City of Muscatine
Automated Traffic Enforcement
Report

The following report has been created in response to a public records request of the Iowa Department of Transportation Primary Highway System ATE guidelines, for the 2015 calendar year.

Background

In 2010, the City of Muscatine awarded the contract for our Automated Traffic Enforcement (ATE) initiative to Gatso USA. Through accident data as well as speed and red light violation surveys we decided that eight (8) approaches at five intersections would receive the equipment. The system was set up to monitor red light violations as well as speed violations at all five (5) intersections. The intersections selected for the ATE equipment were:

Washington St at Park Ave (north and south approaches)
Cleveland St at Park Ave (north and south approaches)
Cedar St at Houser St (east and west approaches)
University Dr at US Hwy 61 (westbound approach)
Mulberry Ave at US Hwy 61 (westbound approach)

The ATE equipment was built and installed by Gatso USA at no cost to the City of Muscatine. The City and Gatso USA submitted engineered construction plans and worked closely with the Iowa Department of Transportation to ensure that the entire construction and sign placements were completed to their requirements. Winter weather delayed the construction process during December and January. Each intersection has speed limit signs and red light signs that clearly advise that photo enforcement equipment is used at those intersections. In addition to those signs, the City elected to put up “traffic laws photo enforced” signs on every corporate limit signs posts on roadways entering Muscatine.

The City developed with Gatso Business Rules. These rules set in writing how all different kinds of violation events should be handled by Gatso. Some examples were: what if an emergency vehicle commits a violation without their flashing lights turned on, and what if a city vehicle commits a violation. The camera/radar system detects violators and passes the violation information to a Gatso employee who applies the Business Rules and verifies that a violation appears to have occurred and then they create a violation package that includes location information, violation information and vehicle information. This event package is

then sent to our department for review. A police officer who attended an organized training class on the system reviews the data and determines if a violation of the city ordinance has actually occurred and if the violation, location and vehicle information matches what is viewed in the photos and video. If everything matches up and a violation has actually occurred then the officer will issue a citation. The officers approval is transmitted back to Gatso who then prints and mails the paper violation.

The ATE equipment not only detects and documents red light and speed violations but also has other capabilities. The system can be set for license plate recognition for Amber Alerts or other major crimes that occur close to these intersections. The video that the system archives has been used multiple times as evidence in court for citation issued due to traffic crashes in the area of the ATE equipment. The system also provides a live video view. This feature allows a city authorized person to look through the camera at the intersection whenever they may need to.

The paper citation the citizen received at their home contains color images of the violation and their license plate. Also contained are easy to read instructions explaining why they received the citations and how to pay it or request an administrative review. The paper citation also contains information on a website where the citizen can view the still photos printed on the paper citations and also a video of the violation. There is also information about paying the citation on-line or requesting an administrative review.

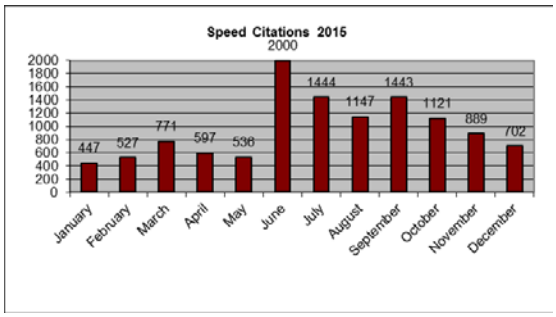
Prior to the implementation of the ATE equipment, public hearings and meetings were held during City Council meetings for at least a year prior to implementation, posters were put up at many locations across the city, informational pamphlets were distributed to the public and information was disseminated via email and the internet.

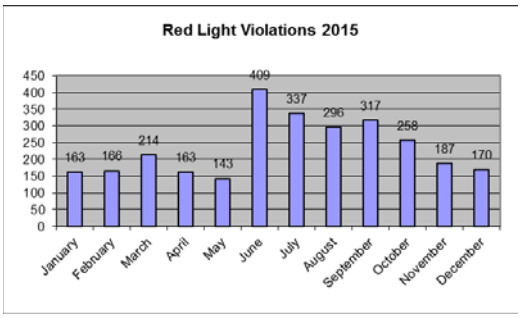
On March 11, 2011, the Automated Traffic Enforcement equipment was activated at the intersection of Cedar St and Houser St. On March 18, 2011, the Automated Traffic Enforcement equipment was activated at the intersections of US Hwy 61 and Mulberry Ave, US Hwy 61 and University Ave and Park Ave and Cleveland St. Because of property questions and construction delays, the intersection of Washington St and Park Ave wasn't active until May 21, 2011. Each intersection had a warning period of 30 days.

