

# DOIT

Illinois Department of  
Innovation & Technology



# Move Over Illinois! Traffic Alerts for Roadside Safety

Digital Services: Government to Citizen

State of Illinois  
Chris Britten  
Public Safety Group CIO  
[Chris.Britten@illinois.gov](mailto:Chris.Britten@illinois.gov)

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## EXECUTIVE SUMMARY

In the realm of traffic safety in Illinois, the “Move Over Illinois!” project aims to address the critical issue of promoting adherence to Scott’s Law (625 ILCS 5/11- 907(c)), also known as the “Move Over” Law. This collaborative effort brings together the Illinois Department of Innovation & Technology (DoIT), the Illinois State Police (ISP), and the innovative Waze alert system, with the goal of reducing accidents and injuries caused by drivers failing to comply with Scott’s Law.

In partnership with Google, Illinois devised a plan to integrate an alert system into the widely used Google Waze navigation app. This integration provides real-time notifications to drivers regarding Crash, Abandoned Vehicle, Road Debris, and Traffic Stop/Critical Incidents. These notifications serve as timely reminders to slow down, move over, and help save lives.

This initiative showcases the importance of innovating by leveraging technology to address critical safety concerns on our roadways for everyone. This pioneering initiative is a testament to the dedication and forward-thinking approach of all involved and has the potential to be adopted widely.

## IDEA

Scott’s Law (625 ILCS 5/11- 907(c)), also known as the “Move Over” Law, was created in memory of Lieutenant Scott Gillen, a Chicago firefighter who tragically lost his life when he was struck by a motorist while responding to a crash on the highway in 2000. Adopted in 2002, Scott’s Law aims to improve the safety of emergency workers and law enforcement officers. This law requires drivers to slow down and change lanes when approaching a stopped emergency vehicle with its lights flashing. It is a simple yet crucial act that can make all the difference in protecting emergency workers as well as the motorists on the highway.

Over time, it became evident that more needed to be done. Sadly, according to the United States Department of Transportation, “more than 150 law enforcement officers have been killed since 1997 after being struck by vehicles along America’s highways.” In Illinois alone, there have been many incidents since 2002 where police, fire, highway workers, and tow truck drivers have been killed or injured by Scott’s Law violators. Despite continued legislative efforts to increase penalties and fines for violators, the number of Scott’s Law-related crashes and incidents involving the Illinois State Police has remained significant. Raising awareness and promoting compliance with Scott’s Law is crucial for protecting the lives of those who protect us. That’s why the Illinois Department of Innovation & Technology (DoIT) and the Illinois State Police (ISP) partnered in a collaborative effort to increase roadway safety for law enforcement officers and other emergency personnel and motorists through the Google Waze navigation system.

Waze is a popular navigation application that provides real-time traffic updates and alerts to about one million users in Illinois. DoIT worked with ISP on a mechanism to incorporate Scott’s Law notifications into the app to alert drivers when an emergency worker or officer is present in the case of an Accident, Abandoned Vehicle, Road Debris, or Traffic Stop. Without the alert system, drivers may be unaware that they need to move over, which has proven to increase the risk of accidents and traffic violations. The joint effort between DoIT and ISP ensures that drivers are well-informed and can take necessary precautions to prioritize safety on the road for everyone.

## IMPLEMENTATION

Since the inception of Scott’s Law, ISP has been exploring ways to notify drivers about police activity on Illinois interstates, highways, and roadways. This led to the idea of using GPS applications that millions of motorists use every day to provide live updates about police activity.

To kick off the collaboration between DoIT and ISP, the teams met to gather project requirements, define the project goals, and identify types of incidents about which drivers should be notified through GPS apps. The DoIT team found that the necessary incident types already existed in the Mobile Architecture for Communications Handling (MACH) dispatch system. These incidents are automatically collected when police officers encounter specific situations on the road and update their status on their Mobile Data Computer System (MDC) mounted in their vehicles.

