


MEMORANDUM

Date: January 21, 2021
To: Michael G. Bartholomew, City Manager
From: Dave Anderson, Chief of Police 
Subject: Photo Red Light Enforcement Program

Issue: Based on a request of the City Council on January 4, 2020, the following memo provides information over the Red Light Running (RLR) Photo Enforcement System at the intersection on Golf and Rand.

Analysis: During the January 4, 2020, City Council meeting a resident raised concerns that the traffic signal and RedSpeed red light camera system was malfunctioning. Based on the resident's concerns, the City Council asked that staff respond to the resident's concerns and prepare an updated analysis of traffic crashes at the intersection, updated analysis of the issuance of citations since the "no turn on red" signage was installed in 2017, and a financial analysis of the program.

Red Light Camera Enforcement Process Overview: The City began consideration of a possible red light camera program in 2009. Originally, there were 20 locations identified as possible sites for red light cameras. Based on historical crash data, the Red Light Running (RLR) Photo Enforcement System was installed at the intersection of IL Rte. 58 (Golf Rd.) at US Rte. 12 (Rand Rd), on October 27, 2010.

The RedSpeed (RLR) system implemented by the City involved the installation of two sensors per lane of traffic; one triggers the system to be alert; the second, placed beyond the broad white painted stop line, triggers the camera to record for a violation. The camera stores the violations electronically, and each day, typically in the early morning hours, the data is uploaded to the vendors' website. Prior to sending the violations to the City, an employee of the vendor reviews the images and discards those "violations" that are statutorily allowable: i.e., funeral procession, emergency vehicles, snow plows, etc. The remaining "violations" are forwarded electronically to the Des Plaines Police Department, where a sworn officer reviews each violation individually. The direction given to the officer and the criteria used by the officer in determining whether or not a violation occurred is quite simple: "If the officer had witnessed the violation in-person, would he or she have issued a citation?" If the officer affirms the violation, the affirmed file is sent back to the vendor for the issuance of a notice of violation. Once a violation is received by the registered owner of the offending vehicle, the registered owner can view the video of the alleged violation via the internet, and then exercise one of three options:

1. They may pay the fine specified on the notice of violation;
2. They may contest the violation by mail, or
3. They may contest in person.

Contesting by mail causes the video to be reviewed by the hearing officer in the local adjudication court, and then making a determination as to whether or not a violation occurred (finding of liability). Contesting in person means that the owner of the vehicle is requesting a court date with the local hearing officer.

Crash History and Analysis:

Statistical Analysis: The following statistical analysis was performed through 2018. Calendar year 2019 and 2020 were not included as the Illinois Department of Transportation (IDOT) has not yet completed collecting all data. The statistical analysis will be updated annually, as collected data becomes available from IDOT.

Table 1 below 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

Table 1

Year	Rear-End		Angle		Turning		Other		Total
2007	14	58.3%	1	4.2%	6	25.0%	3	12.5%	24
2008	15	75.0%	1	5.0%	4	20.0%	0	0.0%	20
2009	9	81.8%	0	0.0%	2	18.2%	0	0.0%	11
Total:	38	69.1%	2	3.6%	12	21.8%	3	5.4%	55
2007-2009 Avg:	12.7		0.7		4.0		1.0		18.3
RLR Camera Installation: 10/27/2010									
2010	10	76.9%	0	0.0%	3	23.1%	0	0.0%	13
2011	7	50.0%	0	0.0%	7	50.0%	0	0.0%	14
2012	4	80.0%	0	0.0%	1	20.0%	0	0.0%	5
2013	12	60.0%	0	0.0%	8	40.0%	0	0.0%	20
2014	7	58.3%	1	8.3%	4	33.3%	0	0.0%	12
2015	6	42.8%	0	0.0%	6	42.8%	2	14.3%	14
2016	5	41.7%	2	16.7%	4	33.3%	1	8.3%	12
2017	6	42.8%	0	0.0%	6	42.8%	2	14.3%	14
2018	5	55.6%	0	0.0%	3	33.3%	1	11.1%	9
Total:	52	52.0%	3	3.0%	39	39.0%	6	6.0%	100
2011-2018 Avg:	6.5		0.4		4.9		0.7		12.5

A comparison of annual traffic crash averages shows the total number of crashes decreasing by 32% at the intersection since installation of the RLR system in 2010.

