



# Memo

**TO:** Chief Smith  
**FROM:** TST Tuckman  
**DATE:** Tuesday, August 23, 2022  
**SUBJECT:** 3 Year Follow-up Evaluation Report:  
Route 41 / Delany Road

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Chief Smith,

Per the Illinois Department of Transportation policy on Red Light Running Camera Systems (RLR), we are required to present an evaluation report one year after operation of a photo enforced intersection(s) and every three years after.

In accordance with their policy the following information is needed for the evaluation report:

- Intersection Location(s).
- Date of implementation.
- RLR Camera System manufacturer and contractor name.
- Crash data specific to the RLR location(s) for the 3-year period prior to and for the period post RLR Camera installation. The crash data shall include yearly collision diagrams of the intersection(s).
- An analysis of the crash data, including a summary of any increases or decreases in crash types.
- Signal timings and other settings before and after RLR Camera installation.
- Traffic volumes before and after RLR Camera System installation. The traffic volumes shall include both Average Daily and Peak Period traffic.
- Recommendations to further reduce red light violations, severe crashes and to improve the operation of the intersection(s).
- Summary of adjudication experience and results.

The report is attached



# US ROUTE 41 / DELANY ROAD

## RED LIGHT PHOTO ENFORCEMENT 3 YEAR FOLLOW-UP REPORT

2019-2021

August 2022

## Overview

The Village of Gurnee is required to submit a Follow-Up Evaluation report to the Illinois Department of Transportation for the intersection of Rte. 41 at Delany Road two years after the re-installation of a Red Light Running Camera System (RLR). After this follow up report is completed the Village is required to submit evaluation reports every three years to the Illinois Department of Transportation.

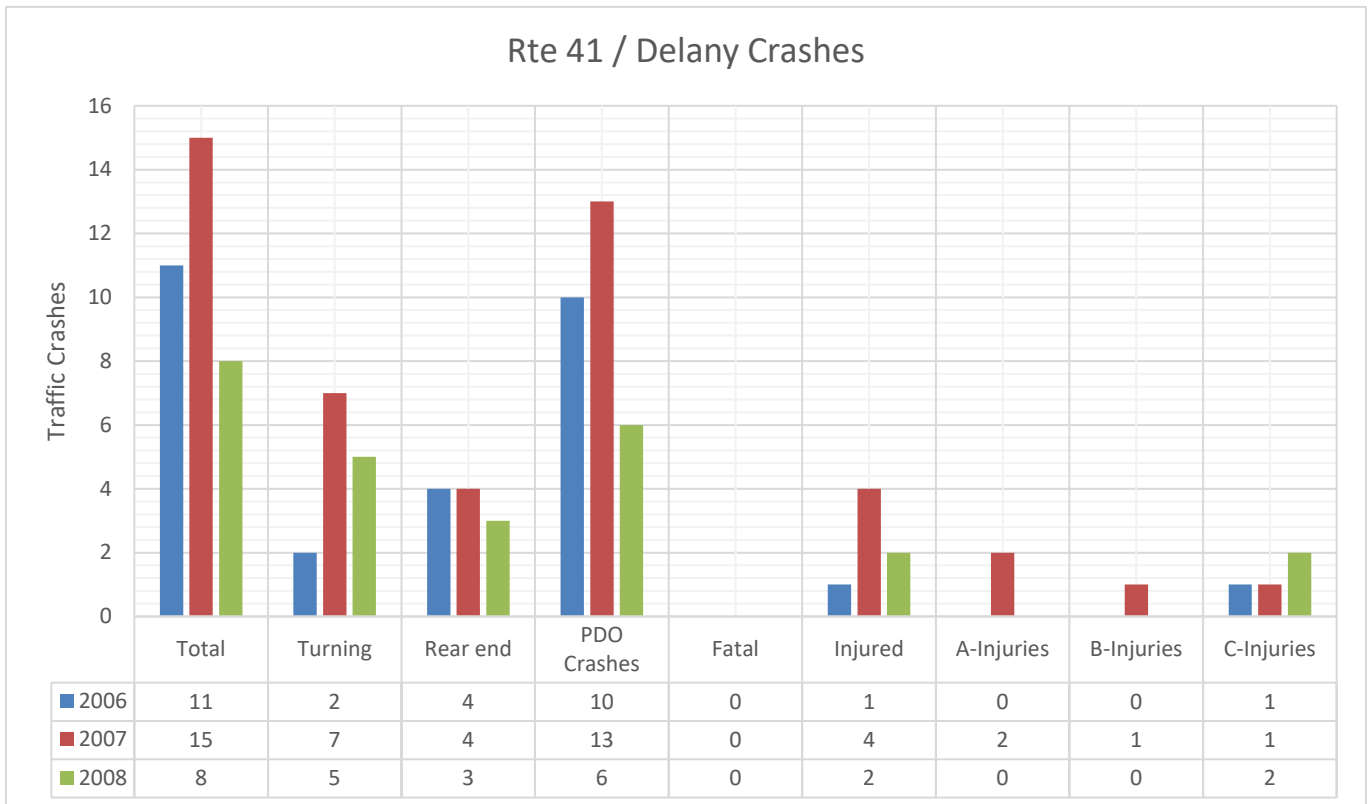
On December 3, 2007, the Village of Gurnee entered into agreement with Redflex Traffic Systems Inc. to install Red Light Running Camera Systems at several intersections throughout the Village.

The RLR was installed for both the eastbound and westbound approach on Rte. 41 at Delany Road. On June 20, 2009 the intersection testing and warning phase was completed and it went fully operational with citations being issued. The RLR was removed in July 2015 for intersection improvements and was re-activated on an interim basis March 1, 2017.

## Crash Data

- The crash data specific to the RLR location(s) for a 3-year period (Exhibit #1) prior to and for the period post (Exhibit #2) RLR installation.

