# 2021 CITY OF CHICAGO AUTOMATED ENFORCEMENT PROGRAM

Parking Entrance

## ANNUAL REPORT

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### **Background: Red Light Camera Enforcement**

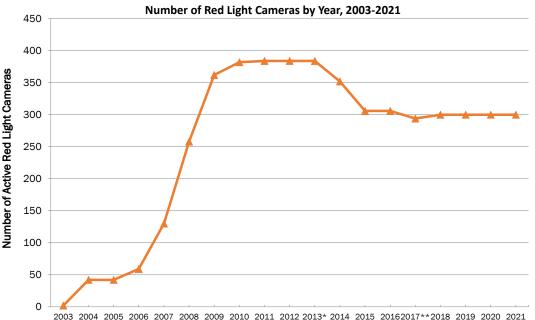
On July 9, 2003, the City of Chicago enacted an ordinance authorizing the use of automated red light cameras at signalized intersections throughout the City. The Chicago Department of Transportation (CDOT) managed the program from 2003 to 2006, when responsibility shifted to the Office of Emergency Management and Communications (OEMC). Program management responsibilities returned to CDOT in January 2010, where they remain today.

In 2003, the City of Chicago contracted with Redflex Traffic Systems, Inc. to install, test, operate, and maintain all hardware, software, and communications equipment to enable a city-wide, automated, red light camera enforcement program. The first automated red light enforcement cameras were installed and activated in November 2003 at intersections

with known safety issues. By 2011, the program had grown to 384 automated red light cameras operating at 190 intersections.

In February 2013, the City issued an RFP to continue to operate and maintain the automated red light camera enforcement program. In October 2013, the City awarded a five-year contract to continue the existing program to Xerox State and Local Solutions, Inc. (now known as Conduent). As required under the contract, Conduent replaced all of the existing red light camera hardware and software with modern, more reliable technology. In October 2018 and 2020, the contract was extended for two years, utilizing contract provisions that allowed for up to three, two-year extensions.

CDOT conducts an annual review of safety data at all red light camera locations. Removal of automated enforcement at certain intersections is considered if evaluation indicates that camera enforcement did not result in safety improvements, such as a



substantial reduction in the number of right-angle ("T-bone") crashes. While all crashes are potentially hazardous, red light cameras are designed and deployed to reduce right-angle crashes because of the extreme danger to those involved in these types of crashes, which studies show are the most likely to result in serious injury or fatality.\*

Between 2013 and 2016, CDOT removed a total of 78 cameras from 39 intersections based on the review of crash data. Currently, the City has 300 relight cameras at 149 intersections. In 2016, CDOT commissioned Northwestern University to conduct a comprehensive, independent study to assess the traffic safety impacts of red light camera enforcement in Chicago, help the City maximize the safety benefits of the system, and support continual improvement of the program. The academic team reviewed crash and violation data provided by the Illinois Department of Transportation and the City of Chicago.\*\*

<sup>1 \*</sup> Safety Evaluation of Red-Light Cameras - Executive Summary, Federal Highway Administration, 2005. \*\* 2020 IDOT crash data was not available at the time this report was developed.

The Northwestern study, "Chicago Red Light Camera Enforcement: Best Practices & Program Road Map," was released in early 2017 and is available on the CDOT website, https://www.chicago.gov/ city/en/depts/cdot/supp\_info/red-light\_cameraenforcement. html. Following the release of this study, CDOT extended the enforcement threshold or "grace period" for issuing a violation from 0.1 seconds to 0.3 seconds after the light turns red. Extending the enforcement threshold was a key recommendation of the study, which concluded that this change would maintain the safety benefits of the program while ensuring fairness. In addition, CDOT removed a total of 16 cameras from eight intersections in 2017, and began relocating the cameras to new intersections based on the methodologies presented in the study.

On August 21, 2017, the City of Chicago entered into a settlement of two class action lawsuits regarding supplemental violation notices. The settlement applies only to specific automated enforcement violations issued between March 23, 2010 and May 17, 2015. Additional information can be found on the Department of Finance website at: <u>https://www.cityofchicago.org/city/en/</u> <u>sites/settlement/home.html</u>.

### Background: Speed Camera Enforcement

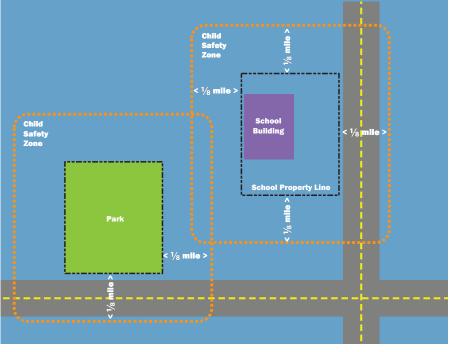
On February 6, 2012, the State of Illinois granted authority to the City of Chicago to implement automated speed enforcement in Child Safety Zones, which are areas around schools and parks. CDOT identified 1,495 qualifying Child Safety Zones within the City limits. (See inset for more information.)

On March 14, 2012, the Chicago City Council enacted an ordinance authorizing CDOT to manage a program of speed enforcement cameras. The ordinance requires that no more than 20 percent of all eligible Child Safety Zones be equipped with an automated speed enforcement camera. The ordinance further requires that the program be spread equitably across the city.

The ordinance directs the Commissioner of CDOT to divide the city

#### What is a Child Safety Zone?

A Child Safety Zone is defined by state law as an area located within one-eighth of a mile from the nearest property line of any public or private elementary or secondary school or area operated by a park district and used for recreational purposes. The area also extends to the nearest intersection.



into six geographical regions. Each region must have at least 10 percent of the total number of camera-enforced Child Safety Zones in the city. To prioritize locations for speed camera enforcement, the City uses a model that ranks safety zones based on a crash data, including total number of nearby crashes, crashes involving a pedestrian or bicyclist, speed related crashes, serious/fatal crashes, crashes involving a person 18 or under, and the number of children and youth living nearby (using U.S. Census data). In addition to ranking the zones by the number of key crash types and youth population, locations for automated speed enforcement cameras are evaluated and determined by speed studies, engineering factors, and the need for geographic distribution to

ensure equity and efficiency.