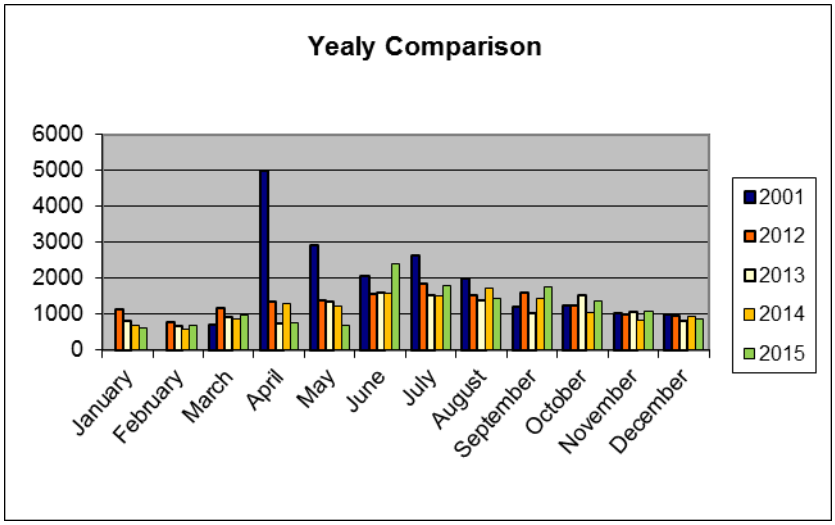
Current Citation and Crash Statistics

2015 was the fourth full calendar year with all of the intersections active and recording violations. During 2015 there were a total of 14,447 citations issued. 2823 citations were issued for red light violations and 11624 citations were issued

for speed violations. Comparing this data to the violations issued in 2014, there was a 5% (771) increase in citations issued for calendar year 2015.







There were two significant events this year in reference to the ATE program. In May of this year we had the highly publicized report from IDOT along with the rejection of our appeal by IDOT Director Trombino and also the opening of the stretch of Cedar st that had been closed for a year.

The violators of our ATE systems took to that like flies to fly paper. Almost every correspondence we received from violators and non-appearance administrative review documents we received stated either that the ATE systems as a whole were illegal or that we couldn't enforce the speed limit at that particular intersection. We quickly explained to these people that we appealed the DOT rules decision and that we could enforce the violations. This belief has slowly subsided over time.

In 2014 we saw only 266 violations at Cedar/Houser approaches. This past year we had an increase to 892 which is similar to the amount of violations we had at these two approaches in 2013. 2015 also saw increases in violations at the other approaches (6-20%) with the exception of US 61/University which saw a 5% decrease in violations.

Since 2011 we have seen a reduction in crashes each year at each intersection where ATE equipment is operating. The chart below lists crashes since 2010 at the intersections where ATE equipment is installed.

Year	Total	PI	PD
2010	34	9	25
2011	28	9	19
2012	26	6	20
2013	19	4	15
2014	25	2	23
2015	19	2	17

For calendar year 2015 we saw a reduction in the crash rate of 34% from 2014. The injury crashes remained very low with only 2 injury crashes at these intersections!

The department continues to conduct calibration compliance checks for each radar head for the through lanes where the ATE equipment is set up. These checks are conducted by department officers in patrol cars equipped with speed measuring equipment.

During the initial project planning stages the City decided to set up ATE equipment on one west bound approach each at the intersections of US Hwy 61/Mulberry Ave and US Hwy 61/University Dr. The primary reason for the University/US 61 approach was speed enforcement and accident reduction as well as speed reduction at Mulberry/US 61 approach. It is a critical safety issue to the citizens of Muscatine to slow drivers down as they enter this business district and the new business district in the area of US 61/Mulberry Ave.

US Hwy 61/University is a main corridor to the City's east end business district with plans for expanded commercial businesses. The speed leading up to University is 45 mph. During initial planning stages for this intersection we had lengthy discussions with Iowa DOT engineers regarding the appropriate speed for the business district and sign placement. The city asked that the 45 mph speed limit sign be moved as close to the city limits sign as possible to give drivers as much chance to slow from 55 mph to the 45 mph zone. The Iowa DOT established where the 45 mph speed transition was going to be placed and erected the signs. Since the Iowa DOT Director created the new rule that speed zones aren't enforceable within 1000 feet of a speed transition area we have asked at least twice that the signs be moved to at least 1000 feet before this intersection.