### Exhibit #1

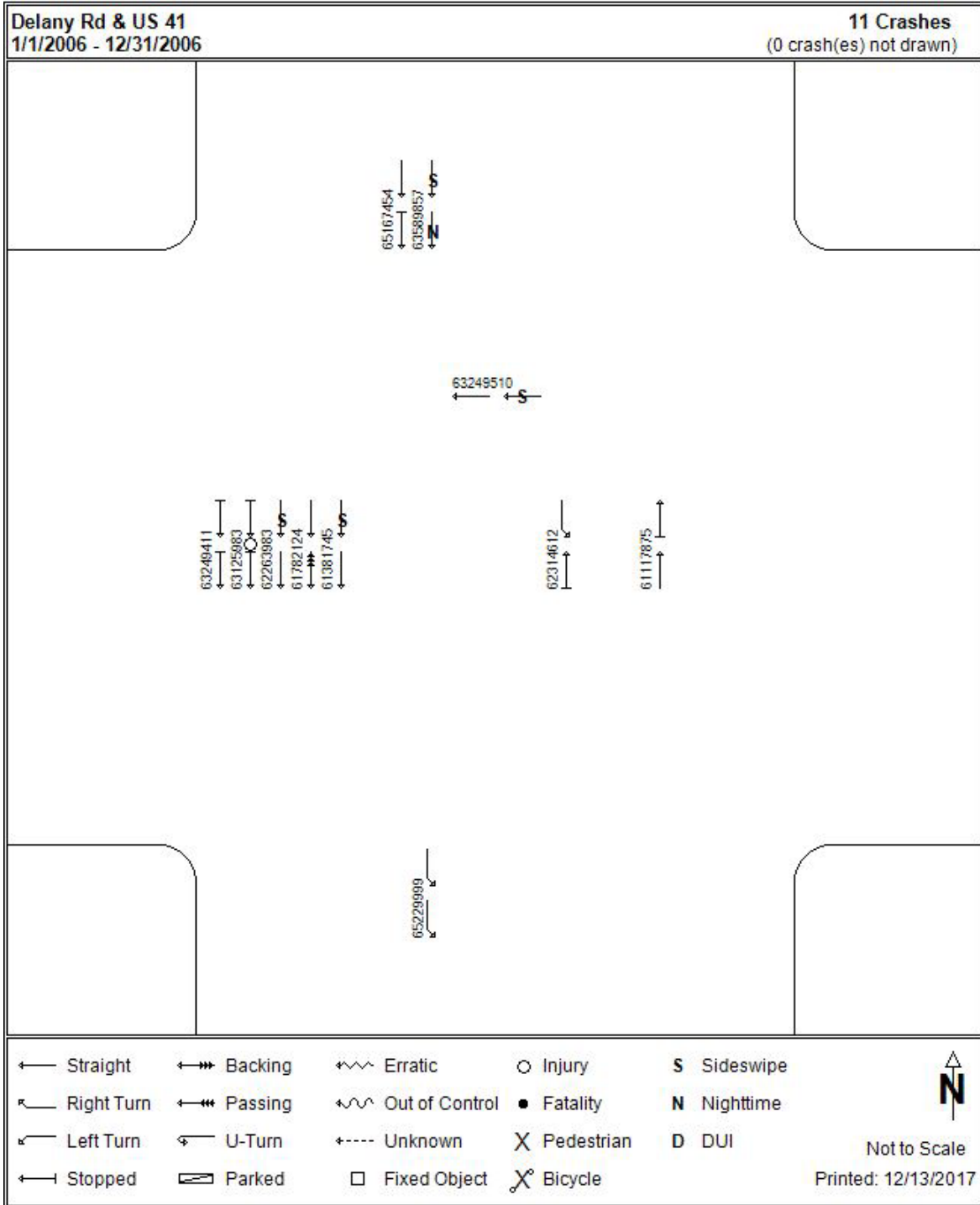


The above chart data is by calendar year - running January through December

2006 Traffic Crash Map (Data located on Exhibit #1)



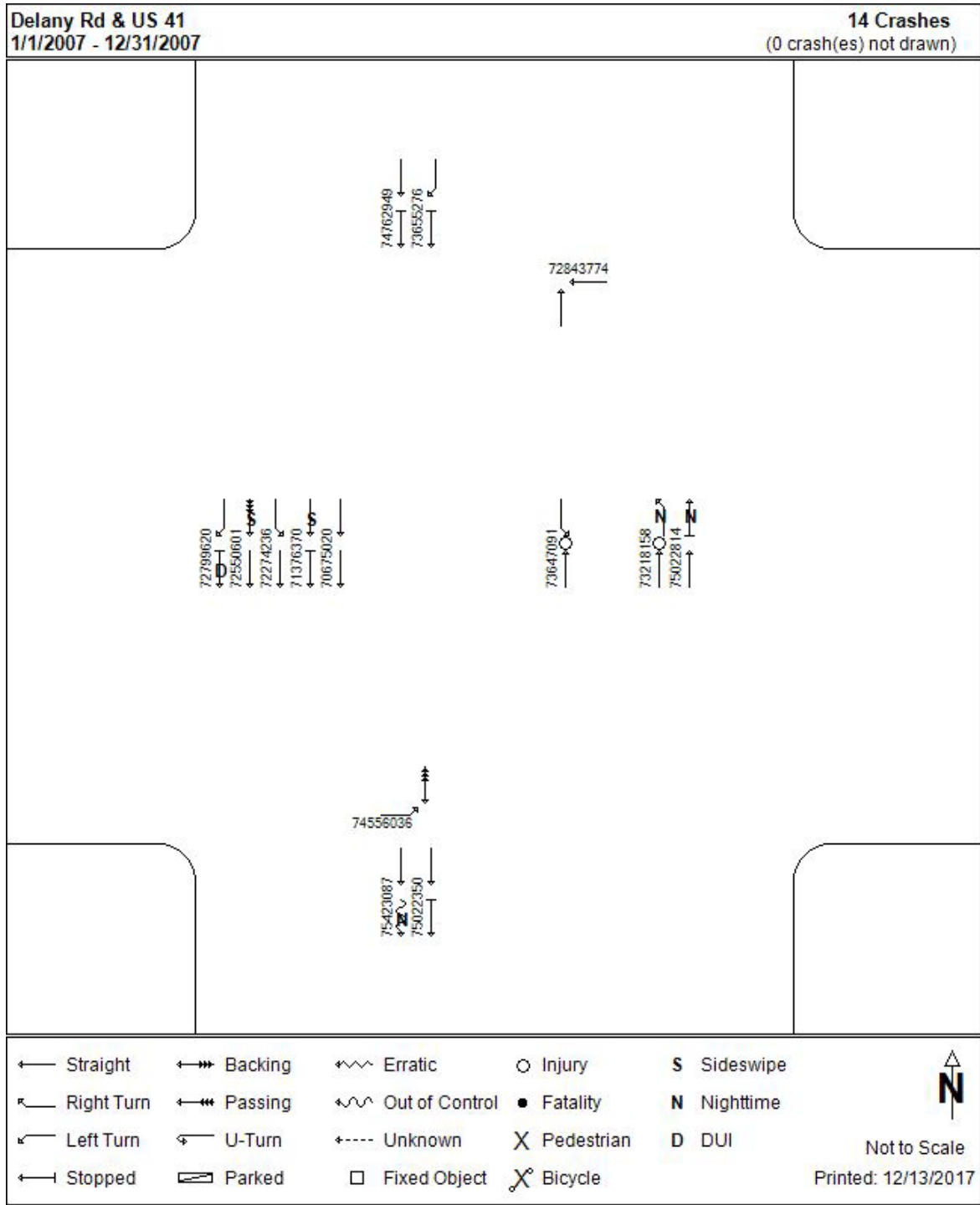
## 2006 Collision Diagram (Data located on Exhibit #1)



