





## Green Cross for Safety® Awards 2025 Finalist | Excellence

### **New York City Department of Citywide Administrative Services Case Study**

The New York City Department of Citywide Administrative Services (DCAS) operates the largest municipal fleet in the United States, with over 28,500 vehicles, and assists with the oversight of a 10,000-vehicle NYC-contracted school bus fleet. As a leader in adopting fleet safety technologies and countermeasures, DCAS adopted a New York City Safe Fleet Transition Plan (SFTP) in 2017. The SFTP formalized a set of best-practice vehicle-safety technologies for all NYC owned vehicles to prevent and mitigate crashes, in direct support of Vision Zero. In 2014, New York city was the first municipality in the United States to adopt Vision Zero, and DCAS has been a lead agency from the onset.

The SFTP, which was developed in partnership with the US DOT Volpe Center, was updated in 2018 and then again in 2025. This 2025 update reported over 100,000 safety upgrades that had been implemented, including national leadership in intelligent speed assistance, truck sideguards, addressing visual awareness for trucks and telematics. NYC has also trained over 115,000 staff in all day training about safety since 2012 and has barred use of hands-free phones by operators, arguing that its distraction that is the risk.

In addition to the SFTP documents, Volpe and DCAS have partnered on several other studies focused on individual industries or technologies. These include the nation's first ever comprehensive sideguard and ISA evaluations, and Safe Fleet Transition Plans targeted at both the private waste hauling and school busing industries. All of these documents are published publicly, to serve as both a mechanism for city accountability and to serve as guiding documents to other fleet entities around the world.

Following is a non-exhaustive breakdown of the safety programs that were born out of, or are directly related to, the Safe Fleet documents created with Volpe.

Safety Investment	Light-duty	Medium-duty	Heavy-duty	Total
Automatic lights/daytime running lights	7,159	1,822	3,388	12,369
Backup camera	7,009	1,705	3,507	12,221
Live telematics (City vehicles)	12,544	4,932	8,291	25,767
Live telematics (school buses)	-	10,349		10,349
Multifrequency backup alarm	-	-	629	629
Safety lights	-	784	3,411	4,195
Side guards (lateral protective devices)	-	80	4,530	4,610
Surround vision camera	401	-	1,547	1,948
High Vision (EO39 Definition)			456	456
Volume adjusting backup alarm	-	-	2,367	2,367
Driver alerts (LDW and/or FCW)	3,780	1,201	67	5,048
Automatic emergency braking (AEB)	4,491	1,125	40	5,656
Backup sensors (retrofit)	1	290	711	1,002
Blind spot monitoring	4,011	860	182	5,053
Intelligent Speed Assistance (ISA) (retrofit)	345	82	73	500
Navigation systems (OEM, not upfit or plug in)	1,064	512	944	2,520
Pedestrian turn alerts (retrofit)	-	42	158	200
Power and heated mirrors	-	805	1,696	2,501
Power Windows (Heavy, Medium)		463	298	761
Rear AEB	872	240	125	1,237
Speed governors	-	850	3,604	4,454
Connected vehicles (CV) – US DOT Federal Grant project; no				
longer active (Not included in totals)	1,842	747	387	2,976
Total	41,677	26,142	36,024	103,843

Breakdown of the 100,000+ safety investments made by DCAS in the Citywide Fleet through December 2024.

#### **Sideguards**

DCAS is leading the nation in implementing truck sideguards and, along with US DOT Volpe and other cities, and received national <u>recognition</u> from the Federal Laboratory Consortium for this effort in 2016.

Sideguards are a system of rails installed between the axels of a truck that prevent pedestrians and bicyclists from being run over by the rear wheels should a collision occur. An original component of the <u>Citywide Vision Zero Action Plan</u>, this common-sense safety device has been a standard safety feature in other parts of the world for decades, but is still fairly uncommon in the U.S. Sideguard viability as a safety tool was explored in our first ever document penned in partnership with Volpe and was published in 2014: <u>Truck Sideguards for Vision Zero</u>.