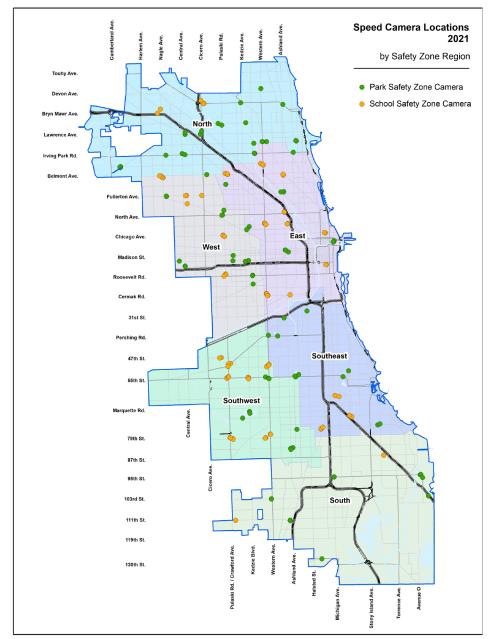
The operation of the automated speed enforcement system and the issuance of citations for violations is restricted to the following times and conditions per the ordinance:

- If the Child Safety Zone is a school zone, then enforcement will only be on school days (including summer school), no earlier than 7:00 a.m. and no later than 7:00 p.m., Monday through Friday. For school zones that have a 20 mile-perhour (mph) speed limit, the speeding violation for that speed limit is only enforced during school hours, i.e. between 7:00 a.m. and 4:00 p.m. In addition, a child must be present for a violation to be issued at the 20 mph school zone speed limit. Outside of school hours or without a child present, the regular posted speed limit (typically 30 mph in Chicago) is enforced.
- If the Child Safety Zone is a **park zone**, then enforcement will only be during the time the park or facility is open to the public or other patrons (typically, 6:00 AM to 11:00 PM).

See Appendix B for more information on on speed cameras work.

In June 2013, the City awarded a contract to American Traffic Solutions, Inc. (now Verra Mobility) to install, test, operate, and maintain all hardware, software, and communications equipment to enable a city-wide, automated, speed enforcement program, as authorized by city ordinance and state law. The first automated speed enforcement camera in the City of Chicago began enforcing on August 26, 2013. After adding one camera in 2021 at MLK Park, there are now 162 automated speed enforcement cameras operating in 69 Child Safety Zones as of December 31, 2021.

For both the red light and speed camera programs, CDOT coordinates its efforts with the Chicago Department of Finance, which issues violations and collects the fines on behalf of the City. For the speed camera program, CDOT is in constant communication with relevant entities, including the Chicago Park District, Chicago Public Schools, and private schools to ensure that the automated speed enforcement cameras are operating only



during school and park hours and as stipulated in state law and city ordinance.

In addition to weekly calibrations of the speed enforcement

cameras, CDOT, in collaboration with its vendor, maintains appropriate signage and "SAFETY ZONE" pavement markings in Child Safety Zones. Each safety zone enforced for speed has on average 23 warning signs indicating that a camera is in operation. Safety zone signage and markings follow standards and guidance found in the Federal Highway Administration's "Manual on Uniform Traffic Control Devices" (MUTCD) and the National Highway Transportation Safety Administration's "Speed Enforcement Camera Systems: Operational Guidelines."

All automated enforcement violations can be contested by mail or in person with the city's Department of Administrative Hearings, if a motorist believes a violation was issued in error. Options and steps for contesting tickets are printed on each violation notice.

### Vendor 'Service Level Agreements'

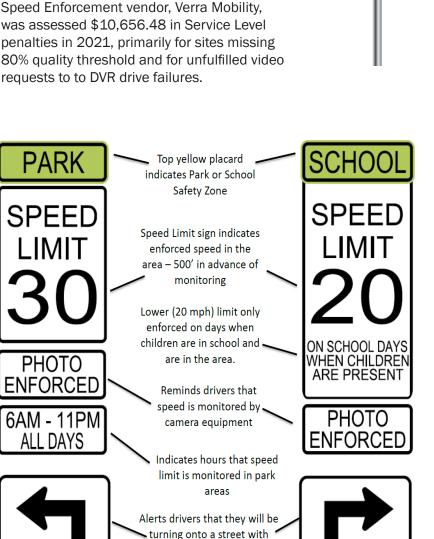
The City's two automated enforcement vendors, Conduent State and Local Solutions Inc. and Verra Mobility, Inc., are contractually required to meet specific performance criteria. These criteria are referred to as service level agreements (SLA's), and are described in detail in the vendors' contracts. The performance criteria set measurable standards that must be met by each vendor monthly, including:

- A maximum amount of time per week that cameras may be non-functioning, for maintenance or technical reasons.
- A total camera system uptime of 95 percent.
- Image quality standards, for both still photography and video.
- A maximum allowable percentage of errors in identification of valid violations.
- Response timelines for maintenance and emergencies. •

CDOT regularly monitors vendor performance, and imposes monetary penalties whenever performance falls below the set requirements. Performance issues that resulted in SLA penalties in 2021 included:

Red Light Camera SLAs - The SLA penalties assessed in 2021 inlcuded substantial penalties for backend server outages and for loss of data due to failed hard drives. The city assessed Conduent monetary penalties in the amount of \$14,398.84.

Speed Camera SLAs - The Automated Speed Enforcement vendor, Verra Mobility, was assessed \$10,656.48 in Service Level penalties in 2021, primarily for sites missing 80% quality threshold and for unfulfilled video requests to to DVR drive failures.



SPEED LIMIT

**PHOTO** 

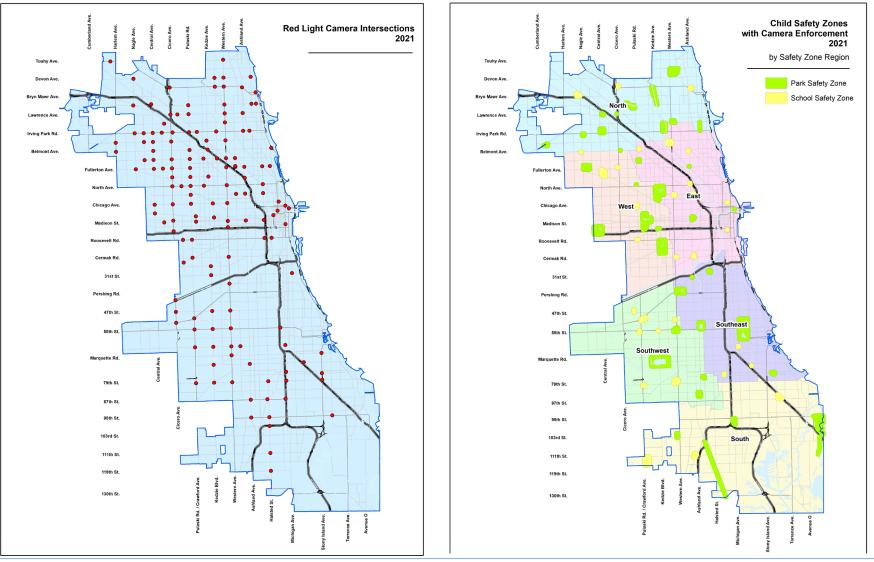
**ENFORCED** 

AHEAD

photo enforcement

### **Automated Enforcement in 2021**

Throughout 2021, the number of red light cameras remained at 300, located at 149 intersections. One new speed camera was installed at Dr. Martin Luther King Jr. Park in the 17<sup>th</sup> Ward, making for a total of 162 speed cameras at 69 Child Safety Zones. Most School Safety Zone cameras remained off from January to April 2021 due to school closures aimed at limiting the spread of COVID. In early 2021, the City lowered the threshold for \$35 citations issued by speed cameras from 10 mph over the speed limit to 6-10 mph over the speed limit. This operational change, allowed under existing statute, was intended to help combat an increase in fatal and serious-injury crashes, CDOT remains committed to ongoing analysis and evaluation, and to data-driven decsion-making to ensure the effectiveness, equity, and transparency of the Red Light and Speed Camera Enforcement programs. Visit the CDOT Automated Enforecement website for more information.