2007 Traffic Crash Map (Data located on Exhibit #1)



2007 Collision Diagram (Data located on Exhibit #1)

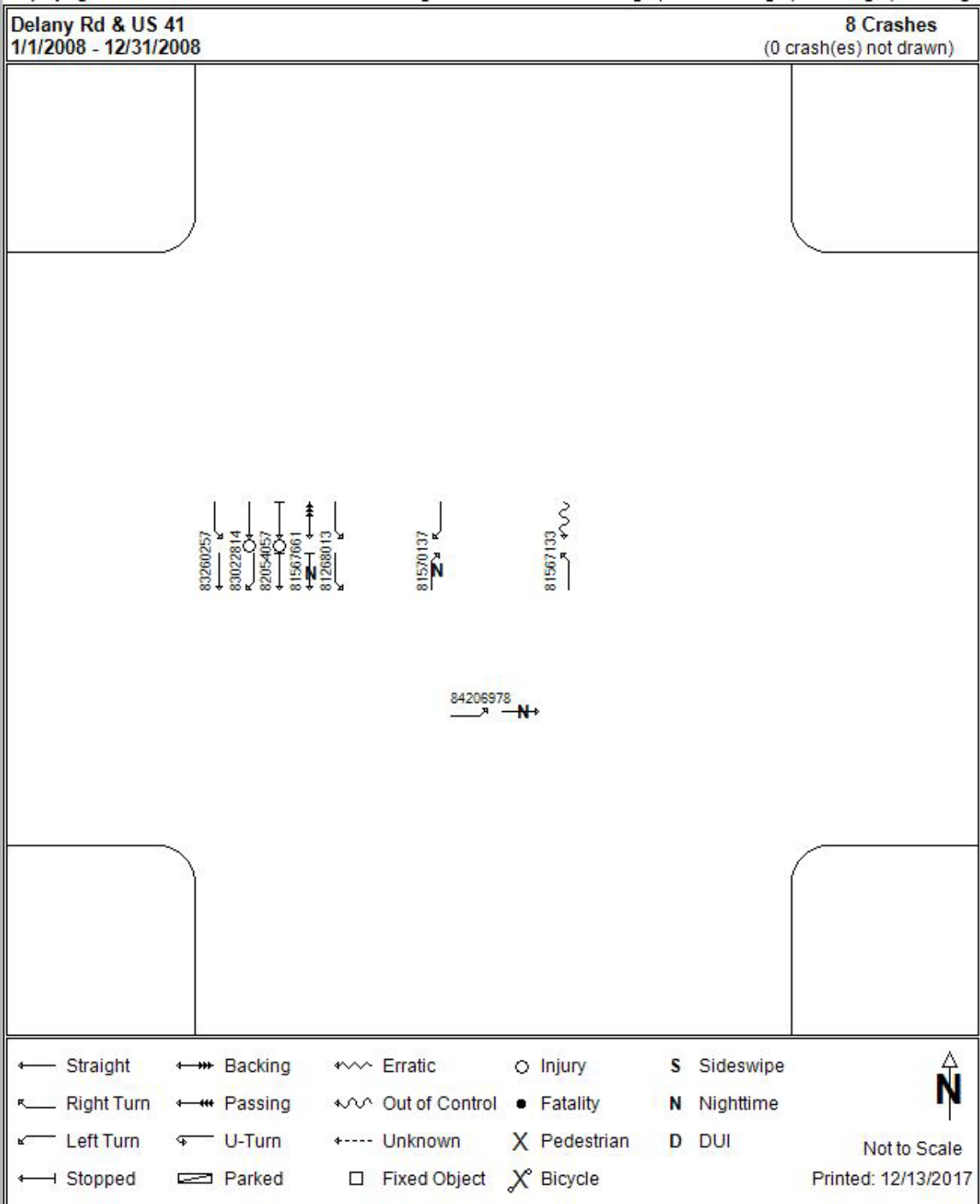


2008 Traffic Crash Map (Data located on Exhibit #1)





2008 Collision Diagram (Data located on Exhibit #1)