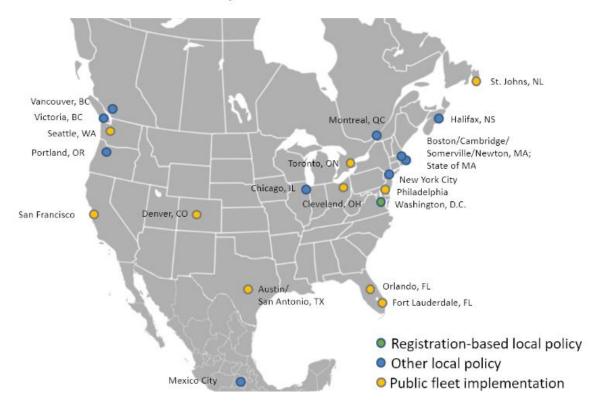
The results of that document led to <u>Local Law 56 of 2015</u>, which mandated sideguards for all applicable city owned vehicles and commercial waste vehicles. Full compliance for the city owned truck fleet was achieved in 2023, and about 4,600 icty owned trucks are now equipped with sideguards. The sideguard mandate was extended to the citywide contracted fleet in <u>Local Law 108 of 2021</u> and compliance efforts are ongoing. Since DCAS and Volpe published the initial sideguard

evaluation, over a dozen other municipalities in the U.S. have required sideguards of their own trucking fleets.



An older city-owned box truck that has been retrofit with sideguards.

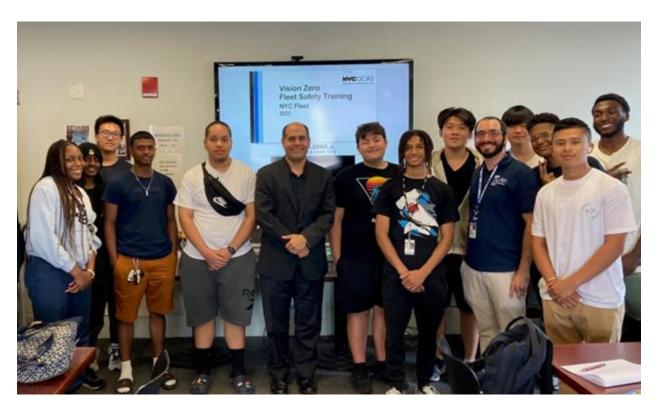
## Truck Side Guard Adoption in North America



Map of all North American municipalities with sideguard policies on their books. Image from US DOT Volpe Center: <a href="https://www.volpe.dot.gov/LPDs">https://www.volpe.dot.gov/LPDs</a>

#### **Defensive Driving**

Driving in New York City and for New York City are unique challenges that require specialized training. Moreover, it requires training that can be customized to account for the constantly changing road and fleet landscape in the five boroughs. The citywide defensive driving program provides this opportunity. DCAS has been offering the course since at least 2012 and took the program citywide in 2014, the first year of Vision Zero. Drivers take our customized six-hour course every three years, and we update it at least once a year to ensure that our drivers are receiving the most up to date information. Drivers learn about the Vision Zero program and their role in it while also getting credit for a state approved course to get a discount on their personal car insurance. To date, over 115,000 people have participated in our defensive driving course. While this training has been mandated for all drivers by Fleet policy for a decade, it became a City Hall requirement in in 2024 when Mayor Adams signed Executive Order 39. DCAS is in the process of expanding this training to both the citywide school bus fleet and contracted fleets.

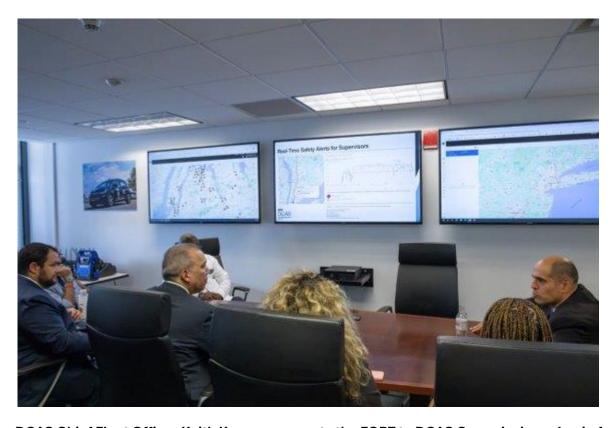


DCAS Chief Fleet Officer Keith Kerman and Defensive Driving Instructor Nathaniel Koszer pose with a class of high school summer automotive interns after they participated in the DCAS defensive driving program.