### **Safety Benefits**

Traffic safety data continue to show that the automated speed and red light enforcement programs are improving safety on Chicago streets. Traffic crash data for 2019\* compiled by the Illinois Department of Transportation (IDOT) indicate here were 501 fewer angle (or T-bone) crashes at the 149 intersections with red light cameras -- a decrease of 66 percent. There were 2,423 fewer total crashes at these intersections -- a decrease of 57 percent, as well as 688 fewer rear-end crashes -- also a decrease of 57 percent. See statistics here: https://tinyurl.com/35a4epwn.

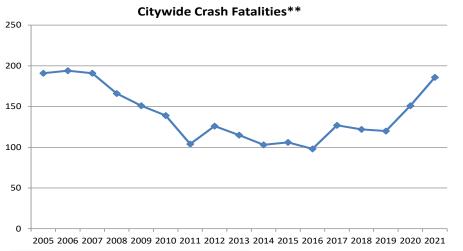
2021 speed data show that average motor vehicle speeds near speed cameras remain lower than when the cameras were first installed. Program-wide, when comparing the first two weeks following installation to the most recent two weeks that cameras were active, average speeds decreased by 14.4 percent, from 25.29 mph to 21.65 mph.

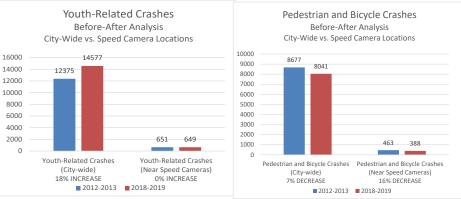
In 2021 80.3 percent of drivers who were issued a ticket for speeding in a school zone and 58.9 percent of drivers that were issued a ticket for speeding in a park zone did not receive a second ticket during the year, indicating they changed their driving behavior.

In 2018-19, crashes resulting in a fatality or injury increased by only two percent near speed cameras, compared to a twenty-one percent increase city-wide. Visit the CDOT <u>Children's Safety Zone Program</u> <u>website</u> for more information.

In 2017, Northwestern University Transportation Center carried out a comprehensive, independent study of Chicago's RLC program. The study concluded that the program provides significant safety benefits. The study report can be found on CDOT's <u>Red Light Camera Program</u> website.

Preliminary results from an independent study from the University of Illinois at Chicago, "Analyzing the Equity and Efficacy of Chicago's Automated Camera Enforcement Program," found that the deployment of cameras reduced the expected number of fatal and severe injury crashes by 15%.







6 \* 2020 IDOT crash data was not available at the time this report was developed.

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\*\* CPD crash data, reviewed by CDOT Fatal Crash Coordinating Committee. Excludes expressway system crashes.

As a Vision Zero city, Chicago is fully committed to eliminating roadway deaths and serious injuries. Automated enforcement is an important tool for achieving this goal. The effectiveness of automated enforcement is well established and accepted by jurisdictions around the country. National Highway Traffic Safety Administration analysis has shown that automated enforcement reduces the number of crashes near red-light and speed cameras.<sup>1</sup> A 2017 study from the Insurance Institute for Highway Safety found that red light cameras reduced the fatal red light running crash rate of large cities by 21 percent and the rate of all types of fatal crashes at signalized intersections by 14 percent.<sup>2</sup> The Governors Highway Safety Association's 2018-19 Policies and Priorities report "urges states to utilize automated enforcement to address the problem of red light running and speeding."<sup>3</sup>

In response to these and other studies, a majority of transportation and law enforcement agencies recognize the potential of automated enforcement to reduce traffic crashes, and crash-related injuries and fatalities. These include: FHWA, NHTSA, NTSB, the National Association of City Transportation Officials (NACTO), the CDC, the American Association of State Highway and Transportation Officials (AASHTO) Board, AASHTO's Standing Committee on Highway Traffic Safety (SCOHTS), and the International Association of Chiefs of Police (IACP) (Eccles et al., 2012; NTSB, 2017).

Automated traffic enforcement technology, by reducing instances of speeding, red-light running, and other dangerous driving behaviors, helps to make our roads safer. In addition, it can free up law enforcement to focus on other types of crime. When properly deployed, automated enforcement can help achieve equity goals. Finally, automated enforcement technologies help cities collect accurate and reliable information on travel behavior and the transportation system – including travel speeds, ADT, the number

of bicyclists and pedestrians, roadway conditions, and incidents - which helps transportation planners and engineers improve the safety, efficiency, and reliability of the transportation system. Since the beginning of the COVID pandemic, CDOT has used traffic count data from the automated enforcement cameras to better understand and track changes in driving patterns, driver behaviors, and traffic volumes citywide.

### Speed Change Analysis: Change in Average Speed since Installation

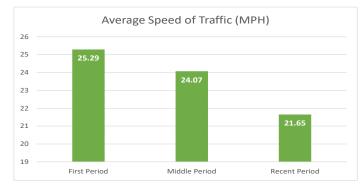
The following table illustrates the change in the average speed of all recorded traffic during enforcement hours at all speed camera locations that have been active for at least six months prior to December 31st, 2021.

Average speed is reported for three two-week time-periods:

- First Period the initial two weeks of enforcement.
- Middle Period six-months after the Initial Period.
- **Recent Period** the most recent two weeks the camera was operational prior to December 31st, 2021

Program wide, when comparing the first two weeks following cameras beginning to issue citations and the most recent two weeks cameras were active, the average speed of all recorded traffic volume recorded decreased from 25.29 MPH to 21.65 MPH.

This equates to a 14.4 percent decrease and indicates the program is successful at these locations.



<sup>&</sup>lt;sup>1</sup> NHTSA, "System Analysis of Automated Speed Enforcement Implementation" (2016), "Automated Enforcement: A Compendium of Worldwide Evaluations of Results" (2007), and "Red Light Camera Systems Operational Guidelines" (2005).

