



A Red Light Running (RLR) Photo Enforcement System was installed at the intersection of Milwaukee Avenue and Dundee Road (northbound/westbound) on April 1, 2009, 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 data 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 indicates that there has been an increase in the rate of accidents at the approach to the intersection monitored by 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 and evaluation was performed through 2020.

Calendar year 2021 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.

Milwaukee Ave. & Dundee Rd. Wheeling, IL

- RLR Photo Enforcement System monitors violations occurring on the northbound and westbound approaches of the intersection
- RLR Photo Enforcement System installed: April 1, 2009
- Traffic signal timing strictly adheres to the guidelines for timing of clearances established by the Illinois Department of Transportation (IDOT), in accordance with the MUTCD standards. Neither the Vendor nor the Village has access to or influence over the establishment of signal timings. Both entities understand that tampering with these timings would be a safety violation with significant consequences.





Milwaukee Ave. & Dundee Rd. - Northbound Approach



Milwaukee Ave. & Dundee Rd. - Southbound Approach





Milwaukee Ave. & Dundee Rd. - Eastbound Approach



Milwaukee Ave. & Dundee Rd. - Westbound Approach





Average Daily Traffic

Data was obtained from the Illinois Department of Transportation's website
www.gettingaroundillinois.com.

Milwaukee Ave. & Dundee Rd. (Northbound)

- 23,500 (2010)
- 27,200 (2011)
- 31,200 (2013)
- 27,400 (2015)
- 26,300 (2017)
- 24,800 (2019)



Average Daily Traffic Cont'd

Data was obtained from the Illinois Department of Transportation's website
www.gettingaroundillinois.com.

Milwaukee Ave. & Dundee Rd. (Southbound)

- 24,200 (2019)