#### Fleet Office of Real Time Tracking (FORT), Citywide Telematics

Formally launched in 2018 in congruence with our <u>first SFTP update</u>, DCAS Fleet operates the Fleet Office of Realtime Tracking (FORT) out of our main office at the Municipal Building. From that office, the real-time locations of 19,000 city owned vehicles and 10,000 school buses are continuously monitored. Alerts are received and acted on immediately if a vehicle is found to be excessively speeding or involved in a collision. Safety metrics collected by the telematics system are used to

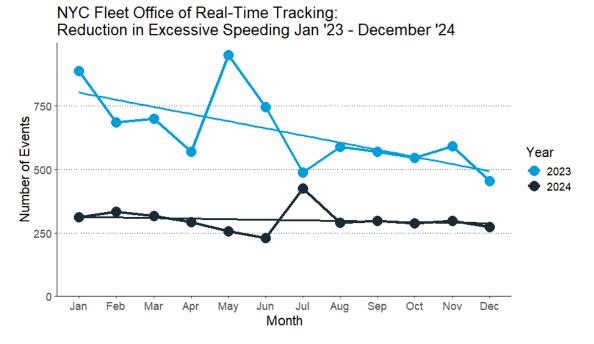
generate scorecards for each vehicle so agencies can effectively find and correct problematic behavior. The telematics program has also had dramatic effects on non-safety issues such as theft and utilization. The reporting provided by telematics has led to a 70% reduction in excessive speeding across the city owned fleet and a 40% overall drop in high risk driving. DCAS' safety index tracks speeding, excessive speeding, and seatbelt use which are legal mandates; hard braking, cornering and accelerating (the ABCs); crashes, maintenance alerts, and idling.



DCAS Chief Fleet Officer Keith Kerman presents the FORT to DCAS Commissioner Louis A Molina.



This map is a snapshot of the real-time location of all 19,000 city vehicles managed by DCAS and tracked through the FORT.



Graphical representation of the precipitous drop in citywide excessive speeding thanks to telematics reporting coming from the FORT.

#### **Executive Order 39: High Vision Truck Cabs/Surround Cameras**

Executive Order 39 of 2024 constitutes one of the nation's leading efforts to address visual obstruction for truck operators, inspired by the London Direct Vision Standard.

High Vision truck cabs are designed with a flat nose in the front, a lower cab entry, and wider windows to enable better visibility. Traditional truck cabs have a blind spot of up to fifteen feet in front of the front bumper, while high vision cabs can have blind spots of less than three feet. A study conducted by the USDOT Volpe Center used virtual reality simulators to compare high vision cabs with standard truck cabs. In the standard truck cabs, drivers struck a child stopped in the crosswalk 39 out of 45 times. In the high vision cabs, the child in the crosswalk was never struck. In 2018, DCAS announced it would purchase high vision truck cabs wherever they are available in the market. Until every truck is replaced with a high vision model, DCAS is requiring that all standard cab trucks be equipped with surround camera systems to help mitigate the dangers posed by this design. About 2,000 city-owned trucks are equipped with surround camera technology with over 800 more on order. Additionally, the New York City fleet owns about 450 high vision cab trucks. In 2024, this initiative became mandated with the signing of Executive Order 39. The EO also further required these changes of the city's contracted fleet, along with several other safety requirements including telematics and safety training programs modeled after DCAS' efforts.

# **Surround Cameras for Trucks**









A field of view demonstration for the surround cameras used by DCAS.



The NYC Parks Dept. truck in this photograph is one of several model types that meet the High Vision classification.

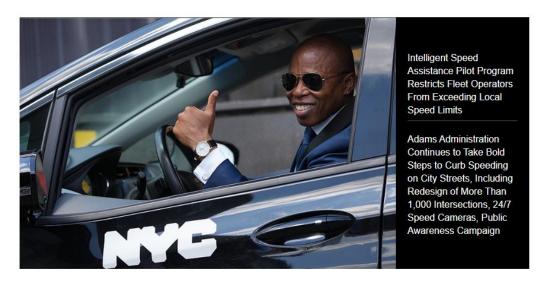
#### **Intelligent Speed Assistance**

DCAS is leading the nation in the rollout of active intelligent speed assistance (ISA).