3 Year Traffic Crash Map 2006-2008 (Data Located on Exhibit #1)



### 3 Year Collision Diagram (Data Located on Exhibit #1)

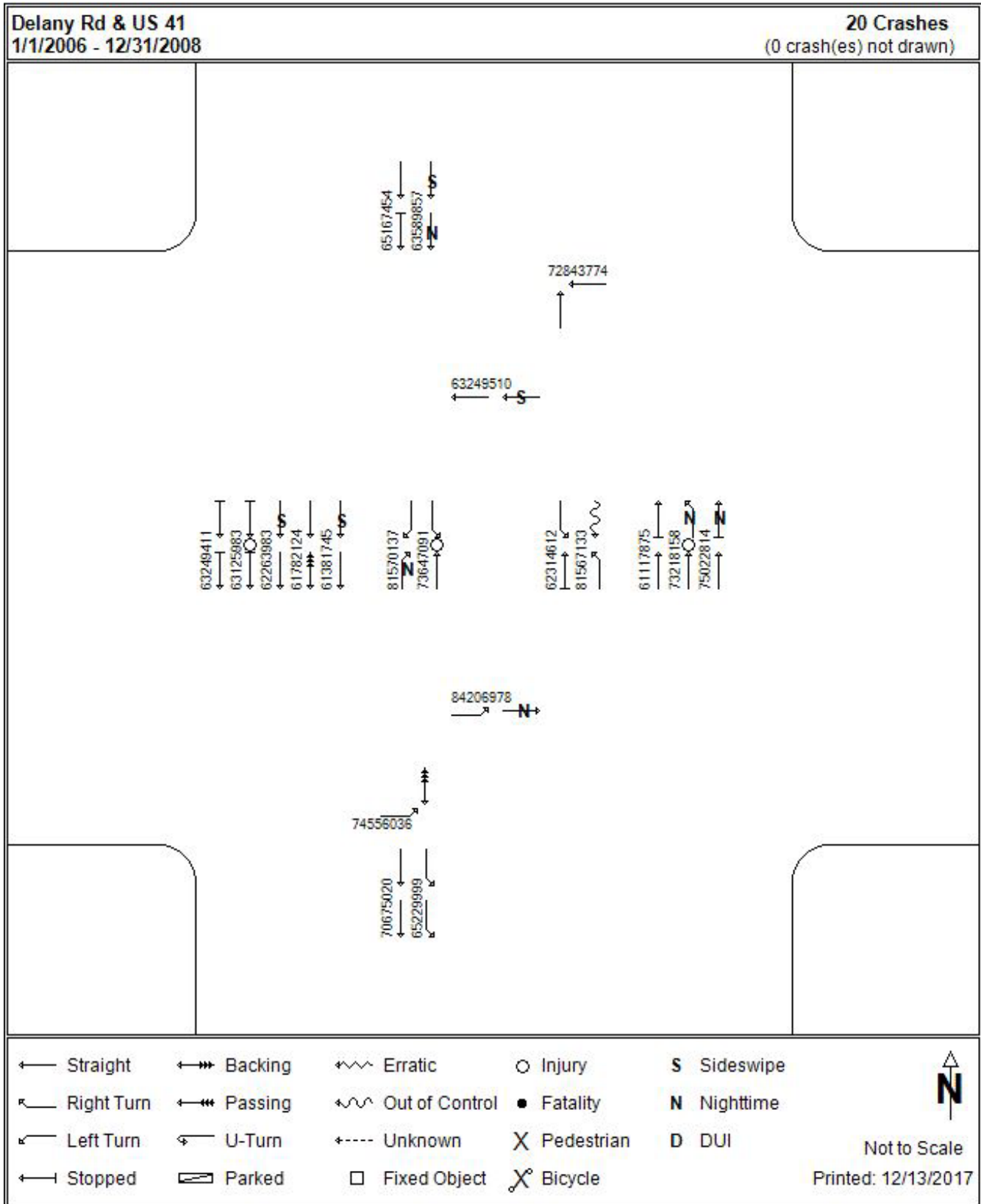
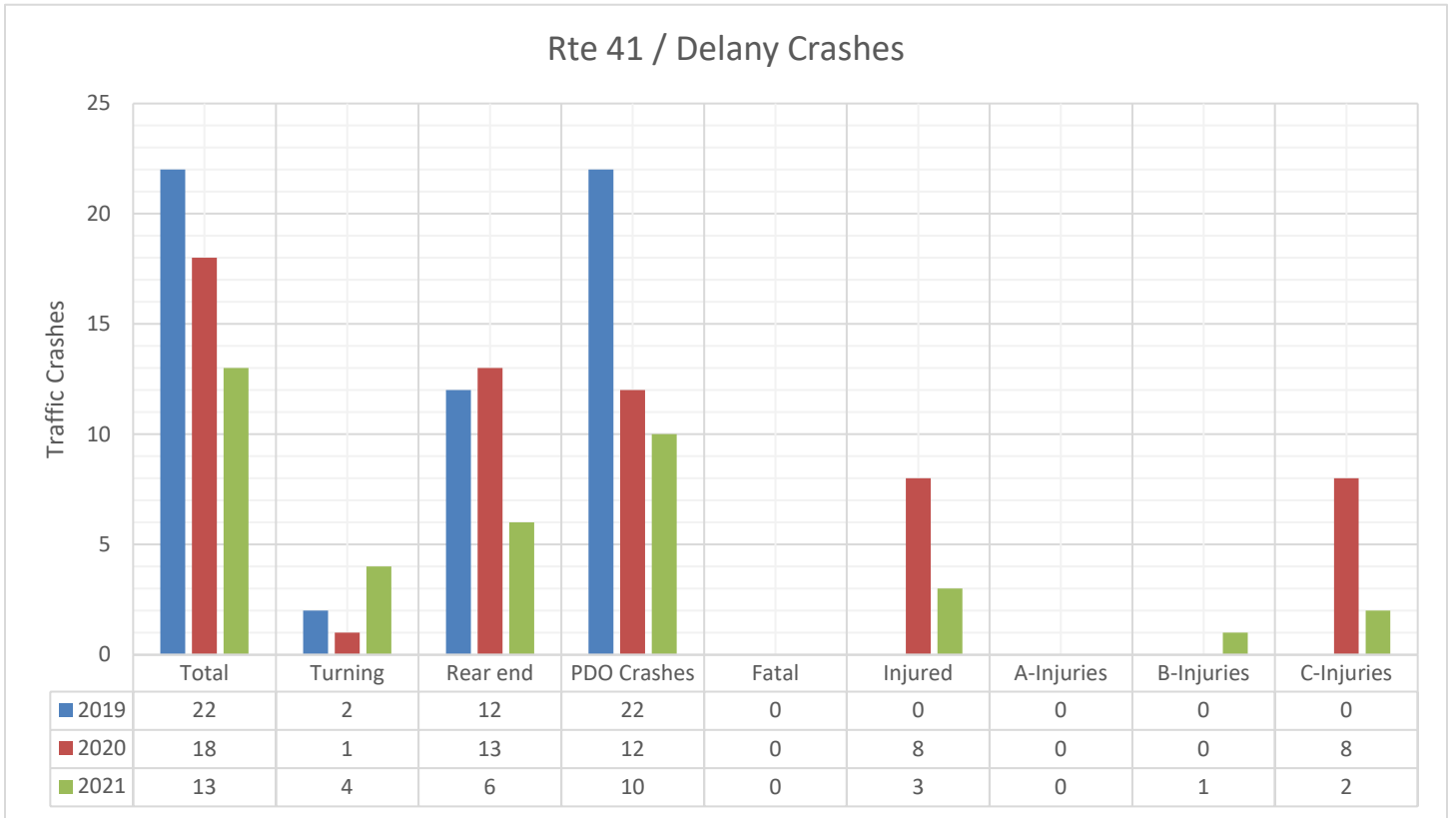
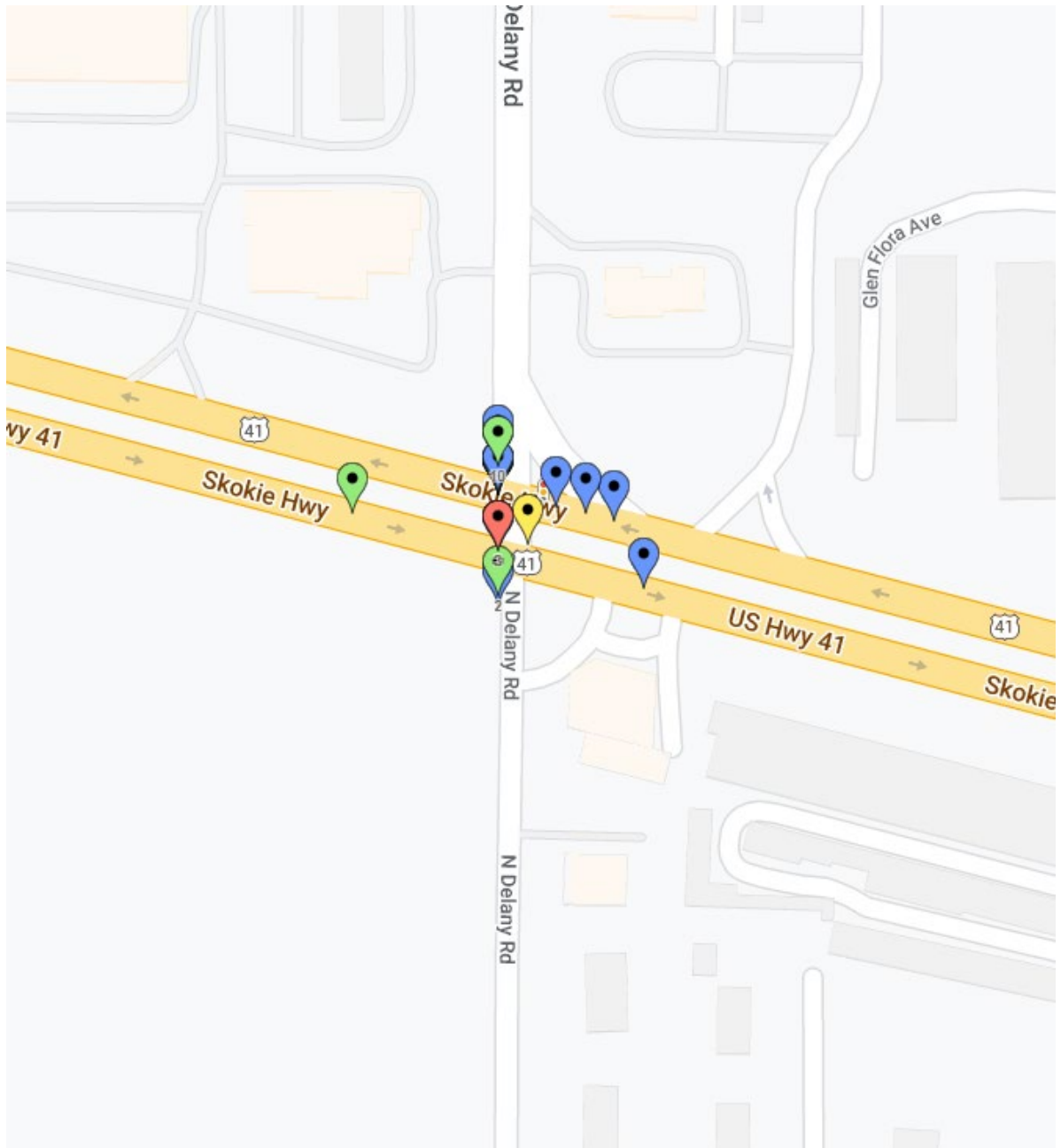