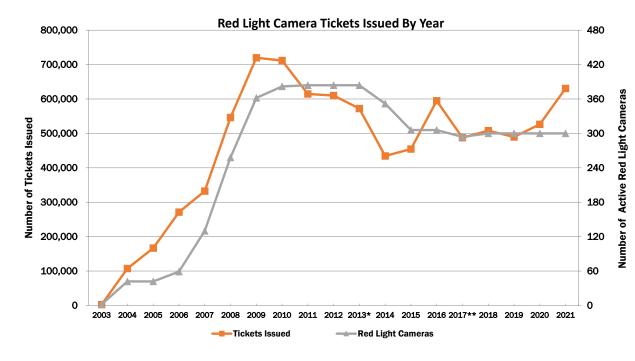
<sup>&</sup>lt;sup>2</sup> https://www.iihs.org/topics/red-light-running, https://www.iihs.org/topics/bibliography/ref/2121, and\_ https://www.iihs.org/news/detail/new-guidelines-for-automated-enforcement-programs-emphasize-safety-amid-rise-in-red-light-running-crash-deaths.

<sup>&</sup>lt;sup>3</sup> <u>https://www.ghsa.org/sites/default/files/2018-09/policies18.pdf</u>

### **Red Light Cameras – 2021 Statistics**

2021 RLC Program Data	
Active Cameras (as of 12/31/2021)	300
# Events Captured <sup>1</sup>	2,065,350
# Violations Determined <sup>2</sup>	677,563
# Tickets Issued <sup>3</sup>	630,759
# DOAH Hearing Requested	18,834
# Tickets Overturned	3,535
Average # Tickets issued Per Day	1,728
Average # Tickets issued per Week	12,130
Average # Tickets issued per Month	52,563
Average # Tickets issued per Camera <sup>4</sup>	2,103
Average # Tickets issued per Camera per Day	5.8
Dollar Value of Tickets Issued	\$63,075,900

Tickets Issued by Place of Residence Ticket Payment Method Non-Chicago 253,876 40% Chicago 376,880 60% Chicago 376,880 60% Ticket Payment Method Web 70% Chicago 7



\*Data as of 01/31/2021. Data includes any ticket issued in error.

- <sup>1</sup>Number of Events Captured is the number of times the camera radar detects a potential violation and captures two pictures and a 12-second video of the potential violator.
- <sup>2</sup> Number of Violations Determined is the number of captured events that have been validated as an actual violation after multiple human reviews.
- <sup>3</sup>Number of Tickets Issued is the actual number of tickets that are sent out in the mail. Tickets cannot be issued for violations in which the license plate number cannot be matched to an address. Provided by the Chicago Department of Finance as of 01/31/2022.
- <sup>4</sup> Since the beginning of the COVID pandemic in early 2020 there has been an increase in the number of red light running violations. In 2021 the number of violations per camera was at an all time high.

8 \* Red light camera vendor transition and weather conditions resulted in decreased violations

\*\* Extension of enforcement threshold to 0.3 seconds after light turns red resulted in decreased violations

### **Speed Cameras – 2021 Statistics**

2021 ASE Program Data	
Active Cameras (as of 12/31/2021)	162
# Events Captured <sup>1</sup>	8,966,688
# Violations Determined (including warnings) <sup>2</sup>	3,020,433
# of Violations Issued as 30-Day Warning <sup>3</sup>	174,697
# Tickets Issued <sup>4</sup>	1,950,620
# Zero Fine Tickets Issued	895,116
# DOAH Hearing Requested	15,107
# Tickets Overturned	2,373
Average # Tickets issued per Day⁵	5,344
Average # Tickets issued per Week	37,512
Average # Tickets issued per Month	162,552
Average # Tickets issued per Camera <sup>5</sup>	12,041
Average # Tickets issued with Fines per Camera per $Day^{\scriptscriptstyle 5}$	33.0
Park Zone-Zero Fine Violation	738,526
Park Zone-6-10mph Ticket	1,308,877
Park Zone-11+mph Ticket	266,088
School Zone-Zero Fine Violation	156,590
School Zone-6-10mph Ticket - 20mph Child Present	84,531
School Zone-11+ mph Ticket - 20mph Child Present	28,513
School Zone-6-10mph Ticket - Posted speed limit	220,010
School Zone-11+ mph Ticket - Posted speed limit	42,601
Dollar Value of Tickets Issued	\$90,189,830

\*Data as of 01/31/2022. Data includes any ticket issued in error.

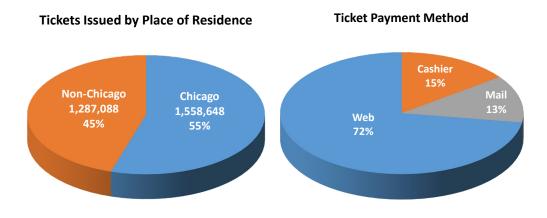
\*\*The total number of tickets issued is not equal to the cumulative total of park/school zone tickets. This is due to the timing of generating reports by the Chicago Department of Finance. <sup>1</sup>Number of Events Captured is the number of times the camera radar detects a potential violation and captures two pictures and a 6-second video of the potential violator.

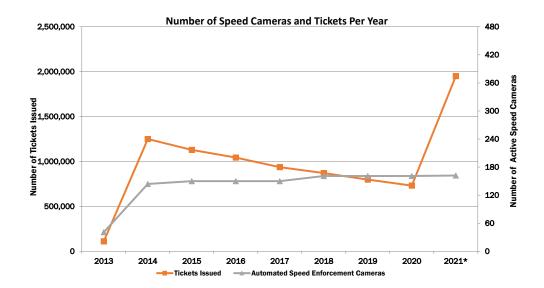
<sup>2</sup>Number of Violations Determined is the number of captured events that have been validated as an actual violation after multiple human reviews.

<sup>3</sup>These warnings are sent in the mail, however, unlike the zero-fine warnings (which occur after the 30-day warning period) violations issued as 30-day warnings are not considered a subset of tickets issued. See Appendix B for more information.

<sup>4</sup>Number of Tickets Issued is the actual number of tickets that are sent out in the mail, including zero-fine violations. Tickets cannot be issued for violations in which the license plate number cannot be matched to an address. Provided by the Chicago Department of Finance as of 01/31/2022.

