

A Red Light Running (RLR) Photo Enforcement System was installed at the intersection of IL Rte. 64 (North) at IL Rte. 59 (southbound and eastbound) on May 24, 2008, after finding limited success with other attempted measures to promote safer driving and improve compliance with traffic laws. As a condition of use, both Illinois law and the Illinois Department of Transportation require periodic statistical analyses / evaluations be conducted.

Specifically, the Illinois Compiled Statutes, 625 ILCS 5/11-208.6 Automated Traffic Law Enforcement System states:

(k-7) A municipality or county operating an automated traffic law enforcement system shall conduct a statistical analysis to assess the safety impact of each automated traffic law enforcement system at an intersection following installation of the system. The statistical analysis shall be based upon the best available crash traffic and other date, and shall cover a period of time before and after installation of the system sufficient to provide a statistically valid comparison of safety impact. The statistical analysis shall be consistent with professional judgment and acceptable industry practice. The statistical analysis also shall be consistent with the data required for valid comparisons of before and after conditions and shall be conducted within a reasonable period following the installation of the automated traffic law enforcement system. The statistical analysis required by this subsection (k-7) shall be made available to the public and shall be published on the website of the municipality or county. If the statistical analysis for the 36-month period following installation of the system, the municipality or county shall undertake additional studies to determine the cause and severity of the accidents, and may take any action that it determines is necessary or appropriate to reduce the number or severity of the accidents at that intersection.

The Illinois Department of Transportation Safety Engineering Policy Memorandum, Safety 2-13, Automated Traffic Law Enforcement Systems: Red Light Running (RLR) Camera Enforcement Systems and Automated Railroad Grade Crossing (RGC) Enforcement Systems states:

#### Follow Up Evaluation

An Evaluation Report shall be prepared by the Permit Applicant one year after the installation and shall be prepared every three years thereafter. The Evaluation Report shall include the following:

- Intersection location(s);
- Date of implementation;
- *RLR Camera System manufacturer and contractor name;*
- Crash data specific to RLR location(s) for the three (3) year period prior to and for the period post RLR Camera installation;
- An analysis of the crash data, including a summary of any increase in crash types;
- Signal timing and other settings before and after RLR Camera installation;
- Traffic volumes before and after RLR Camera System installation; and,
- Summary of adjudication experience and results.

The following statistical analysis was performed through 2015.

Calendar year 2016 was not included, as the Illinois Department of Transportation (IDOT) has not yet completed collecting all data. The statistical analysis will be updated annually, as IDOT collected data becomes available for release.



# IL Rte. 64 (North) at IL Rte. 59 West Chicago, IL

- RLR Photo Enforcement System monitors violations occurring on the eastbound and westbound approaches of the intersection
- RLR Photo Enforcement System installed: May 24, 2008





## IL Rte. 64 (North) at IL Rte. 59 - Northbound Approach



## IL Rte. 64 (North) at IL Rte. 59 - Southbound Approach





#### IL Rte. 64 (North) at IL Rte. 59 - Eastbound Approach



IL Rte. 64 (North) at IL Rte. 59 - Westbound Approach





# **Average Daily Traffic**

Data was obtained from the Illinois Department of Transportation's website <u>www.gettingaroundillinois.com</u> and includes all available information.

IL Rte. 64 (North) at IL Rte. 59 - (Northbound)

- 27,600 (2009)
- 25,400 (2011)
- 24,100 (2014)
- 30,100 (2015)
- 29,700 (2017)





## **Average Daily Traffic**

Data was obtained from the Illinois Department of Transportation's website <u>www.gettingaroundillinois.com</u> and includes all available information.

IL Rte. 64 (North) at IL Rte. 59 - (Southbound)

- 30,900 (2009)
- 31,800 (2012)
- 29,800 (2014)
- 34,200 (2015)
- 35,200 (2017)





## Average Daily Traffic (continued)

Data was obtained from the Illinois Department of Transportation's website <u>www.gettingaroundillinois.com</u> and includes all available information.

IL Rte. 64 (North) at IL Rte. 59 - (Eastbound)

- 37,200 (2009)
- 36,200 (2011)
- 30,500 (2012)
- 34,700 (2014)
- 38,500 (2015)
- 37,300 (2017)





## Average Daily Traffic (continued)

Data was obtained from the Illinois Department of Transportation's website <u>www.gettingaroundillinois.com</u> and includes all available information.

IL Rte. 64 (North) at IL Rte. 59 - (Westbound)

- 38,600 (2009)
- 32,200 (2012)
- 36,200 (2014)
- 39,100 (2015)
- 38,000 (2017)





## **Adjudication Experience**

RLR camera violations are contested and adjudicated through a monthly administrative hearing. Adjudication data for the City's Automated Enforcement Program is shown below in Table 1.

CITY OF WEST CHICAGO ADJUDICATION FOR									
AUTOMATED PHOTO ENFORCEMENT PROGRAM									
YEAR /TOTALS	LIABLE	NOT LIABLE							
2008	579	19							
2009	2063	73							
2010	892	61							
2011	513	31							
2012	434	97							
2013	558	74							
2014	336	13							
2015	428	25							
2016	290	12							
2017	237	9							
2018	252	5							
2019**	121	4							
TOTAL	6,703	423							

\*Adjudication totals include contested violations for entire program (all RLR cameras). \*\*2019 totals through October 2019

Table 1

The high-quality video footage and photographic evidence produced by the enforcement system is a contributing factor in a majority of the contested RLR violations being upheld by the Hearing Officer. The police officers assigned to review and approve/reject potential violations are vigilant in applying the same officer discretion and criteria they would if issuing an in-person citation, resulting in only highly prosecutable violations being mailed to violators.