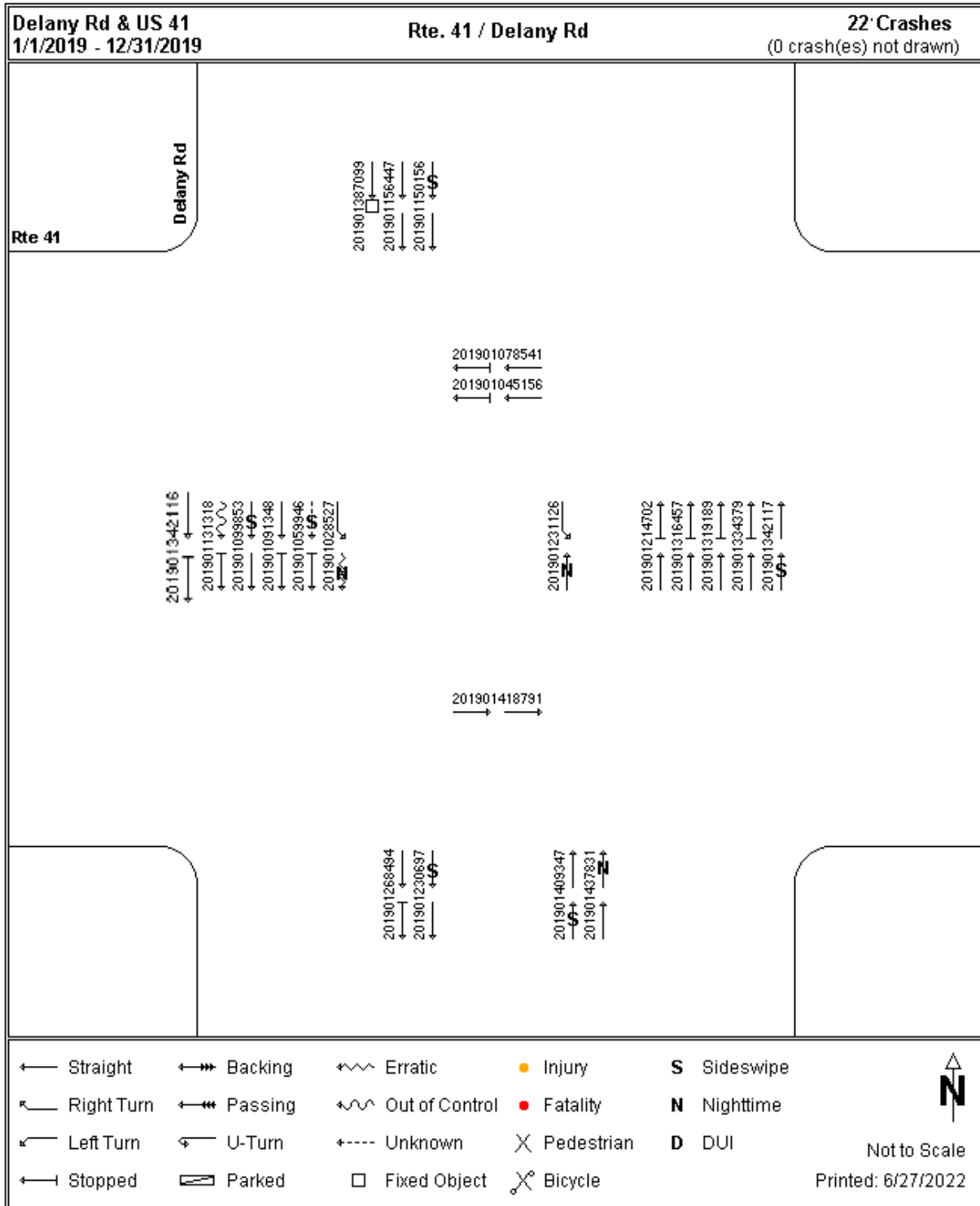
Exhibit 2



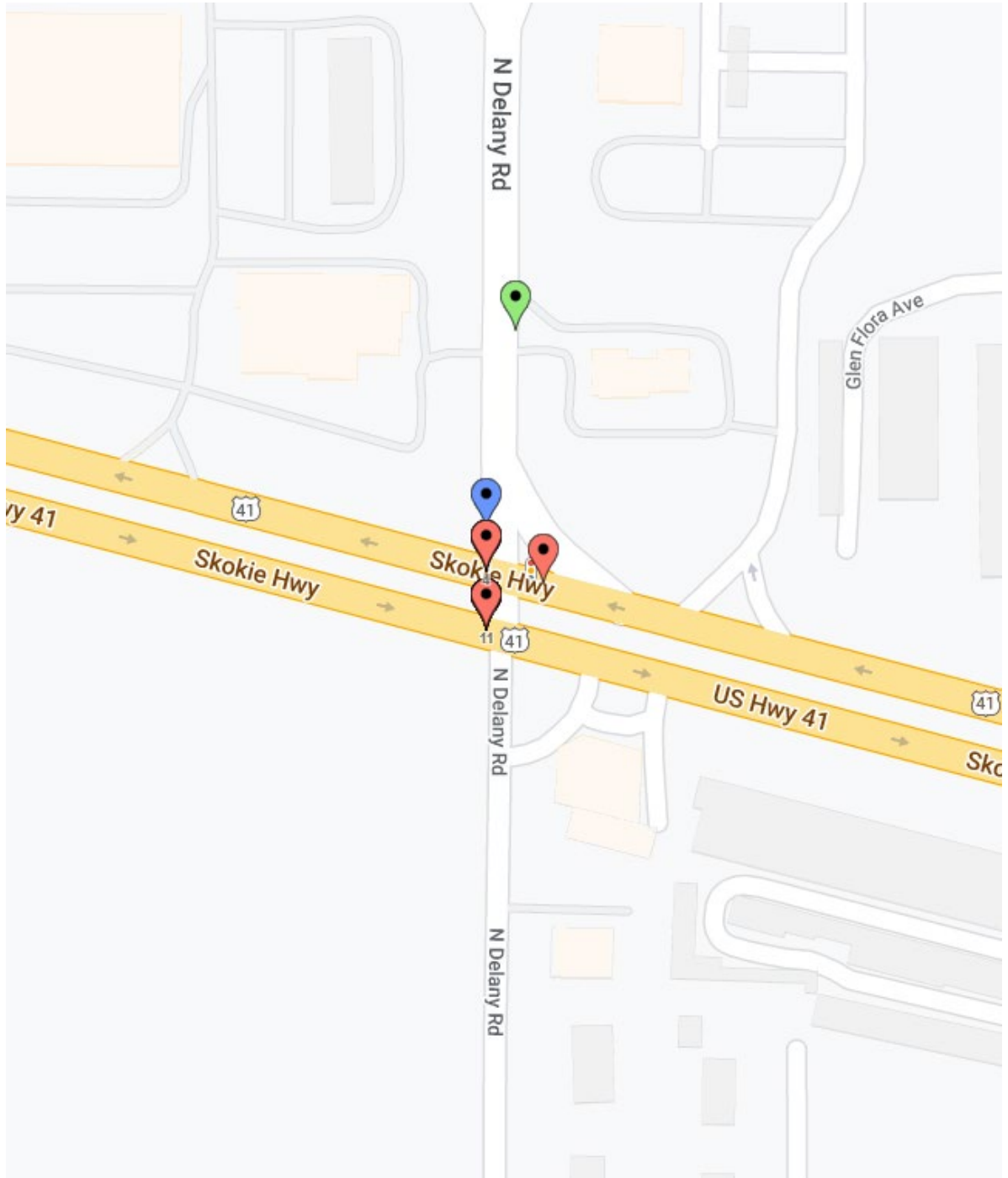
2019 Traffic Crash Map (Data located on Exhibit #2)