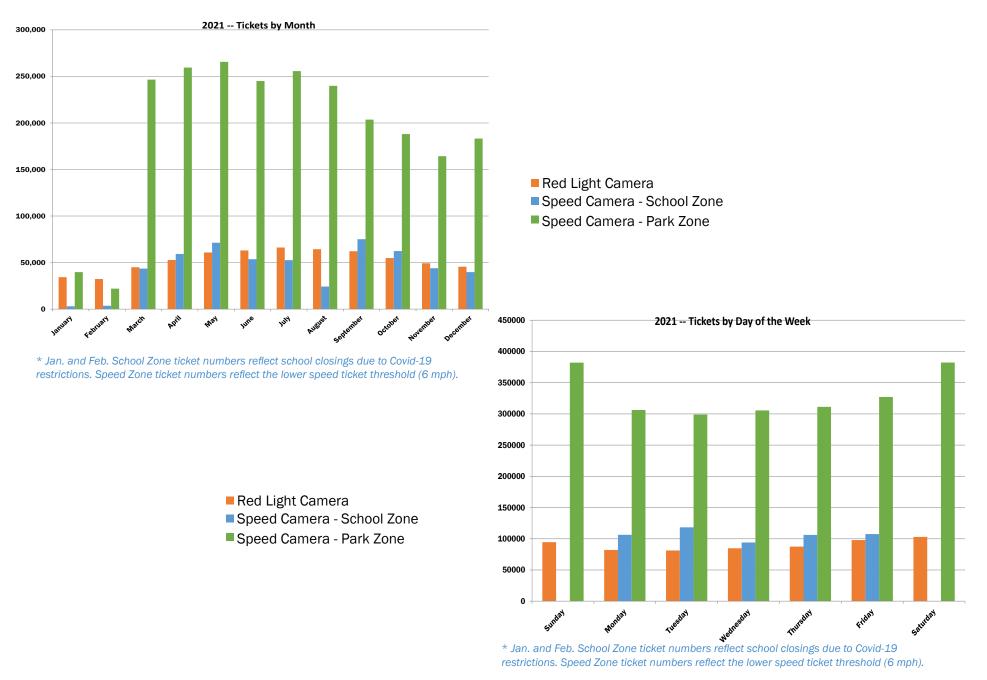
<sup>5</sup>These averages are calculated by dividing the combined totals from school and park cameras by 365 days; however school cameras do not operate 365 days a year.





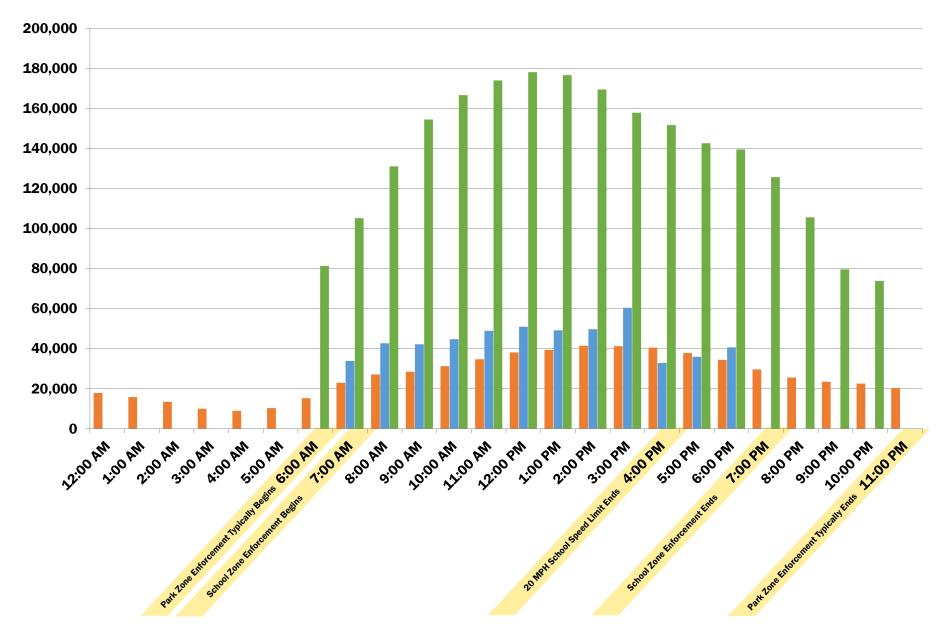
\* The number of tickets issued in 2021 reflects the lower speed threshold for \$35 tickets (6 mph), which went into effect in March 2021.

### **Tickets Issued by Month and Day of the Week in 2021**



\*Data as of 7/5/2022. Data includes any tickets issued in error.

### **Tickets Issued by Time of Day in 2021**



\* Jan. and Feb. School Zone ticket numbers reflect school closings due to Covid-19 restrictions. Speed Zone ticket numbers reflect the lower speed ticket threshold (6 mph).

Red Light Camera

Speed Camera - School Zone

Speed Camera - Park Zone

\*Data as of 7/5/2022. Data may include tickets issued in error.

### **Appendix A: How Red Light Cameras Work**

Automated red light cameras allow the City to enforce laws prohibiting red light running at high priority intersections 24 hours a day, 365 days a year. Using a combination of 3D tracking radar, high-resolution digital cameras, and high-definition video recorders, the red light camera system tracks the status of the traffic light signal and the speed of vehicles approaching the intersection. The camera system operates as a monitoring system only and does not control the operation (timing and phasing) of the traffic signals.

First, each vehicle approaching the intersection is tracked by a radar-based detection system to determine the vehicle speed and position. Based on current status of the signal, the computer will then determine the likelihood of the vehicle continuing into the intersection after the signal has changed to red. If the system identifies the potential for an infraction, the camera system will capture two digital pictures and a 12-second video, along with accompanying data (including a close-up view of the license plate). The first photo shows the vehicle prior to it entering the intersection. The second photo is timed to capture the vehicle as it travels through the intersection. Additional data collected includes time, date, vehicle speed, signal amber time, location, time into red, and direction of travel. According to the City's automated enforcement policy, the signal amber time must be at least three seconds in order for a ticket to be issued. The camera systems are checked remotely by Conduent personnel on a daily basis for camera image quality, system uptime, and data quality. In addition, an on-site maintenance check is performed monthly at each camera location by a certified technician.

In 2017, the enforcement threshold (or "grace period") for issuing a violation was extended from 0.1 seconds to 0.3 seconds after the signal turns red. This change was one of the key recommendations in Northwestern University's 2017 study of Chicago's red light camera enforcement program, and was intended to ensure the program's fairness while maintaining its safety benefits.

Not all events captured by the red light cameras are found to be violations. In 2020, 30 percent of red light running events captured were determined to be a violation. The camera systems forward images and video of each event to a centralized database. Each event is then individually reviewed by trained Conduent staff. If a Conduent reviewer identifies the event as a valid red light violation, the captured video and images are then forwarded to the City Department of Finance and their vendor to make a final, official determination. If the violation is found to be valid, the Department of Finance will perform a license plate search to identify the vehicle owner and owner address, to which they mail the ticket. Fines for red light camera violations are currently set at \$100. More information about how red light camera violations are processed can be found on the CDOT website: <a href="https://www.cityofchicago.org/city/en/depts/cdot.html">www.cityofchicago.org/city/en/depts/cdot.html</a>.

When new red light cameras are installed and activated there is an initial two-week "warning period." During this period, the cameras will flash when an event occurs, but will not trigger the review process or result in a violation. In order to provide motorists with notification of camera locations, signs indicating that a red light camera is operating at the intersection ahead are placed on all approaches of the intersection.