Citation Analysis: **Table 2** below shows the historical percentage of citations approved by the vendor versus those approved by the reviewing police officer between 2014 and 2020.

Table 2:

Year	Total Citations Captured	Total Approved by RSS	Total Approved by DPPD	% Approved	% Approved by DPPP Verses RSS
Golf & Rand					
2014-2020					
2014	143,324	15,382	9,012	11%	59%
2015	108,845	20,616	9,966	19%	48%
2016	98,734	18,623	10,152	19%	55%
2017	91,643	18,338	10,735	20%	59%
2018	16,754	7,827	6,159	47%	79%
2019	16,776	8,181	6,005	49%	73%
2020	16,903	7,432	6,217	44%	84%
Totals:	492,979	96,399	58,246	20%	60%

As you will note in Table 2 above, approximately 60% of the citations forwarded to the City from the vendor are approved by the reviewing police officer. In terms of total violations approved from the overall number captured, approximately 20% are submitted as violations. Also of note, the annual number of violations decreased by 46% after the no turn on red signs were installed in 2017.

Table 3 below includes a seven year historical overview of the amount of violations that were contested by mail and the final outcomes after the administrative hearing process.

Table 3: Citations Contested by Mail (CBM)

	CBM Liable	CBM Not Liable
2014	566	157
2015	490	146
2016	328	210
2017	346	225
2018	209	33
2019	115	33
2020	128	31
TOTALS:	2,182	835

Analysis: Over the seven year history reviewed, there were a total of 58,246 citations approved by DPPD staff, 2,182 were contested by mail, and 835 were found not liable. From a percentage perspective, only 4% of the total citations approved by DPPD were contested, and only 1.4% were found not liable.

Financial Analysis (7 Years)

Table 4 below includes a 7 year historical summary of the fines collected from the (RLR) system.

Table 4: Seven Year Financial History

Year	Services Fees, Camera Lease & Maintenance	Total Revenue by City
2014	\$310,390.21	\$613,432.80
2015	\$330,172.77	\$673,662.00
2016	\$332,574.84	\$695,409.35
2017	\$348,462.32	\$673,097.16
2018	\$224,398.43	\$478,859.23
2019	\$210,810.37	\$405,014.41
2020	\$219,585.39	\$353,727.54
TOTALS:	\$1,976,394.33	\$3,893,202.49

Analysis: Over the last seven years, RedSpeed received 34% of the total fines collected and the City received 66% of the total fines collected. Also of note, since the no turn on red signage was installed in 2017, the fine amount received by the City has also declined.

System Maintenance and function analysis: Staff made contact with MEADE, the City’s vendor who manages the traffic signal, and Redspeed to inquire if there had been any operational, maintenance, or other functional concerns in the last year with the traffic signal or the red light camera system. Both reported that there were no maintenance issues in the last 12 months with both the traffic signal and the Red Light Camera system.

Average Daily Traffic Count:

Data was obtained from the Illinois Department of Transportation’s website

IL Rte. 58 (Golf Rd.) at US Rte. 12 (Rand Rd.) (Northbound)

- 21,300 (2009)
- 20,100 (2011)
- 22,500 (2013)
- 30,600 (2017)

IL Rte. 58 (Golf Rd.) at US Rte. 12 (Rand Rd.) (Southbound)

- 23,600 (2009)
- 20,600 (2011)
- 19,000 (2013)
- 19,000 (2015)
- 24,300 (2017)

IL Rte. 58 (Golf Rd.) at US Rte. 12 (Rand Rd.) (Eastbound/Westbound)

- 28,300 (2009)
- 23,700 (2011)
- 26,000 (2013)
- 25,600 (2015)
- 23,500 (2017)

Recommendation: This information is being provided for discussion purposes only.