



THE VILLAGE OF SOUTH HOLLAND

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April 17, 2015

**John Fortmann P.E.
Deputy Director of Highways
Region One Engineer
Illinois Department of Transportation
Department of Highways/Region One/District One
201 West Center Court
Schaumburg, IL 60196**

Re: Red Light Photo Enforcement

Dear Mr. Fortmann:

On behalf of the Village of South Holland and the South Holland Police Department, enclosed you will find our evaluation report pertaining to the use of red light photo enforced cameras, as required by the Red Light Running (RLR) policy.

If you have any questions or require addition information, please feel free to contact me.

Sincerely,

Greg Baker
Chief of Police

Enc.

**Cc: Thomas G. Gallenbach, P.E.
 Traffic Permit Engineer**

This report is being submitted to the Illinois Department of Transportation (IDOT) regarding the Village of South Holland's implementation of red light cameras. According to the Red Light Running (RLR) policy, our agency is required to prepare an Evaluation Report at the conclusion of first year after camera installation and then every three years. The following information is included pertaining to the years 2006-2008, 2009, and 2011:

- Intersection location and RLR camera implementation background
- Crash data
- Analysis of the crash data by type of accident for each year
- Analysis of the crash data by location for each year
- Conclusion

Intersection location and RLR camera implementation

The Village of South Holland contracted with Redflex Traffic Systems, Inc. in July of 2007 for the installation of red light cameras at five (5) locations along the Village's main corridor known as Route 6 (or 162nd St.). The installation and functionality of each location was completed at the beginning of 2009.

From the eastern to the western border of the community, those intersection locations are:

- Eastbound on Route 6 at Van Dam Road
- Eastbound on Route 6 at Woodlawn Avenue East
- Westbound on Route 6 at Cottage Grove Avenue
- Eastbound on Route 6 at Cottage Grove Avenue
- Westbound on Route 6 at State Street

With an estimated 35,000 vehicles per day, Route 6 is the community's main corridor. The state route is utilized by local residents, commuters, students, and visitors to the community. Because South Holland is at the intersection of Interstates 94 and 80, Rte. 6 is also utilized as an alternative to the interstate, especially when congestion is apparent on these major arteries.

At the time of red light camera implementation, the criteria for a successful RLR program was to increase the safety of our intersections, better enforce traffic laws due to 24/7 observance, and improve the police department's ability to protect and enhance our residents' quality of life through the reallocation of department resources.

Crash Data

| 2006 Crash Data | Eastbound Van Dam | Eastbound Woodlawn East | West/Eastbound Cottage Grove | Westbound State | Totals |
|------------------------|------------------------------|------------------------------------|---|----------------------------|---------------|
| Turning | 2 | 4 | 1 | 1 | 8 |
| Rear End | 9 | 3 | 8 | 9 | 29 |
| Angle | 3 | 4 | 3 | 1 | 11 |
| Other* | 5 | 3 | 13 | 8 | 29 |
| <i>Totals</i> | 19 | 14 | 25 | 19 | 77 |

| 2007 Crash Data | Eastbound Van Dam | Eastbound Woodlawn East | West/Eastbound Cottage Grove | Westbound State | Totals |
|------------------------|------------------------------|------------------------------------|---|----------------------------|---------------|
| Turning | 4 | 3 | 8 | 3 | 18 |
| Rear End | 9 | 8 | 8 | 7 | 32 |
| Angle | 2 | 1 | 2 | 0 | 5 |
| Other* | 4 | 7 | 8 | 11 | 30 |
| <i>Totals</i> | 19 | 19 | 26 | 21 | 85 |

| 2008 Crash Data | Eastbound Van Dam | Eastbound Woodlawn East | West/Eastbound Cottage Grove | Westbound State | Totals |
|------------------------|------------------------------|------------------------------------|---|----------------------------|---------------|
| Turning | 0 | 1 | 7 | 3 | 11 |
| Rear End | 10 | 7 | 8 | 5 | 30 |
| Angle | 0 | 2 | 1 | 0 | 3 |
| Other* | 0 | 6 | 5 | 9 | 20 |
| <i>Totals</i> | 10 | 16 | 21 | 17 | 64 |

| Average 2006-2008 | Eastbound Van Dam | Eastbound Woodlawn East | West/Eastbound Cottage Grove | Westbound State | Totals |
|------------------------------|------------------------------|------------------------------------|---|----------------------------|---------------|
| Turning | 2.0 | 2.7 | 5.3 | 2.3 | 12.3 |
| Rear End | 9.3 | 6.0 | 8.0 | 7.0 | 30.3 |
| Angle | 1.7 | 2.3 | 2.0 | 0.3 | 6.3 |
| Other* | 3.0 | 5.3 | 8.7 | 9.3 | 26.3 |
| <i>Totals</i> | 16.0 | 16.3 | 24.0 | 19.0 | 75.3 |