### **Appendix B: How Speed Cameras Work**

Similar to the red light camera system, the automated speed enforcement camera system uses a combination of 3D tracking radar, high-resolution digital cameras, and high-definition video. Each vehicle approaching the safety zone enforcement area is tracked by a radar-based detection system to determine the vehicle speed. If the vehicle is traveling 6 mph or more over the posted speed limit, the camera system captures two digital pictures of the event and a 6-second high-resolution video. (See inset for information about zero-dollar warnings). The images are used to validate the violation and capture the license plate number. The video clip of the event is used as evidence of the violation. Additional data collected includes the time, date, posted speed limit, vehicle speed, location, and direction of travel. The speed cameras are calibrated each week by a certified technician to ensure accuracy. Verra Mobility [formerly American Traffic Solutions, Inc. (ATS)] conducts daily remote checks to ensure accuracy of the speed camera system. And a certified technician calibrates each individual camera once every week.

Once a possible automated speed enforcement event is identified. according to State Law a preliminary review is conducted by CDOT's vendor, Verra Mobility. If a Verra Mobility reviewer identifies the event as a potential violation, the images, video, and data are forwarded to the Department of Finance for review. The Department of Finance reviews this evidence and if it determines that a violation has occurred, the evidence is then forwarded to a vendor working for the Department of Finance for an additional, third review before the automated speed enforcement violation is considered valid. In 2021, 34 percent of the events captured by a speed camera were determined to be a valid violation. Once the violation is confirmed, the Department of Finance will perform a license plate search to find the registered vehicle owner's address and mail the owner a ticket or warning. Fines are currently set at \$35 for violations of 6-10 mph over the posted speed limit and \$100 for violations of 11 mph or greater over the posted speed limit. More information on how speed camera violations are processed can be found on the CDOT website at: www.cityofchicago.org/city/en/depts/cdot.html.

#### **Zero-Dollar Warnings**

When an automated speed enforcement camera is first installed and activated in a Child Safety Zone, the City of Chicago issues warning notices to motorists traveling six or more mph over the posted speed limit for the first 30 days that the camera is operational. No tickets are issued during this period. After the 30-day warning period, there is an additional two-week period without enforcement, to ensure that all warnings have been received in the mail. After the two-week period, the City begins to issue tickets.

After ticketing begins, any motorists that do not already have a speed camera-issued ticket associated with their vehicle license plate will receive a zero-dollar fine for their first ticket. This provides motorists with another, final opportunity to be warned of the new camera location and the posted speed limit. Following the first zero-dollar ticket, all subsequent tickets are set at \$35 or \$100, depending on the speed of the vehicle (as described above).

### **Appendix C**

## Red Light Camera Tickets Issued in 2021 by Intersection

	Tickets Issued	BROAD
Intersection	2021	CALIFO
111TH AND HALSTED	5,739	CALIFO
119TH AND HALSTED	5,111	CALIFO
31ST ST AND MARTIN LUTHER KING DRIVE	8,788	CANAL
35TH AND WESTERN	2,528	CENTRA
4700 WESTERN	1,900	CENTRA
55TH AND KEDZIE	1,580	CENTRA
55TH and PULASKI	2,188	CENTRA
55TH AND WESTERN	2,198	CENTRA
63RD AND STATE	8,037	CENTRA
71ST AND ASHLAND	4,166	CENTRA
75TH AND STATE	18,829	CENTRA
79TH AND HALSTED	4,420	CERMA
79TH AND KEDZIE	1,732	CHICAG
87TH AND VINCENNES	7,710	CICERO
99TH AND HALSTED	14,145	CICERO
ADDISON AND HARLEM	2,011	CICERO
ARCHER AND CICERO	6,754	CICERO
ASHLAND AND 87TH	4,719	CICERO
ASHLAND AND 95TH	6,094	CICERO
ASHLAND AND DIVISION	3,452	CICERO
ASHLAND AND FULLERTON	5,525	CICERO
ASHLAND AND IRVING PARK	1,791	CICERO
ASHLAND AND LAWRENCE	3,142	CICERO
ASHLAND AND MADISON	4,637	CICERO
AUSTIN AND ADDISON	1,362	CLARK
AUSTIN AND IRVING PARK	1,166	CLARK
BELMONT AND KEDZIE	8,445	COLUM

	Tickets Issued
Intersection	2021
BROADWAY/SHERIDAN AND DEVON	6,199
CALIFORNIA AND DEVON	1,497
CALIFORNIA AND DIVERSEY	7,772
CALIFORNIA AND PETERSON	925
CANAL AND ROOSEVELT	6,037
CENTRAL AND ADDISON	1,491
CENTRAL AND BELMONT	1,086
CENTRAL AND CHICAGO	4,232
CENTRAL AND DIVERSEY	811
CENTRAL AND FULLERTON	1,616
CENTRAL AND IRVING PARK	803
CENTRAL AND LAKE	5,052
CENTRAL AND MILWAUKEE	426
CERMAK AND PULASKI	3,449
CHICAGO AND CLARK	3,802
CICERO AND 47TH	2,457
CICERO AND ADDISON	3,576
CICERO AND ARMITAGE	1,776
CICERO AND CHICAGO	3,568
CICERO AND DIVERSEY	2,181
CICERO AND FULLERTON	1,777
CICERO AND HARRISON	4,412
CICERO AND 155	22,759
CICERO AND NORTH	4,503
CICERO AND PETERSON	1,376
CICERO AND WASHINGTON	6,356
CLARK AND FULLERTON	1,135
CLARK AND IRVING PARK	2,933
COLUMBUS AND ILLINOIS	3,472

Note: Data as of 7/5/2022. Data may include tickets issued in error.