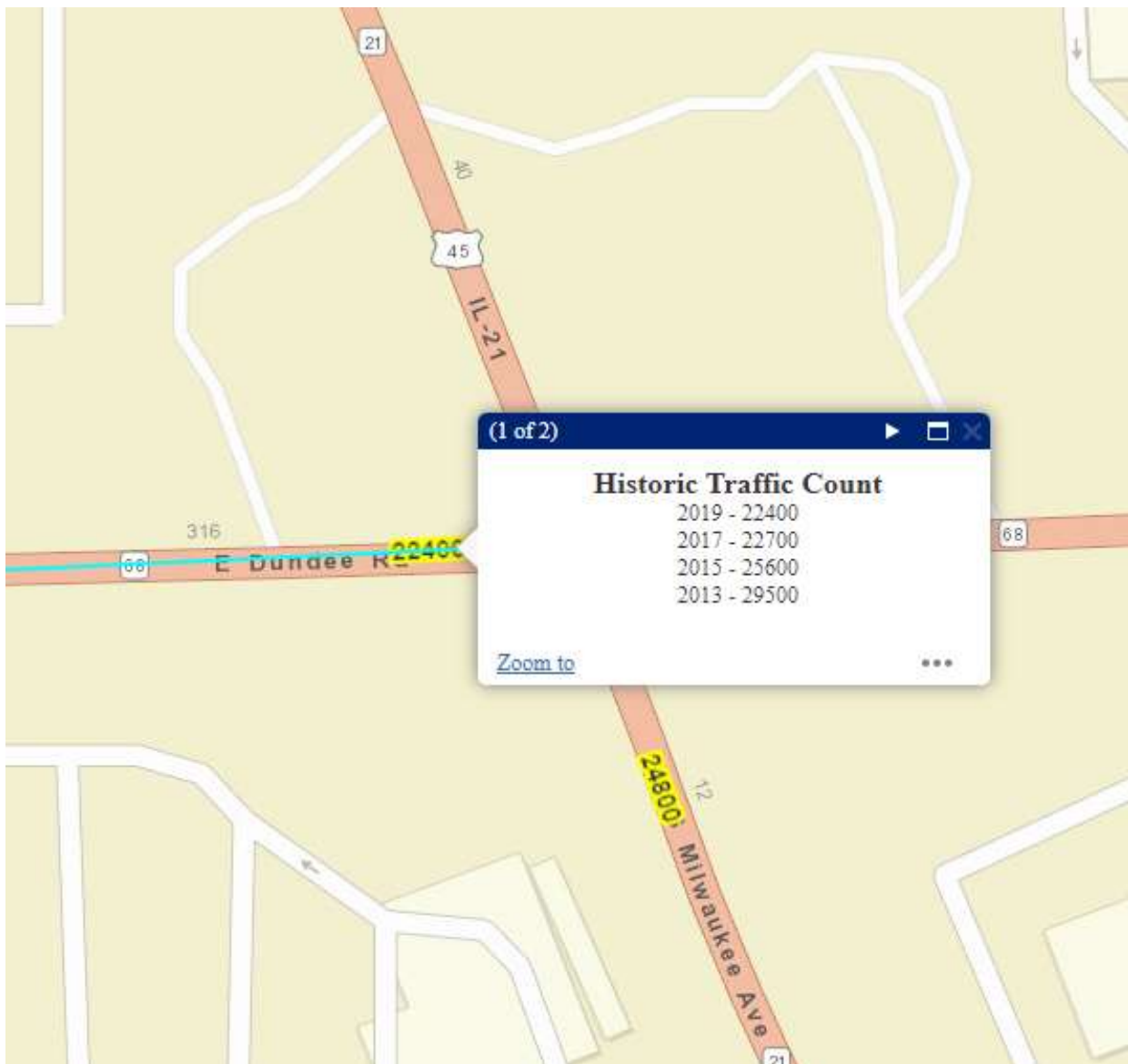


Average Daily Traffic Cont'd

Data was obtained from the Illinois Department of Transportation's website
www.gettingaroundillinois.com.

Milwaukee Ave. & Dundee Rd. (Eastbound)

- 29,500 (2013)
- 25,600 (2015)
- 22,700 (2017)
- 22,400 (2019)





Average Daily Traffic Cont'd

Data was obtained from the Illinois Department of Transportation's website www.gettingaroundillinois.com.

Milwaukee Ave. & Dundee Rd. (Westbound)

- 32,900 (2013)
- 27,100 (2015)
- 23,700 (2017)
- 23,900 (2019)





Adjudication Experience

RLR camera violations are contested and adjudicated through an administrative hearing conducted each month. Adjudication data for the Village’s Automated Enforcement Program is shown below in Table 1. Data compiled is not intersection specific, rather totals for the program as a whole.

VILLAGE OF WHEELING ADJUDICATION FOR AUTOMATED PHOTO ENFORCEMENT PROGRAM*		
YEAR /TOTALS	LIABLE	NOT LIABLE
2009	804	83
2010	602	78
2011	357	50
2012	348	46
2013	340	45
2014	342	42
2015	463	46
2016	385	43
2017	397	30
2018	300	25
2019	332	21
2020	185	18
2021	93	10
2022**	6	1
TOTAL:	4,954	538

**Adjudication totals include contested violations for entire program (all RLR cameras).*

***2022 totals through January 2022*

Table 3

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 out.



Crash History and Analysis

- 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.

ALL INTERSECTION APPROACHES

	Crashes								
	Rear-End (% of Total)		Angle (% of Total)		Turning (% of Total)		Other (% of Total)		Total
2006	19	67.8%	0	0.0%	5	17.9%	4	14.3%	28
2007	19	61.3%	2	6.4%	6	19.4%	4	12.9%	31
2008	17	63.0%	0	0.0%	5	18.5%	5	18.5%	27
Total:	55	63.9%	2	2.3%	16	18.6%	13	15.1%	86
2006-2008 Avg:	18.3		0.7		5.3		4.3		28.7