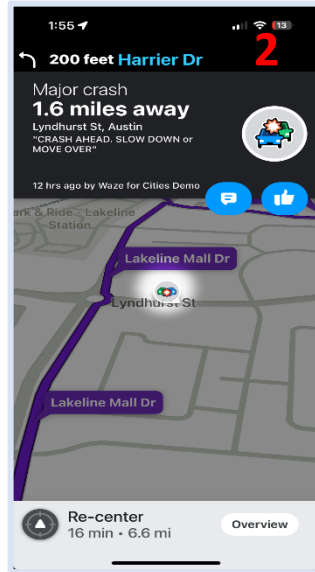
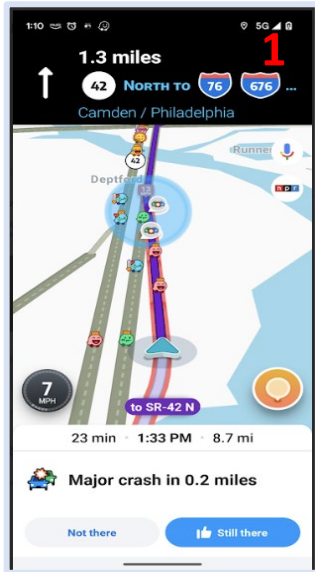
The DoIT and ISP teams then focused their efforts around designing a simplified way to automatically update GPS apps with information from the MACH dispatch system. To achieve this, the State of Illinois partnered with Google and identified Google Waze as a suitable platform for this connection. ISP dispatch information is regularly delivered to a Google Cloud Platform environment, where it is formatted and integrated into the Waze platform. Thanks to this partnership, Waze now provides timely notifications to drivers about the presence of police officers in various situations.

There are four types of incidents, including Crash, Abandoned Vehicle, Road Debris, and Traffic Stop/Critical Incident, that are passed from the MACH dispatch system to the Waze platform.

Incident name (chosen by ISP)	Waze Subtype	40 Characters Custom Message
Crash	ACCIDENT_MAJOR	“CRASH AHEAD. SLOW DOWN or MOVE OVER”
Abandoned Vehicle	HAZARD_ON_SHOULDER_CAR_STOPPED	“CAR ON SHOULDER. SLOW DOWN OR MOVE OVER”
Road Debris	HAZARD_ON_ROAD_OBJECT	“ROAD DEBRIS REPORTED AHEAD. SLOW DOWN”
Traffic Stop/Critical Incident	POLICE_VISIBLE	“POLICE ACTIVITY. SLOW DOWN and MOVE OVER”

The process is straightforward: when an officer is active on the shoulder, an alert notice is promptly sent to Waze from the MACH system. Drivers are then notified to slow down, move over, and help save lives. Once the officer reports their departure from the scene, the notification is removed.

In the case of a **Crash Incident** being sent to Waze, app users will see the screens below. Users can click on the Alert Pin and receive the detailed screens below. If the audio alerts are activated, they will also hear “Major crash in 0.2 miles.”



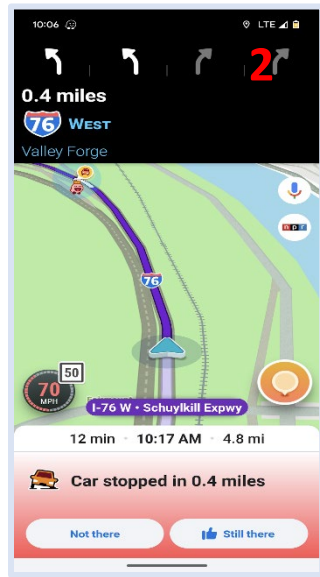
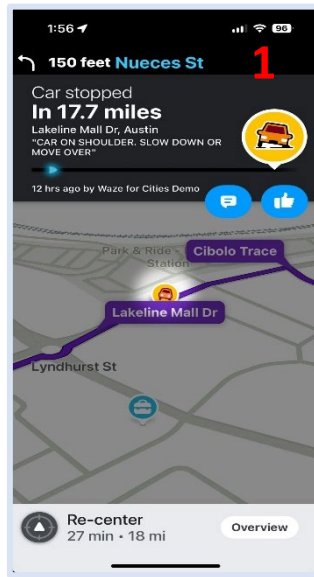
**IMAGE 1**  
**Clear and Concise Symbols:** When you report a crash on Waze, other drivers are alerted with a clear and recognizable crash symbol on the map, helping them avoid slowdowns and potential hazards.