	Tickets Issued		Tickets Issued
Intersection	2021	Intersection	2021
CORTLAND AND ASHLAND	5,560	KEDZIE AND 26TH	2,158
COTTAGE GROVE AND 71ST	1,963	KEDZIE AND 31ST	1,753
DAMEN AND 63RD	3,685	KEDZIE AND 47TH	2,099
DAMEN AND DIVERSEY	2,428	KEDZIE AND 63RD	1,761
DAMEN AND ELSTON	1,742	KEDZIE AND 71ST	2,666
DAMEN AND FULLERTON	5,775	KEDZIE AND ARMITAGE	4,232
DIVERSEY AND AUSTIN	1,319	KIMBALL AND DIVERSEY	1,886
DIVERSEY AND WESTERN	2,269	KOSTNER AND NORTH	9,539
DIVISION AND DAMEN	3,994	LAFAYETTE AND 87TH	22,245
ELSTON AND ADDISON	2,961	LAKE AND UPPER WACKER	11,284
ELSTON AND IRVING PARK	2,474	LAKE SHORE DR AND BELMONT	25,407
ELSTON AND LAWRENCE	2,672	LARAMIE AND FULLERTON	2,362
FOSTER AND BROADWAY	2,858	LARAMIE AND MADISON	4,997
FOSTER AND NAGLE	3,467	LASALLE AND KINZIE	2,228
FOSTER AND NORTHWEST HIGHWAY	1,292	LAWRENCE AND CICERO	4,341
FULLERTON AND NARRAGANSETT	2,392	LAWRENCE AND WESTERN	1,593
HALSTED AND 95TH	2,577	MADISON AND WESTERN	3,567
HALSTED AND DIVISION	3,840	MICHIGAN AND JACKSON	5,421
HALSTED AND FULLERTON	2,471	MICHIGAN AND ONTARIO	3,868
HALSTED AND MADISON	3,011	MILWAUKEE AND CENTRAL	1,454
HALSTED AND NORTH	3,830	MILWAUKEE AND DEVON	2,461
HAMLIN AND LAKE	3,738	MILWAUKEE AND MONTROSE	850
HAMLIN AND MADISON	6,103	MONTROSE AND WESTERN	1,861
HARLEM AND BELMONT	2,154	NORTHWEST HIGHWAY AND FOSTER	399
HOLLYWOOD AND SHERIDAN	10,138	OGDEN AND KOSTNER	4,875
HOMAN/KIMBALL AND NORTH	2,881	PETERSON AND WESTERN	3,398
IRVING PARK AND CALIFORNIA	3,444	PULASKI AND 63RD	2,629
IRVING PARK AND KILPATRICK	3,409	PULASKI AND 79TH	2,027
IRVING PARK AND LARAMIE	2,514	PULASKI AND ARCHER	1,673
IRVING PARK AND NARRAGANSETT	1,558	PULASKI AND ARMITAGE	2,425
JEFFERY AND 95TH	2,507	PULASKI AND BELMONT	1,747

Note: Data as of 7/5/2022. Data may include tickets issued in error.

	Tickets Issued		Tickets Issued
Intersection	2021	Intersection	2021
PULASKI AND CHICAGO	2,908	STONEY ISLAND AND 79TH	3,639
PULASKI AND DIVERSEY	1,270	STONY ISLAND/CORNELL AND 67TH	10,981
PULASKI AND DIVISION	3,018	TOUHY AND OSCEOLA	838
PULASKI AND FOSTER	2,829	VAN BUREN AND WESTERN	11,113
PULASKI AND FULLERTON	2,413	WENTWORTH AND GARFIELD	19,451
PULASKI AND IRVING PARK	3,010	WESTERN AND 63RD	2,354
PULASKI AND LAWRENCE	1,117	WESTERN AND 79TH	2,285
PULASKI AND NORTH	1,641	WESTERN AND ADDISON	2,178
RIDGE AND CLARK	1,702	WESTERN AND CERMAK	2,744
ROOSEVELT AND HALSTED	7,143	WESTERN AND CHICAGO	1,469
ROOSEVELT AND KOSTNER	4,776	WESTERN AND DEVON	765
ROOSEVELT AND PULASKI	3,824	WESTERN AND FOSTER	1,522
SACRAMENTO AND CHICAGO	4,735	WESTERN AND FULLERTON	4,091
SACRAMENTO AND LAKE	3,166	WESTERN AND MARQUETTE	4,704
SHERIDAN AND FOSTER	1,515	WESTERN AND NORTH	1,765
STATE AND 79TH	14,571	WESTERN AND TOUHY	1,942
STONEY ISLAND AND 76TH	13,400	Total	630,759

Note: Data as of 7/5/2022. Data may include tickets issued in error.

## Speed Camera Tickets Issued in 2021 by Location

#### **School Zone Locations**

		Tickets Issued
Address	Zone	2021
4319 W 47th St	Acero - Major Hector Garcia HS	1633
4246 W 47th St	Acero - Major Hector Garcia HS	1746
1440 W Cermak Rd	Benito Juarez High School	14013
7833 S Pulaski	Bogan HS	2231
7826 S Pulaski	Bogan HS	2003
3851 W 79th	Bogan HS	3769
3832 W 79th	Bogan HS	2076
3111 N Ashland Ave	Burley Elementary School	2215
3130 N Ashland Ave	Burley Elementary School	10319
1635 N Ashland Ave	Burr School	7201
1638 N Ashland Ave	Burr School	3298
5509 W Fullerton	Charles Prosser HS	7913
5446 W Fullerton	Charles Prosser HS	3763
5440 W Grand	Charles Prosser HS	4993
3843 W 111th	Chicago Ag HS	8566
2109 E 87th St	Chicago Vocational HS	9645
2445 W 51st St	Christopher School	536
2440 W 51st St	Christopher School	400
5025 S Western Ave	Christopher School	13767
5006 S Western Blvd	Christopher School	19501
4929 S Pulaski	Curie HS	5078
5030 S Pulaski	Curie HS	10982
4925 S Archer	Curie HS	9716
215 E 63rd St	Dulles Elementary School	44097
6330 S Martin Luther King Dr	Dulles Elementary School	11473
19 E Chicago Ave	Frances Xavier School	1252

		Tickets Issued
Address	Zone	2021
14 W Chicago Ave	Frances Xavier School	855
4042 W Roosevelt Rd	Frazier Magnet School	11783
1117 S Pulaski Rd	Frazier Magnet School	5386
1110 S Pulaski Rd	Frazier Magnet School	5312
7157 S South Chicago Ave	Gary Comer High School	6792
819 E 71st St	Gary Comer High School	14642
7122 S South Chicago Ave	Gary Comer High School	16365
7518 S Vincennes	Harvard Elem School	12894
346 W 76th St	Harvard Elementary	2005
341 W 76th St	Harvard Elementary	1197
3115 N Narragansett Ave	ICCI School	649
6443 W Belmont Ave	ICCI School	430
6514 W Belmont Ave	ICCI School	534
3116 N Narragansett Ave	ICCI School	976
5433 S Pulaski	John Hancock HS	7054
5428 S Pulaski	John Hancock HS	422
4045 W 55th	John Hancock HS	1946
4040 W 55th	John Hancock HS	2436
629 S State	Jones College Prep HS	8251
630 S State	Jones College Prep HS	6484
3521 N Western	Lane Tech HS	14275
3534 N Western	Lane Tech HS	14682
2549 W Addison	Lane Tech HS	14005
3230 N Milwaukee Ave	Lorca School	12758
3809 W Belmont Ave	Lorca School	2605
3810 W Belmont Ave	Lorca School	654
11153 S Vincennes	Morgan Park HS	3634
11144 S Vincennes	Morgan Park HS	6101
1455 W Division St	Near North Montessori School	9975

Note: Speed camera data in this table is from 7/5/2022. Data may include tickets issued in error.