ISA is an innovative technology that physically prevents speeding. It uses GPS to find the speed limit of the road being traveled, then limits the vehicle's speed to that limit. A comprehensive evaluation of the technology's effectiveness conducted by DCAS and the US DOT Volpe Center found a 64% decrease in speeding after the technology was installed. In comparison, a control group without ISA was studied over the same period which demonstrated a 10% increase in speeding. Moreover, the technology was effective both in a pool of vehicles operated normally, and a pool of vehicles identified as habitual speeders. Outside of its safety implications, a DCAS penned study of our 5,500 electric vehicles found that ISA equipped units were 6% more fuel efficient then a peer control group without the technology. There are currently 700 vehicles equipped with ISA that have driven over five million miles combined while the technology was active. DCAS has plans to bring the total ISA equipped pool to 1,000 vehicles by year's end. As we expand this initiative, we are aware that drivers may be unfamiliar and apprehensive towards ISA. To remedy these concerns, DCAS created a training video explaining the system and what drivers can expect from it.

Time Period	ISA Vehicles	<b>Control Vehicles</b>
Pre-ISA	3.2%	3.1%
Post-ISA	1.1%	3.4%
Percent Change	64% decrease	10% increase

Graph showing the difference between ISA equipped vehicles and the control group without ISA.



Mayor Adams poses from inside an ISA equipped vehicle after demonstrating the technology in front of the press.

#### **Additional Initiatives**

While the above efforts have had a well-documented effect and have been adopted in various ways by numerous external entities, there are other initiatives worth noting:

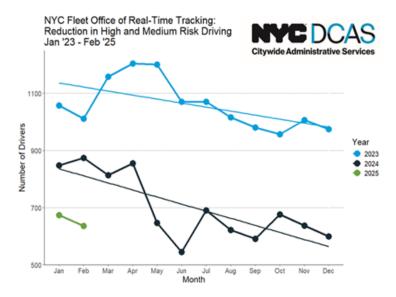
- In 2014, DCAS implemented citywide crash tracking across the fleet to help understand trends. For example, DCAS has achieved major reductions in rear end crashes through trends reporting and training. DCAS has achieved over 25% reduction in total crashes and injuries.
- In 2015, DCAS formally created a policy barring hands-free phone use by fleet operators, with the recognition that it is distraction and not just the physical holding of a phone that causes crashes.
- This review discusses areas of national leadership for DCAS is safe fleet design such as side-guards, telematics, ISA, and high vision/surround cameras for trucks. The safe fleet transition plan also includes major rollouts of other technologies such as automatic braking, rear-automatic braking, rear-view cameras, driver lane assist and alert, pedestrian alerts and others. The Safe Fleet Plan is available to the general public and a guide to other fleets looking to start implementing safer technologies and design.

#### **Results**

• DCAS reports fleet performance publicly in the fleet section of the public Mayor's Management Report (MMR). DCAS is reducing crashes and injuries while increasing training.

VEHICLE FLEETS AND MA	AINTENANCI	E (MMR REF	PORT)	
	Actual		Change	
INDICATORS	FY19	FY24	No.	Percent
Preventable collisions in City vehicles	3,357	2,400	-957	-29%
Injuries involving collisions in City vehicles	827	682	-145	-18%
City employees trained in defensive driving citywide	10,307	11,552	1,245	12%
Authorized City drivers trained in defensive driving (%)	82%	100%	18%	22%
<sup>1</sup> The number of collisions in City vehicles do not include NYPD collisions.				

- As noted above, DCAS has achieved major reductions in excessive speeding and shown the speed reduction performance of ISA
- DCAS has also achieved major reductions in overall high-risk driving as tracked through telematics



- DCAS has implemented various programs to recognize safe drivers including at the Annual Fleet Safety Forum in 2024 and the upcoming Fleet Safety Forum on October 8, 2025. Just as telematics can identify the most at-risk drivers, it can identify the safest. See Fleet Newsletter #476.
- DCAS participates in the Mayor's Office Vision Zero Inter-Agency Coordinating Group. That
  group, led by the City's DOT Commissioner, <u>announced</u> in July 2025 that the City had
  achieved record traffic and road safety for the first 6 months of 2025.