**IMAGE 2**  
**Real-Time Updates:** Waze's graphics update constantly, so you'll always see the most recent crash information on the map, allowing you to make informed decisions about your route.

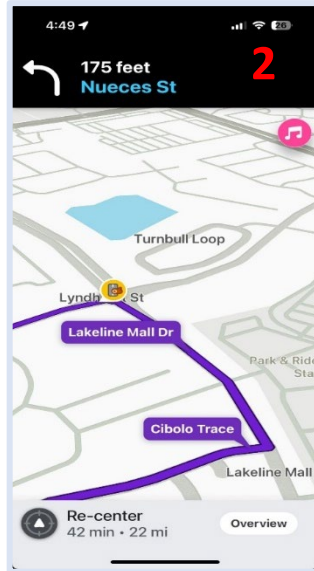
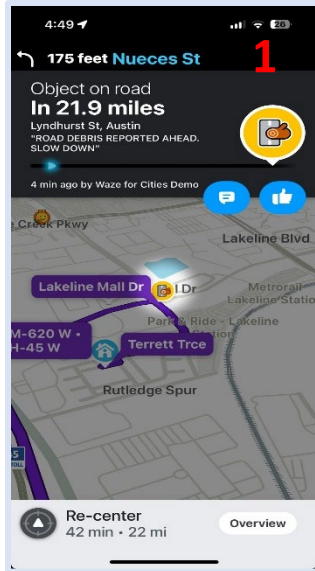
Similarly, if an **Abandoned Vehicle Incident** is sent to Waze, users will see the following screens. Users can click on the Alert Pin to access the screens below. Users can click on the Alert Pin to access the detailed screen on the right. And if the user has their audio alerts activated, they will hear an audible alert saying, “Car stopped in 0.4 miles.”

**IMAGE 1**  
**Clear Icons for Visibility:** Just like with crashes, Waze uses clear and recognizable icons to mark abandoned vehicles on the map. This lets you see them easily while navigating.

**IMAGE 2**  
**Interactive Alerts and Audio Alerts:** Tapping the abandoned vehicle icon brings up a detailed screen. With audio alerts enabled, you'll hear a voice notification like "Car stopped in 0.4 miles" keeping you informed without taking your eyes off the road.



For **Road Debris Incidents**, users will see the screens below in Waze. By clicking on the Alert Pin, they can access the detailed screens below. And if the user has their audio alerts activated, they will hear an audible alert saying, “Object on road in 21.9 miles.”



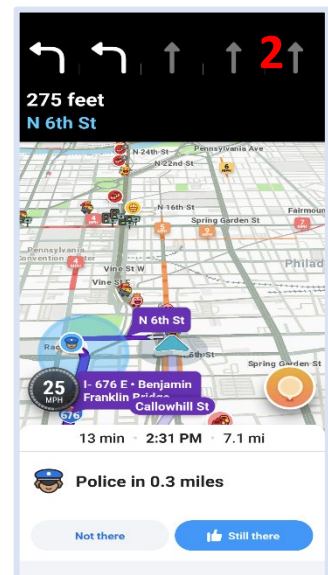
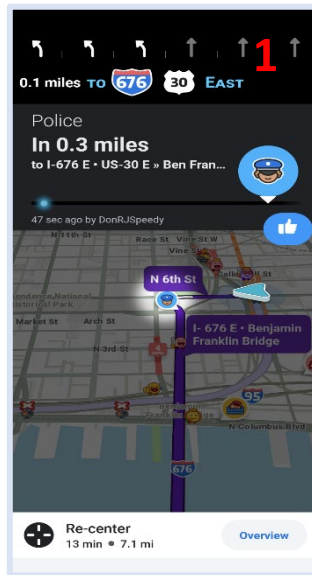
**IMAGE 1**  
**Hazard Alert Pin:** When debris is reported on Waze, a specific icon will appear on the map, alerting you to a potential obstacle on the road 21.9 miles away. This helps you stay vigilant and navigate safely.