		Tickets Issued
Address	Zone	2021
1444 W Division St	Near North Montessori School	5212
4041 W Chicago Ave	Orr High School	5432
4040 W Chicago Ave	Orr High School	8543
732 N Pulaski Rd	Orr High School	5625
2335 W Cermak Rd	Pickard School	900
2326 W Cermak Rd	Pickard School	349
2115 S Western Ave	Pickard School	12685
2108 S Western Ave	Pickard School	8601
1229 N Western Ave	Roberto Clemente HS	4471
1226 N Western Ave	Roberto Clemente HS	5657
2329 W Division St	Roberto Clemente HS	2869
6125 N Cicero Ave	Sauganash School	6679
4707 W Peterson Ave	Sauganash School	14414
4674 W Peterson Ave	Sauganash School	6646
4843 W Fullerton	St Genevieve School	9407
5532 S Kedzie Ave	St. Gall Elementary	354
3217 W 55th St	St. Gall Elementary	685
3212 W 55th St	St. Gall Elementary	809
7739 S Western	St. Rita HS	10235
7738 S Western	St. Rita HS	5571
2603 W 79th	St. Rita HS	2515
2550 W 79th	St. Rita HS	2530
5739 N Northwest Hwy	Taft High School	13542
6510 W Bryn Mawr Ave	Taft High School	11226
Total		532,245

Note: Speed camera data in this table is from  $7/5/2022. \$  Data may include tickets issued in error.

#### **Park Zone Locations**

		Tickets Issued
Address	Zone	2021
57 E 95th	Abbott Park	16591
62 E 95th	Abbott Park	8618
4831 W Lawrence Ave	Ashmore Park	102947
4909 N Cicero Ave	Ashmore Park	98960
2416 W 103rd St	Beverly Park	22048
2417 W 103rd St	Beverly Park	3596
3535 E 95th St	Calumet Park	26636
3542 E 95th St	Calumet Park	4681
9618 S Ewing Ave	Calumet Park	14755
1142 W Irving Park	Challenger Park	69405
4429 N Broadway	Challenger Park	1983
4446 N Broadway	Challenger Park	2774
515 S Central Ave	Columbus Park	37062
5816 W Jackson	Columbus Park	13835
506 S Central Ave	Columbus Park	9832
2917 W Roosevelt	Douglas Park	63050
2912 W Roosevelt	Douglas Park	28892
2900 W Ogden	Douglas Park	35965
8345 S Ashland Ave	Foster Park	6524
8318 S Ashland Ave	Foster Park	30801
1507 W 83rd St	Foster Park	26196
5529 S Western	Gage Park	16620
5520 S Western	Gage Park	32405
2513 W 55th	Gage Park	12696
3655 W Jackson	Garfield Park	21002
3646 W Madison	Garfield Park	21644
4124 W Foster	Gompers Park	81283
5120 N Pulaski	Gompers Park	31890
8020 W Forest Preserve Ave	Hiawatha Park	73710
8043 W Addison St	Hiawatha Park	4439
8006 W Addison St	Hiawatha Park	8851

		Tickets Issued
Address	Zone	2021
3047 W Jackson Blvd	Horan Park	22340
324 S Kedzie Ave	Horan Park	21761
2721 W Montrose	Horner Park	7
2705 W Irving Park	Horner Park	0
2712 W Irving Park	Horner Park	0
1111 N Humboldt	Humboldt Park	26848
3100 W Augusta	Humboldt Park	78367
5471 W Higgins	Jefferson Park	9153
5432 W Lawrence	Jefferson Park	30392
10318 S Indianapolis	John Beans Beniac Park - Park 499	66218
1754 N. Pulaski Rd	Keystone Park	20304
4053 W North Ave	Keystone Park	17779
4042 W North Ave	Keystone Park	31590
1306 W 76th	King (Martin Luther Jr.) Park	8472
3911 W Diversey Ave	Kosciuszko Park	3483
3137 W Peterson	Legion Park	24047
3034 W Foster	Legion Park	34878
445 W 127th	Major Taylor Bike (Park)	92751
6909 S Kedzie	Marquette Park	15866
3450 W 71st	Marquette Park	23265
6818 S Kedzie	Marquette Park	26361
2928 S Halsted	McGuane Park	7297
2080 W Pershing	McKinley Park	11854
3843 S Western	McKinley Park	56657
6626 W Irving Park Rd	Merrimac Park	35312

Note: Speed camera data in this table is from 7/5/2022. Data may include tickets issued in error.

		Tickets Issued
Address	Zone	2021
3200 S Archer Ave	Mulberry Park	68362
449 N Columbus Dr	Ogden Plaza Park	11102
450 N Columbus Dr	Ogden Plaza Park	9773
324 E Illinois St	Ogden Plaza Park	17177
4620 W Belmont Ave	Parsons Park	9977
4123 N Central Ave	Portage Park	35977
5454 W Irving Park	Portage Park	7365
6247 W Fullerton	Riis Park	8516
6250 W Fullerton	Riis Park	10855
7422 S Jeffery	Rosenblum Park	26691
1901 E 75th St	Rosenblum Park	24657
2448 N Clybourn Ave	Schaefer Park	15819
2443 N Ashland	Schaefer Park	43834
2432 N Ashland	Schaefer Park	13222
5885 N Ridge Ave	Senn Park	21480
5420 S Racine Ave	Sherman Park	9179
1334 W Garfield Blvd	Sherman Park	15739
1315 W Garfield Blvd	Sherman Park	38147
141 N Ashland	Union Park	54462
140 N Ashland	Union Park	16371
115 N Ogden	Union Park	28874
6523 N Western	Warren Park	44569
5330 S Cottage Grove	Washington Park	37227
536 E Morgan	Washington Park	119983
4433 N Western	Welles Park	14793
4432 N Lincoln	Welles Park	11518
4436 N Western	Welles Park	3129
Total	2,313,491	
Grand Total (School and Park)		2,845,736

### **Appendix D: Additional Resources**

#### **CDOT Website**

https://www.chicago.gov/city/en/depts/cdot/provdrs/automated\_enforcement.html

#### The City of Chicago Open Data Portal Automated Speed Enforcement

https://data.cityofchicago.org/Transportation/Speed-Camera-Violations/hhkd-xvj4/data

#### The City of Chicago Open Data Portal Automated Red light Enforcement

https://data.cityofchicago.org/Transportation/Red-Light-Camera-Violations/spqx-js37/data

#### The Insurance Institute for Highway Safety

https://www.iihs.org/iihs/topics/t/red-light-running/topicoverview http://www.iihs.org/iihs/sr/statusreport/article/48/1/2

#### **The National Highway Safety Administration**

https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/812257\_systemanalysisase.pdf

#### **The Federal Highway Administration**

http://safety.fhwa.dot.gov/intersection/other\_topics/fhwasa10005/brief\_7.cfm

#### Northwestern University Transportation Center - Chicago Red Light Camera Report

http://www.transportation.northwestern.edu/research/report-redlightcameras.html