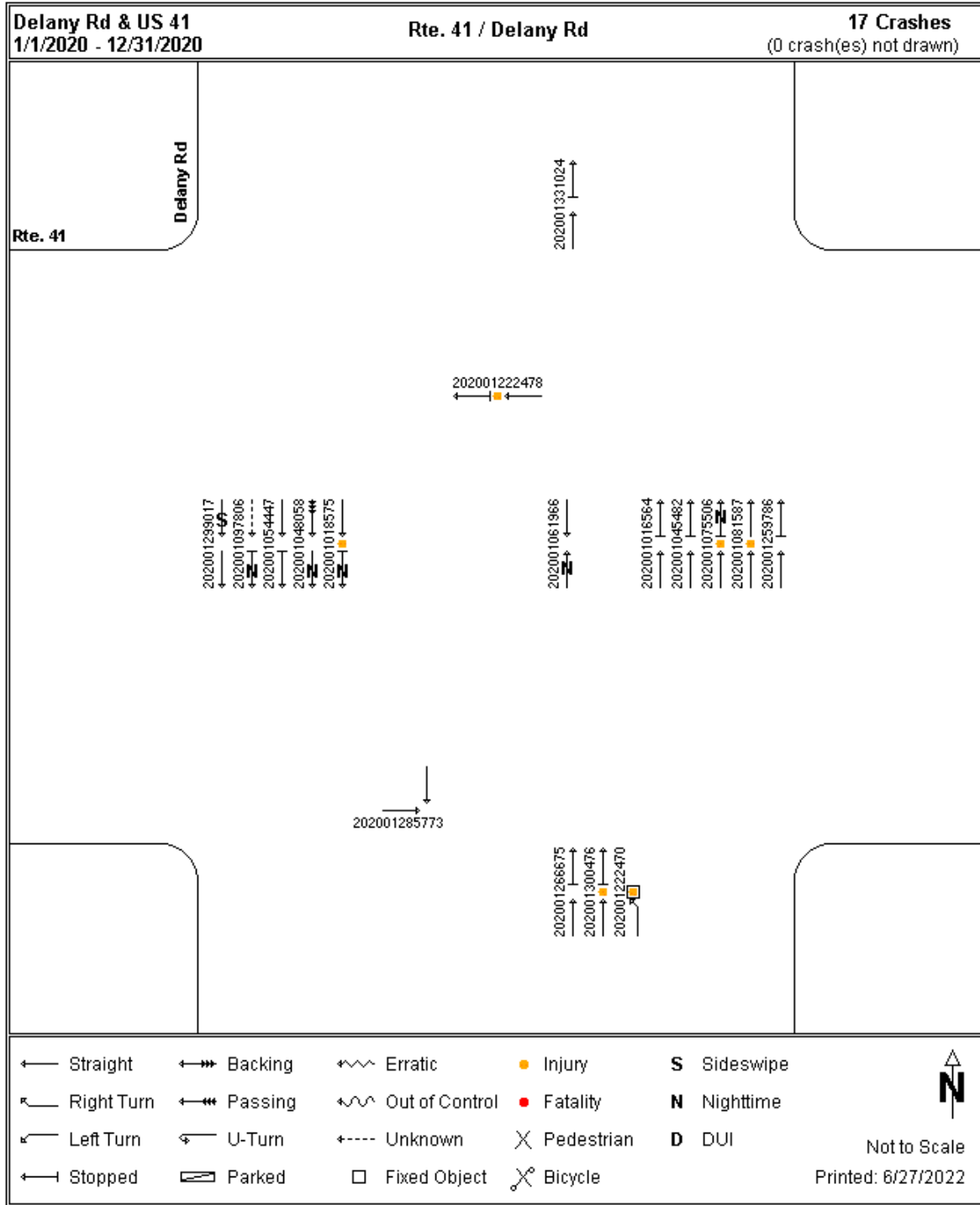
2019 Collision Diagram (Data located on Exhibit #2)