**IMAGE 2**  
**Clear Icons for Quick Recognition** Similar to crashes and abandoned vehicles, tapping the debris icon brings up a detailed screen if you want to know more about the reported hazard.

Lastly, in the case of a **Traffic Stop or Critical Incident** being sent to Waze, users will see the following screens. Clicking on the Alert Pin will provide them with the detailed screen on the right. If the user has their audio alerts activated, they will hear an audible alert saying, "Police in 0.3 miles."

**IMAGE 1**  
**Distinct Alert Pins:** Waze uses unique icons to mark traffic stops and critical incidents on the map, separate from other alerts. This ensures they grab your attention and you're aware of potential hazards or delays up ahead.

**IMAGE 2**  
**Informative Audio Info:** If you have audio alerts enabled, Waze will provide tailored voice notifications based on the situation. For instance, you might hear "Police in 0.3 miles" helping you be prepared and adjust your driving accordingly.



This partnership with Google allowed DoIT and ISP to successfully utilize technology and create a safer driving experience for the public while protecting our first responders on the roadways. The value of this project goes far beyond dollars and cents. The potential to save even one person's life is immeasurable and makes every penny spent on implementing this solution worthwhile.

Google worked closely with Illinois to ensure that the project was as cost effective as possible. The total cost from a Google standpoint was approximately \$250,000, which covered expenses such as establishing a data pipeline to the Google Cloud Platform and utilizing professional services for the Google Cloud Deployment. This partnership truly showcases the incredible impact that collaboration and technology can have in creating a safer future on our roads.

In addition, the project also promotes access to information. By leveraging a widely used GPS application like Waze, the project ensures that the information reaches many drivers, making it more accessible and impactful. The accessibility aspect plays a crucial role in spreading awareness and encouraging responsible driving behavior across the state of Illinois.

## IMPACT

By leveraging the widespread usage of Google Waze, Illinois found an innovative technology solution to protect first responders on our roads and prevent further tragedies. Drivers using Waze now receive the automatic transfer of ISP dispatch information to their app with timely notifications about the presence of emergency responders on Illinois interstates, highways, and roadways.

There are numerous benefits to this collaboration. First, it enhances driver awareness and compliance with Scott's Law. By receiving live alerts about roadway incidents where first responders are present, drivers can take necessary precautions, such as slowing down, changing lanes, and giving emergency vehicles the necessary space, they need to operate safely. By creating a buffer zone through the lane change requirement or speed reduction, these personnel can focus on their tasks without the added risk of being struck by passing vehicles.

Furthermore, these alerts raise driver awareness and foster a shared sense of responsibility. It serves as a reminder for drivers to be vigilant and aware of their surroundings, especially when encountering vehicles with flashing lights. By making informed decisions that prioritize safety on the road, drivers contribute to a safer driving environment for everyone.

The project was successfully completed within a tight timeframe of just six weeks, officially wrapping up on February 12, 2024. This impactful initiative is undeniably contributing to enhancing roadside safety throughout the entire state of Illinois. This collaboration brings real time traffic information to Waze users, improving roadway safety. In the short time period from February 12 to March 27, 2024, when this Waze functionality was first launched, the breadth of notifications was impactful. Here's how:



*The Illinois Department of Innovation and Technology (DoIT) assisted the Illinois State Police (ISP) in implementing an advanced warning system that can help reduce crashes and protect Illinois troopers.*

*ISP and DoIT partnered with Google to alert drivers, in real time, of ISP police activity on the road ahead and the need to move over and slow down. DoIT's expertise helped integrate ISP's Mobile Architecture for Communications Handling software with Google technology and GPS to provide alerts in real time. DoIT provided technological support to ensure the success of the project and ISP is grateful for DoIT's critical work with this project."*

**- Lieutenant Colonel Rebecca Hooks, Illinois State Police**

### **Over 37,000 ISP Alerts:**

Law enforcement agencies have contributed a significant amount of data, providing valuable insights into road conditions.

### **240,000+ Drivers Impacted:**

This data has reached a vast number of Waze users, helping them navigate around accidents, traffic stops, and other hazards. Together, ISP, DoIT, and Waze are making roads safer for emergency responders and motorists.