9.2%

9.1%

6.3%

8.2%

5.3

16

Total

65

66

63 194

64.7

#### **Crash History and Analysis**

Total:

2005-2007

Average

Table 2 includes crash data obtained from the Illinois Department of Transportation, detailing . angle, turning, rear-end, and other type crashes occurring at the intersection pre/post RLR Photo Enforcement System installation.

		nonen						
					Crashes			
	Rear	-End	Angle		Turning		Other	
	(% of	Total)	(% of Total)		(% of Total)		(% of Total)	
2005	44	67.7%	1	1.5%	14	21.5%	6	9.2%
2006	34	51.5%	2	3.0%	24	36.4%	6	9.1%
2007	39	61.9%	2	3.2%	18	28.6%	4	6.3%

1.7

5

#### **ALL INTERSECTION APPROACHES**

117

39.0

60.3%

RLR Camera Installation: May 24, 2008									
2008	14	53.8%	1	3.8%	8	30.8%	3	11.5%	26
2009	19	65.5%	0	0.0%	10	34.5%	0	0.0%	29
2010	17	54.8%	0	0.0%	11	35.5%	3	9.7%	31
2011	26	66.7%	1	2.6%	10	25.6%	2	5.1%	39
2012	18	69.2%	2	7.7%	3	11.5%	3	11.5%	26
2013	19	63.3%	1	3.3%	8	26.7%	2	6.7%	30
2014	26	70.3%	0	0.0%	7	18.9%	4	10.8%	37
2015	15	50.0%	0	0.0%	10	33.3%	5	16.7%	30
2016	18	56.2%	0	0.0%	9	28.1%	5	15.6%	32
2017	15	55.5%	2	7.4%	6	22.2%	4	14.8%	27
Total:	173	61.6%	6	2.1%	74	26.3%	28	10.0%	281
2009-2017									
Average	19	9.2	0.	.7	8	.2	ŝ	3.1	31.2

2.6%

56

28.9%

18.7

Other indicates the following: Pedestrian, Pedal Cyclist, Fixed Object, Sideswipe, Head-On and Unknown

#### Table 2

DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation, based upon information derived from multiple sources. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in prior years, since the data prior to 2015 was physically located by bureau personnel. Given the subjective nature of the reporting process, the modifications in the incident locating protocols and the changes to the crash reporting thresholds effective 2009, the City of West Chicago acknowledges the potential for discrepancies in the final conclusions drawn.



## Crash History and Analysis (continued)

• Table 3 includes crash data obtained from the Illinois Department of Transportation, detailing angle, turning, rear-end, and other-type crashes occurring at the intersection on the southbound and eastbound approaches only, pre/post RLR Photo Enforcement System installation.

#### SOUTHBOUND / EASTBOUND APPROACHES ONLY (PHOTO ENFORCED APPROACHES)

	Crashes								
	Rear-End		Angle		Turning		Other		
	(% of	Total)	(% of '	(% of Total)		(% of Total)		(% of Total)	
2005	24	70.6%	1	2.9%	7	20.6%	2	5.9%	34
2006	19	46.3%	2	4.9%	15	36.6%	5	12.2%	41
2007	16	43.2%	2	5.4%	17	45.9%	2	5.4%	37
Total:	59	52.7%	5	4.5%	39	34.8%	9	8.0%	112
2005-2007									
Average	19.7		1.7		13.0		3.0		37.3

RLR Camera Installation: May 24, 2008										
2008	9	50.0%	1	5.5%	6	33.3%	2	11.1%	18	
2009	6	46.1%	0	0.0%	7	53.8%	0	0.0%	13	
2010	7	41.2%	0	0.0%	7	41.2%	3	17.6%	17	
2011	14	66.6%	1	4.8%	5	23.8%	1	4.8%	21	
2012	8	57.1%	2	14.3%	2	14.3%	2	14.3%	14	
2013	8	57.1%	1	7.1%	3	21.4%	2	14.3%	14	
2014	10	55.5%	0	0.0%	5	27.8%	3	16.7%	18	
2015	8	44.4%	0	0.0%	7	38.9%	3	16.7%	18	
2016	5	35.7%	0	0.0%	6	42.8%	3	21.4%	14	
2017	10	55.5%	2	11.1%	4	22.2%	2	11.1%	18	
Total:	76	51.7%	6	4.1%	46	31.3%	19	12.9%	147	
2009-2017										
Average	8	.4	0.	.7	5.	.1	2	2.1	16.3	

• Other indicates the following: Pedestrian, Pedal Cyclist, Fixed Object, Sideswipe, Head-On and Unknown

#### Table 3

DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation, based upon information derived from multiple sources. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in prior years, since the data prior to 2015 was physically located by bureau personnel. Given the subjective nature of the reporting process, the modifications in the incident locating protocols and the changes to the crash reporting thresholds effective 2009, the City of West Chicago acknowledges the potential for discrepancies in the final conclusions drawn.



Comparison of annual averages shows a 51.8% decrease in the total number of crashes occurring at the intersection for all approaches and a 56.3% decrease on the southbound/eastbound (photo enforced) approaches post-camera installation.

The US Department of Transportation Project Development and Design Manual states that turning, angle or head-on crashes have a few probable crash causes, to include:

- Large volumes of left / right turns
- Large total intersection volume
- Excessive speed on approaches
- Inadequate traffic control devices
- Poor visibility of signals

While red light cameras cannot truly decrease the volume of cars entering the intersection, speed and proximity of vehicles entering an intersection or the amount of turning traffic volume, red-light cameras and red-light camera photo enforcement warning signs have the ability to reduce traffic crashes and improve compliance with traffic control devices.

Analysis of all available data indicates the City's RLR Photo Enforcement Program has made a significant impact on traffic safety at this intersection. Continued enforcement will be beneficial in the years to come.