revised), available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813403>.
 - ^{iv} Impact of Speeds on Drivers and Vehicles – Results from Crash Tests, AAA Foundation for Safety, Humanetics, and IIHS, Jan. 2021, available at <https://www.iihs.org/api/datastore/document/bibliography/2218>.
 - ^v Impact Speed and a Pedestrian’s Risk of Severe Injury or Death, AAA Foundation for Traffic Safety, Sep. 2011., available at <https://aaafoundation.org/wp-content/uploads/2018/02/2011PedestrianRiskVsSpeedReport.pdf>.
 - ^{vi} Traffic Safety Facts 2021 Data: Speeding, NHTSA, Jul. 2023, DOT HS 813 473, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813473>.
 - ^{vii} Effects of Automated Speed Enforcement in Montgomery County Maryland on Vehicle Speeds, Public Opinion and Crashes, IIHS, August; available at <https://www.iihs.org/topics/bibliography/ref/2097>.
 - ^{viii} “If You Run a Red Light You are Betting More than You Can Lose,” Federal Highway Administration, available at <https://safety.fhwa.dot.gov/intersection/signal/fhwasal1016.pdf>.
 - ^{ix} Red Light Running, IIHS, available at <https://www.iihs.org/topics/red-light-running#overview>.
 - ^x 2021 Traffic Safety Culture Index, AAA Foundation for Traffic Safety, December 2022, available at <https://aaafoundation.org/wp-content/uploads/2022/11/2021-TSCI-Full-Report.pdf>.
 - ^{xi} id.
 - ^{xii} Effects of turning on and off red light cameras on fatal crashes in large U.S. cities, Journal of Safety Research, June 2017, available at <https://www.iihs.org/topics/bibliography/ref/2121>.
 - ^{xiii} Ibid.



AUTOMATED ENFORCEMENT PROGRAM CHECKLIST

For red light cameras and automated speed enforcement

Automated enforcement is an effective tool to make roads safer. Research shows that red light cameras reduce violations and injury crashes, especially the violent front-into-side crashes most associated with red light running. Speed cameras have been shown to reduce vehicle speeds, crashes, injuries and fatalities. Both types of programs should be designed, implemented and administered properly. Poorly run programs are less likely to be durable and may undermine support for automated enforcement generally.

Speed and red light camera programs augment traditional enforcement to improve traffic safety by deterring dangerous driving behaviors. Automated enforcement does not require traffic stops, and well-designed programs can improve safety for all road users in a neutral manner.

Successful programs are transparent and have a strong public information component. Communities should take into account racial and economic equity when making decisions about camera placement and fines. Automated enforcement programs should be data-driven and should prioritize safety, not revenue. In fact, communities should expect that revenue will decline over time as fewer drivers run red lights or violate speed limits.

This checklist assumes your community is already legally authorized to set up a program. It provides a minimum list of considerations to help you follow best practices. The goal is to operate a successful program that reduces crashes and prevents deaths and injuries while maintaining strong public support. Automated enforcement can be integrated into broader efforts to discourage unsafe driving that includes optimizing speed limits for safety and improving roadway design.



ADVOCATES FOR HIGHWAY & AUTO SAFETY



✓ FIRST STEPS

- Identify problem intersections and roadways.
 - Assess violation and crash data.
 - Conduct field observations.
 - Collect resident and roadway user input.
- Consider what role automated enforcement should play as part of a comprehensive traffic safety strategy.
- Make any engineering or signage changes needed to improve drivers' compliance with the law.
 - Ensure the road geometry conforms with guidelines from the American Association of State Highway and Transportation Officials, National Association of City Transportation Officials guidance or state road design manuals, as appropriate.
 - Remove sightline obstructions of signals and signage.

For red light cameras:

- Ensure that yellow light timing conforms to the Manual on Uniform Traffic Control Devices and Institute of Transportation Engineers guidelines.

For automated speed enforcement:

- Ensure the speed limit is appropriate and accounts for all road users. Follow guidance and use tools from the Federal Highway Administration, Institute of Transportation Engineers, and the National Association of City Transportation Officials.
 - Ensure the speed limit is appropriate for special conditions, such as work zones and school zones.
 - Assess whether engineering changes could be made to promote compliance with the speed limit.
 - Ensure adequate posting of speed limits.
- Establish an advisory committee comprised of stakeholders.
 - Consider including law enforcement, transportation department employees, victim advocates, equity and civil rights advocates, school officials, community residents, first responders, health officials and the courts.
 - Outline the committee's role. This may include developing guiding principles related to safety, equity, and transparency, as well as other aspects of the program.
 - Ensure committee meetings are open to the public and deliberations are transparent.
 - Meet with the media, including newspaper editorial boards, to build support and educate the public.





SECOND STEPS

- Make program design decisions, consulting with the advisory committee as appropriate.

Program design considerations

Target violations with the greatest safety consequences. For example, you might decide not to ticket for right-turn-on-red violations when pedestrians, bicyclists, and oncoming vehicles are not present or to limit violations in work zones to when workers are present, provided the road configuration has not also been altered for construction.

Establish a reasonable fine structure. Create options for indigent violators such as payment plans or other alternatives.

Establish a threshold that must be crossed before a vehicle is photographed for a violation of red light running or speeding (i.e., a period after a light turns red or a certain mph over the posted speed). The point is to target flagrant, rather than marginal, infractions.

Programs should include a process for evidence review by appropriately trained personnel to determine if a violation occurred and issue a citation if warranted.

Establish clear procedures for contesting an alleged violation. Consider options to contest online or by mail.

When possible, red light camera violations should be recorded in real time video, and videos of the offense should be made available to the vehicle owner for review via the Internet.

Fines in excess of program costs should be allocated to transportation safety programs.

- Use safety data gathered in the first steps to determine camera locations, ensuring that particular neighborhoods are neither overlooked nor overrepresented.
- Publicize the extent of the safety problem and the need for innovative solutions.
- Secure a vendor and establish payment based on the vendor's actual costs, not the number of citations.
- Publicize procedures for contesting an alleged violation.
- Create a website and social media plan to publicize program details, such as how to pay and dispute tickets. Establish a method for answering questions accurately and in a timely manner.
- Develop an emergency action plan for handling problems, such as system malfunctions.



IMPLEMENTATION

- Hold a kickoff event with advisory committee members. Introduce a well-developed and sustained public education campaign focused on improving safety by changing driver attitudes and behavior.
- Connect the program to overall roadway safety in the community and identify the goal of zero tickets resulting from changes in driver behaviors.
- Install prominent warning signs.
- Start with a probationary period during which only warnings are issued.
- Follow current guidance from the U.S. Department of Transportation for implementation and operation of automated enforcement devices.
- Allow for due process. Minimize the number of days between the violation and citation issuance.



LONG TERM

- Publicize changes, including new camera locations. Reinstate the probationary period before ticketing begins at new locations.
- Monitor program operation and publicize results. Undertake periodic reviews and ensure racial, economic and other equity issues and public concerns are addressed.
- Require regular field reviews. Verify monthly camera calibration and synchronization with signals.
- Require regular evaluations of the traffic safety benefits of the program by collecting crash and infraction data. Before-and-after comparisons must use control intersections and roadways. Include control intersections and roadways that are not subject to spillover effects.
- Regularly meet with the advisory committee and media to review program status and sustain public support.
- Continue to improve programs based on new and updated guidance and best practices and look for opportunities to expand automated enforcement use.
- Consider other changes, including roadway design improvements, in order to reduce opportunities for unsafe driving.