2020 Traffic Crash Map (Data located on Exhibit #2)

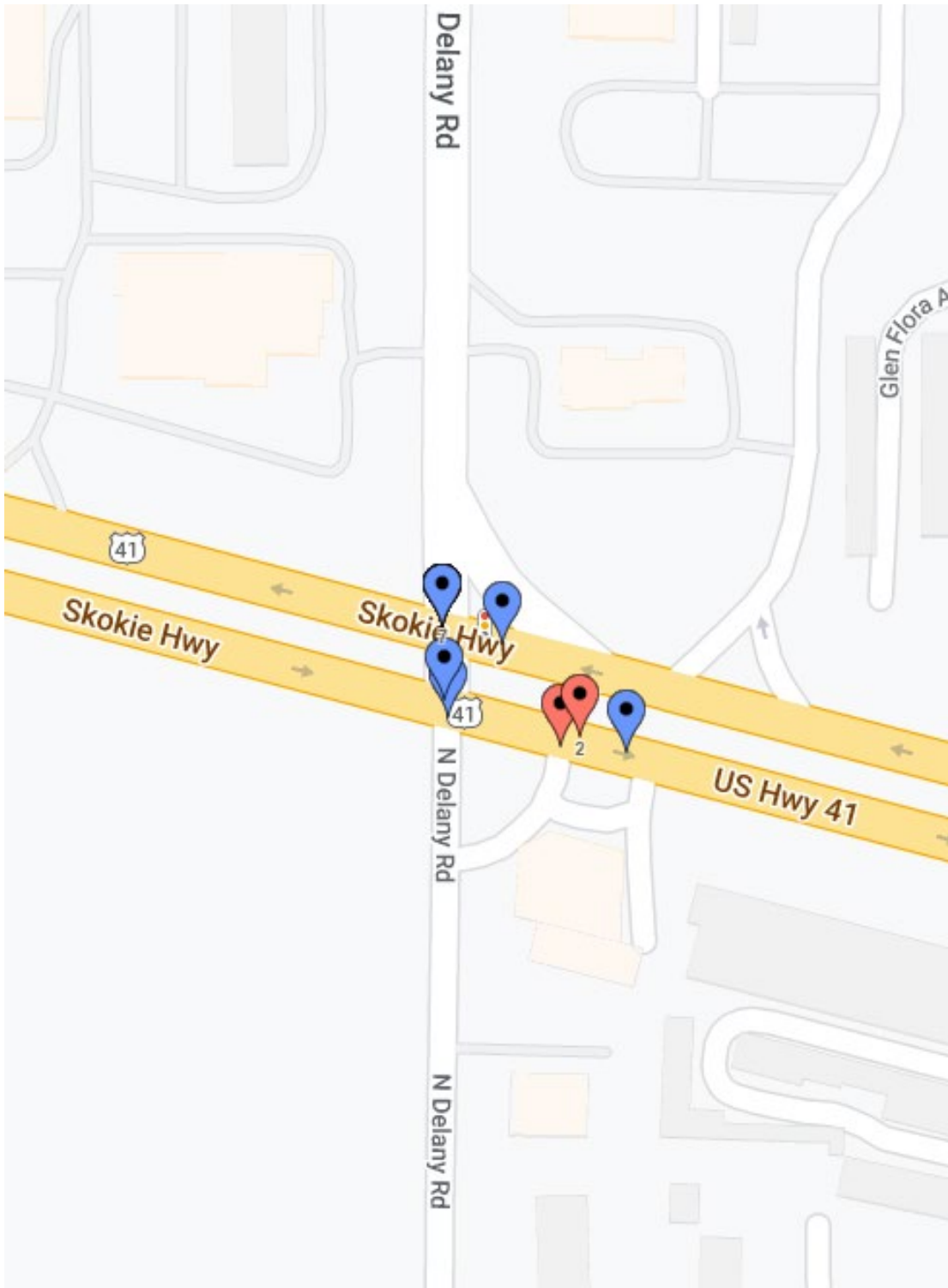


2020 Collision Diagram (Data located on Exhibit #2)

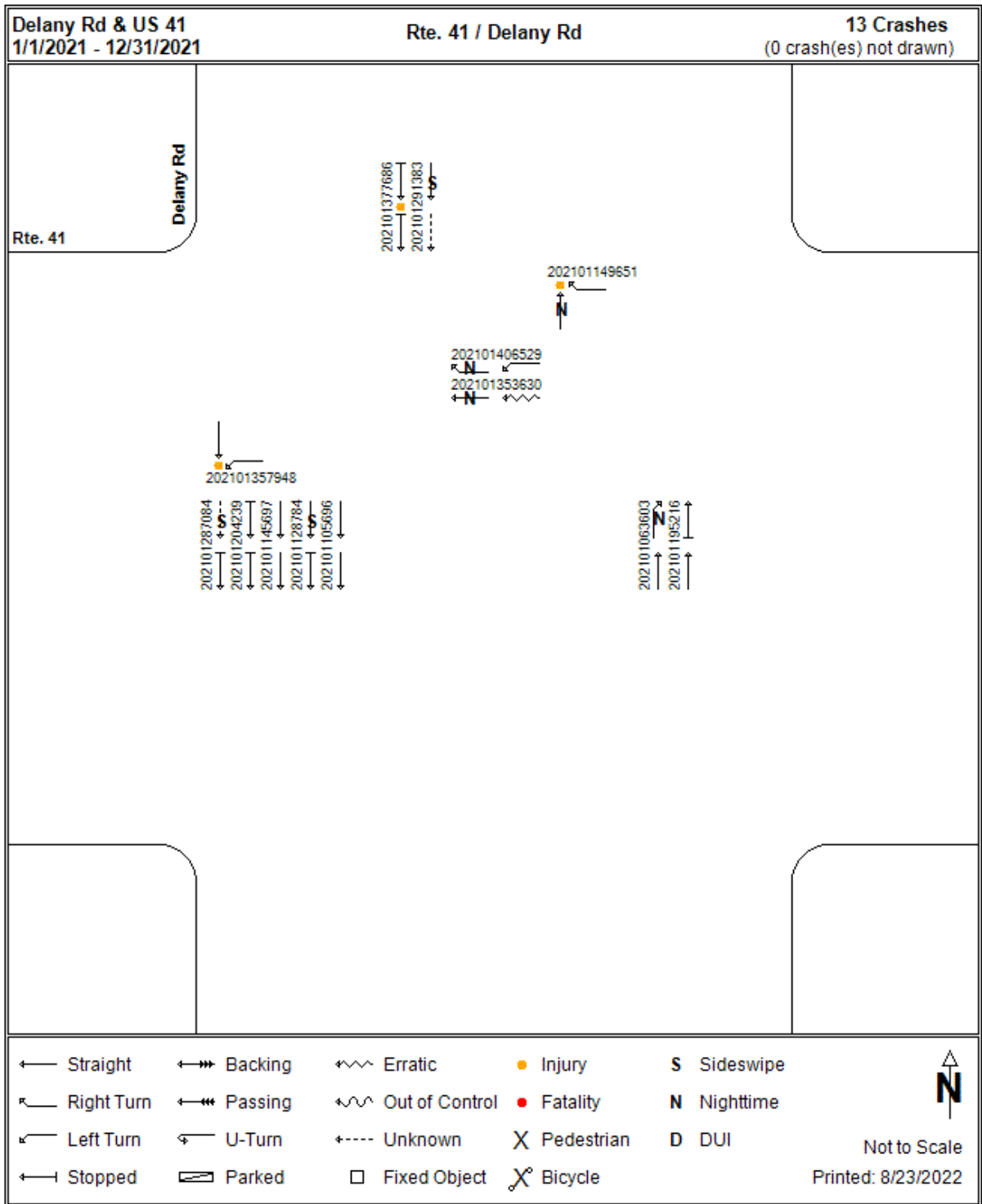




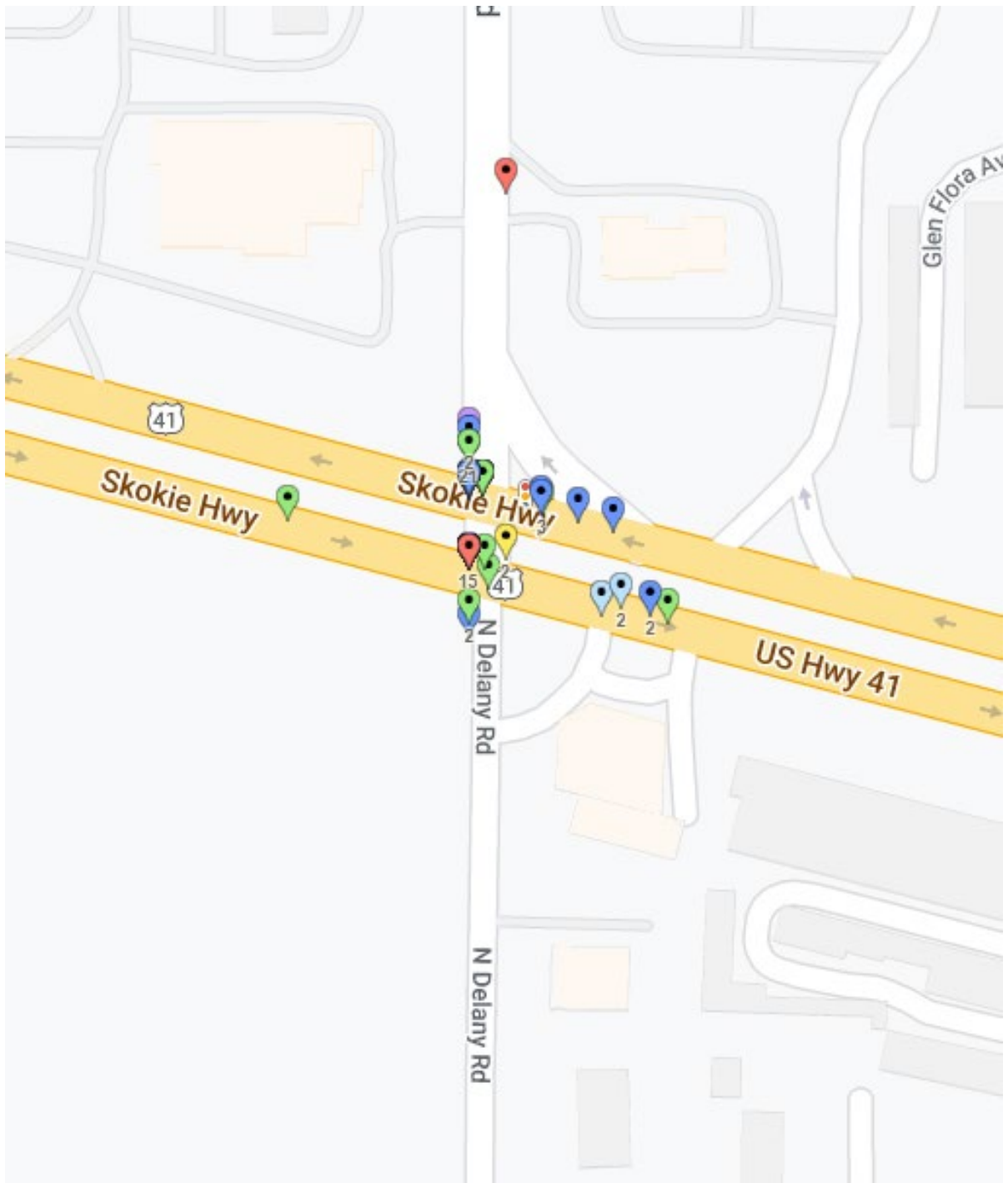
2021 Traffic Crash Map (Data located on Exhibit #2)



2021 Collision Diagram (Data located on Exhibit #2)



3 Year Traffic Crash Map 2019-2021 (Data Located on Exhibit #2)



### 3 Year Collision Diagram 2019-2021 (Data Located on Exhibit #2)

Displaying 32 of 53 Records

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### 3 Year Collision Diagram 2019-2021 (Data Located on Exhibit #2)

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### 3 Year Collision Diagram 2019-2021 (Data Located on Exhibit #2)

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## Crash Data Analysis

An examination of the last 3 years of traffic crash data shows the total crashes this period (17.7 avg.) were approximately 56% higher than the average of the previous period (11.3). While this is an average increase of roughly 6 crashes per year, turn related crashes dropped significantly along with crashes involving serious injuries.

Turn related crashes this period (2.3 avg.) were approximately 50% lower than the average of the previous period (4.7).

Beginning in July of 2015, Route 41 approaches underwent a redesign with the addition of protected left turns. This work was completed in February 2017 and prior to the intersection improvements, turn related crashes accounted for approximately 41% of all crashes. Turn related crashes now account for approximately 13%.

While total injuries this period (4 avg.) were approximately 71% higher than the average of the previous period (2.3), no serious type A injuries were reported. Additionally, 7 of the 10 minor type C injuries reported were rear-end collisions, 3 of which were related to one crash.

Rear end collisions (10.3 avg.) increased by approximately 182% compared to the previous period (3.7). This is an average increase of roughly 7 rear-end crashes per year. A majority of these rear-end crashes are due to speed and inattentive drivers (72% failure to reduce speed and 6% to distractions within the vehicle).

## Signal Timings

*Signal timings and other settings before and after RLR camera installation.*

The traffic signal timings are not under control of the Village of Gurnee. As such, we do not possess this information.