| 2009 Crash Data | Eastbound Van Dam | Eastbound Woodlawn East | West/Eastbound Cottage Grove | Westbound State | Totals |
|-----------------|----------------------|----------------------------|---------------------------------|--------------------|-----------|
| Turning | 1 | 5 | 4 | 5 | 15 |
| Rear End | 3 | 5 | 3 | 4 | 15 |
| Angle | 1 | 0 | 0 | 0 | 1 |
| Other* | 0 | 4 | 3 | 0 | 7 |
| <i>Totals</i> | 5 | 14 | 10 | 9 | 38 |

| 2011 Crash Data | Eastbound Van Dam | Eastbound Woodlawn East | West/Eastbound Cottage Grove | Westbound State | Totals |
|-----------------|----------------------|----------------------------|---------------------------------|--------------------|-----------|
| Turning | 0 | 4 | 3 | 5 | 12 |
| Rear End | 5 | 8 | 5 | 5 | 23 |
| Angle | 1 | 0 | 0 | 0 | 1 |
| Other* | 1 | 4 | 4 | 6 | 15 |
| <i>Totals</i> | 7 | 16 | 12 | 16 | 51 |

**Side Swipe, Head-On, Pedestrian, Bicycle, Fixed Objects*

Crash Data Analysis

Total Accidents:

- Before RLR camera installation, an average of 75.3 total accidents occurred annually at these locations between the years of 2006 and 2008. Using this average, the total amount of annual accidents were **reduced by approximately 50% in 2009 and 32% in 2011.**
- The highest total number of accidents was 85 in 2007 and the lowest number of accidents amongst all locations was immediately after RLR camera installation in 2009 with 38 total accidents.

A. Analysis by Type of Accident

1. Turning Collisions:

- Before RLR camera installation, an average of 12.3 turning collisions occurred annually at these locations between the years of 2006 and 2008. Using this average, the total amount of annual rear end collisions **increased by approximately 25% in 2009 and realized no significant change in 2011.**

2. Rear End Collisions:

- Before RLR camera installation, an average of 30.3 rear-end collisions occurred annually at these locations between the years of 2006 and 2008. Using this average, the total

amount of annual rear-end collisions were reduced by approximately 50% in 2009 and 23% in 2011.

3. Angled Collisions:

- Before RLR camera installation, an average of 6.3 angled collisions occurred annually at these locations between the years of 2006 and 2008. Using this average, the total amount of annual angled collisions were reduced by approximately 83% in 2009 and 83% again in 2011.

4. Other Accidents/Collisions:

- Before RLR camera installation, an average of 26.3 other accidents/collisions occurred annually at these locations between the years of 2006 and 2008. These incidents consist of side-swipe, fixed-object, and head-on collisions, in addition to pedestrian and bicycle accidents. Using this average, the total amount of annual angled collisions were reduced by approximately 73% in 2009 and 43% in 2011.

B. Analysis by Location

1. Eastbound Van Dam Road

- Before RLR camera installation, an average of 16 accidents occurred annually at this intersection between the years of 2006 and 2008. Using this average, the total amount of annual collisions decreased by approximately 69% in 2009 and 56% in 2011.

2. Eastbound Woodlawn East Road

- Before RLR camera installation, an average of 16.3 accidents occurred annually at this intersection between the years of 2006 and 2008. Using this average, the total amount of annual collisions decreased by approximately 13% in 2009 and realized no significant change in 2011.

3. West and Eastbound at Cottage Grove Avenue

- Before RLR camera installation, an average of 24 accidents occurred annually at this intersection between the years of 2006 and 2008. Using this average, the total amount of annual collisions decreased by approximately 58% in 2009 and 50% in 2011.

4. Westbound State Street

- Before RLR camera installation, an average of 19 accidents occurred annually at this intersection between the years of 2006 and 2008. Using this average, the total amount of annual collisions decreased by approximately 53% in 2009 and 16% in 2011.

Conclusion

Based on the established criterion for the effectiveness of the program, RLR implementation has been a positive addition to the village. Since the installation of the red light cameras, the obvious fact is that these intersections have become safer because of their presence.

There have also been other positive outcomes as a consequence of having an RLR program. Safety for our officers has been enhanced through the reduction of traffic stops on a congested Rte. 6 due to red light violations. Safety throughout the community has also improved as a result of increased officer presence in residential areas, in addition to greater numbers of officers dedicated to the crime deterrence and crime solving activities.

Since the installation of red light cameras, the Village has experienced a significant drop in crime rate. In 2008 (prior to installation of the cameras) the crime index for the Village of South Holland was 709; in 2014 the crime index was 444. This drop represents a 37% decrease in crime.

Moving forward, our department will continue to monitor the designated locations and continue with traffic studies to assess both the direct and indirect benefits of having an RLR program within our village.