RLR Camera Installation 04/01/2009									
2009	11	68.7%	0	0.0%	4	25.0%	1	6.3%	16
2010	7	63.6%	0	0.0%	3	27.3%	1	9.1%	11
2011	11	68.7%	0	0.0%	5	31.3%	0	0.0%	16
2012	14	70.0%	0	0.0%	3	15.0%	3	15.0%	20
2013	11	73.3%	0	0.0%	2	13.3%	2	13.3%	15
2014	15	75.0%	2	10.0%	3	15.0%	0	0.0%	20
2015	12	85.7%	0	0.0%	2	14.3%	0	0.0%	14
2016	8	88.9%	0	0.0%	0	0.0%	1	11.1%	9
2017	1	16.7%	0	0.0%	5	83.3%	0	0.0%	6
2018	3	42.9%	2	28.6%	1	14.3%	1	14.3%	7
2019	21	56.8%	1	2.7%	9	24.3%	6	16.2%	37
2020	2	66.7%	0	0.0%	1	33.3%	0	0.0%	3
Total:	105	66.4%	5	3.2%	34	21.5%	14	8.9%	158
2010-2020 Avg:	9.5		0.5		3.1		1.3		14.4

- 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 Village of Wheeling 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 northbound and westbound approaches only, pre/post RLR Photo Enforcement System installation.

NORTHBOUND AND WESTBOUND APPROACHES ONLY (PHOTO ENFORCED APPROACHES)

	Crashes								
	Rear-End (% of Total)		Angle (% of Total)		Turning (% of Total)		Other (% of Total)		Total
2006	13	65.0%	0	0.0%	4	20.0%	3	15.0%	20
2007	15	68.2%	1	4.5%	5	22.7%	1	4.5%	22
2008	11	57.9%	0	0.0%	5	26.3%	3	15.8%	19
Total:	39	63.9%	1	1.6%	14	22.9%	7	11.5%	61
2006-2008 Avg:	13.0		0.3		4.7		2.3		20.3

RLR Camera Installation 04/01/2009									
2009	4	50.0%	0	0.0%	3	37.5%	1	12.5%	8
2010	6	66.7%	0	0.0%	2	22.2%	1	11.1%	9
2011	7	63.6%	0	0.0%	4	36.4%	0	0.0%	11
2012	9	64.3%	0	0.0%	3	21.4%	2	14.3%	14
2013	4	50.0%	0	0.0%	2	25.0%	2	25.0%	8
2014	9	64.3%	2	14.3%	3	21.4%	0	0.0%	14
2015	6	85.7%	0	0.0%	1	14.3%	0	0.0%	7
2016	4	100.0%	0	0.0%	0	0.0%	0	0.0%	4
2017	0	0.0%	0	0.0%	4	100.0%	0	0.0%	4
2018	2	33.3%	2	33.3%	1	16.7%	1	16.7%	6
2019	9	42.8%	1	4.8%	7	33.3%	4	19.0%	21
2020	1	50.0%	0	0.0%	1	50.0%	0	0.0%	2
Total:	57	57.0%	5	5.0%	28	28.0%	10	10.0%	100
2010-2020 Avg:	5.2		0.5		2.5		0.9		9.1

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

Table 3

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Comparison of annual averages shows the total number of crashes decreasing by 49.8% at the intersection for all approaches and by 55.2% on the northbound and westbound (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 number of 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

A red-light camera does not have the capability of directly influencing the volume of cars traveling through an intersection, vehicle speed, or the proximity of cars following one another. That is entirely at the discretion of the driver. Red-light cameras can however improve driver compliance with traffic control devices simply by their presence, along with warning signs indicating cameras are in use. They do in fact have the capability to “change driver behavior”.

Analysis of all available data indicates the Village of Wheeling’s RLR Photo Enforcement Program has done just that – changed driver behavior – and has made a significant positive impact on traffic safety. The Village feels strongly that continued use of automated enforcement, along with monitoring traffic crash data is necessary to ensure the highest level of traffic safety is achieved.