Speed citations at this intersection have reduced dramatically. In 2011 (8 months active period) University/US 61 approach issued 12,851 speed violations. In 2012 that number dropped to 8,992 violations and now in 2015 the number of violations

has dropped again this year to 7,554 speed violations. The enforcement activities of the ATE program have had a significant impact on speed violators entering our city and the business district.

Since the Bypass was created by the Iowa DOT it has been known as a speeding problem. As stated earlier in this document, the west bound approach at Mulberry Ave/Us 61 was chosen for accident reduction but also for speed enforcement which was a critical issue identified prior to implementation. Both goals have been achieved. The crash rate in 2010 was 10 motor vehicle crashes. The crash rate in 2015 that crash rate was 4 crashes (once again, all property damage crashes)! Speed violations at this intersection have decreased since the start of the program. In 2011, 2,600 speed violations were issued from that ATE approach during the 8 month period of operation. In 2015, there were 1332 speed violations.

Are the traffic cameras having any effect on the driving habits of area drivers? After looking at the statistics for citations and crashes for the time the ATE systems have been installed and running we believe they are. Comparing the year prior to the implementation (2010) to this year, there has been a 44% reduction in crashes at these intersections with a 78% reduction in personal injury crashes! Even though we saw an increase in violations this year we are still had 27% fewer violations this year than occurred the first year of this program. Also, the ATE systems were not activated for the full year in 2011.

University Dr at US Hwy 61

March 18, 2011

Year	Number of Crashes	Crash Types	RL Violations Issued	Speed Violations Issued	
2009	5	PI - 1 PD - 4	NA	NA	
2010	5	PI - 1 PD - 4	NA	NA	
2011	7	PI - 4 PD - 3	83	12851	8 month period
2012	6	PI - 1 PD - 5	126	8992	
2013	5	PI - 1 PD - 4	102	7638	
2014	5	PI - 1 PD - 4	124	8018	
2015	4	PI - 1 PD - 3	148	7554	

Mulberry Ave at US Hwy 61

March 18, 2011

Year	Number of Crashes	Crash Types	RL Violations Issued	Speed Violations Issued	
2009	5	PI - 0 PD - 5	NA	NA	
2010	10	PI - 4 PD - 6	NA	NA	
2011	10	PI - 3 PD - 7	214	2600	8 month period
2012	8	PI - 4 PD - 4	192	1551	
2013	4	PI - 1 PD - 3	227	868	
2014	3	PI - 0 PD - 3	168	1086	
2015	4	PI - 0 PD - 4	239	1332	

Cleveland and Park Ave (Business Hwy 61)

March 18, 2011

Year	Number of Crashes	Crash Types	RL Violations Issued	Speed Violations Issued
2009	8	PI - 1 PD - 7	NA	NA
2010	5	PI - 2 PD - 3	NA	NA
2011	6	PI - 0 PD - 6	812	1904
2012	4	PI - 0 PD - 4	1102	1709
2013	5	PI - 2 PD - 3	824	1582
2014	8	PI - 0 PD - 8	994	1872
2015	2	PI - 0 PD - 2	971	2086

8 month period

Washington and Park Ave (Business Hwy 61)

May 12, 2011

Year	Number of Crashes	Crash Types	RL Violations Issued	Speed Violations Issued
2009	10	PI - 4 PD - 6	NA	NA
2010	5	PI - 1 PD - 4	NA	NA
2011	3	PI - 1 PD - 2	305	336
2012	3	PI - 1 PD - 2	763	422
2013	4	PI - 0 PD - 4	681	589
2014	3	PI - 1 PD - 2	723	425
2015	7	PI - 1 PD - 6	710	511

7 month period

Cedar St at Houser St

March 11, 2011

Year	Number of Crashes	Crash Types	RL Violations Issued	Speed Violations Issued	
2009	6	PI - 2 PD - 4	NA	NA	
2010	9	PI - 1 PD - 8	NA	NA	
2011	2	PI - 1 PD - 1	513	131	8 month period
2012	5	PI - 0 PD - 5	493	112	
2013	1	PI - 0 PD - 1	713	145	
2014	6	PI - 0 PD - 6	231	35	
2015	2	PI - 0 PD - 2	799	93	