## Traffic Volumes

*Traffic volumes before and after RLR Camera System installation. The traffic volumes shall include both Average Daily and Peak Period traffic.*

The average daily traffic counts were obtained from the Lake County Division of Transportation and Illinois Department of Transportation at:

<http://lake.ms2soft.com>

<http://www.gettingaroundillinois.com/gai.htm?mt=aadt>.

The traffic counts below reflect the available 3-years prior and the current period traffic counts

### Previous Period (2006-2009)

ADT 38,200

### Current Period (2018-2020 - most recent available)

ADT 41,950

## Recommendations

*Recommendations to further reduce red light violations and severe crashes and to improve the operation of the intersection(s).*

The current period data (Exhibit #2) shows that the Intersection improvements at this location account for the drop in turn related crashes and a reduction in the number and seriousness of overall injuries, however, rear-end crashes have remained high.

Preliminarily, it appears that vehicle speed coupled with roadway unfamiliarity or driver inattentiveness are major factors in most of these crashes. An engineering study most likely will be needed, but in addition to continued local speed enforcement the following countermeasures might help reduce these crashes:

1. The addition of “BE PREPARED TO STOP” warning signs with flashing warning beacons that begin to flash a few seconds before the onset of the yellow and continue to flash throughout the red phase.
2. The inclusion of two speed radar signs at both the northbound and southbound US 41 approaches that would help bring awareness to approaching motorists and some voluntary compliance.

## Adjudication Process

*Provide a summary of adjudication experience and results.*

The Village of Gurnee administrative adjudication system does not segregate enforcement approaches. As such, we are unable to provide data specific to each intersection.

During the examined time period we conducted 700 administrative hearings related to photo enforcement citations issued system-wide. Of those hearings, 503 of those were found to be Liable including those who failed to appear at their scheduled hearing.



## Financial Report

The total number of citations issued at this intersection from January 1, 2019 through December 31, 2021 was 13,004. The total of fines collected was \$1,000,550.07. When you subtract the lease payments, bank and various fees for the system during the same time period, the net revenue collected was approximately \$708,360.63.