



**Tennessee Society of
Professional Engineers**

ACEC

AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Tennessee

Traffic Signal Timing for Automated Enforcement Systems

TSPE and ACEC of Tennessee **oppose** any effort to modify the timing on traffic signals unless it is based on sound and accepted engineering practice.

Not every intersection is the same. The length of all traffic signal timings should be based first on motorist and pedestrian safety.

Decades of traffic signal timing experience across this country, supported by scientific research, has found that yellow and red light timing needs to be determined based on sound and accepted engineering practice in order to achieve the optimum safety results. Research has determined this to be particularly important at intersections with automated enforcement systems. The determination of the length of the yellow and all-red lights should be made after an engineering study that considers:

- traffic volumes
- vehicle approach speeds
- crossing width
- road grades
- pavement conditions, and
- sight distance

The Manual on Uniform Traffic Control Devices, as adopted by the Tennessee Department of Transportation, recommends that a yellow light should have a length of approximately 3 to 6 seconds, based on an engineering study. The inappropriate use of yellow and all-red timing at selected signalized intersections can be expected to increase congestion and actually increase the number and severity of accidents. The Federal Highway Administration has documented through research that inappropriately long yellow and all-red timing encourages drivers to use the yellow and all-red lights as part of the green light.

Modifying traffic signal timing absent an engineering study could have the unintended consequence of harming the public, rather than protecting public safety.

At the Transportation Study Committee's last meeting, reference was made to legislation passed in Georgia increasing the yellow-light timing at intersections with automated enforcement cameras by one (1) second. We learned that the Georgia legislation:

- gives the GaDOT the sole authority to issue permits for these devices,
- requires a study to prove the need for the device and subsequent studies to show the continued need for the device on a regular basis
- gives the GaDOT the authority to set what would be the "standard" yellow time before it is increased by a second.
- imposes penalties for misuse of the devices.

These requirements provide opportunities for the GaDOT to influence the installation and timing of the devices in accordance with their legislation.

ACEC of Tennessee and TSPE encourage utilization of the Manual on Uniform Traffic Control Devices, as established by the Tennessee Department of Transportation, to determine the yellow interval timing of all traffic signals. To arbitrarily increase the yellow timing due to the presence of enforcement cameras will increase the incidence of red light running and the severity of crashes at these intersections.