



The City of Kitchener *Keeps the Curb Safe* with AI LPR

Kitchener's enforcement program uses AI-powered License Plate Recognition (AI LPR) and Ticket-by-Mail to improve traffic safety, expand coverage, and support more consistent parking enforcement.

The program started with automated enforcement in the city's 64 school zones. Ever since, compliance has improved, and the approach has expanded into additional enforcement areas. Now, Kitchener has become a valuable reference point for other municipalities exploring similar programs.

In 2024, the City of Kitchener's work was also recognized with the Canadian Parking Association's Innovation in Parking Operations and Programs Award.



**AWARD-WINNING
PARKING PROJECT**



See AI redefine parking enforcement at **gtechna.com**



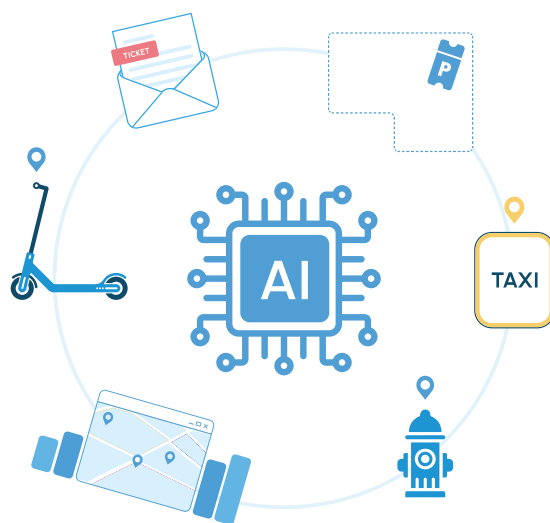
Project Snapshot

- Started with **64 school zones** covered with one dedicated enforcement vehicle
- Currently, **a three-vehicle AI-LPR fleet** covers enforcement for paid parking lots, No Parking Anytime areas, and exceeded posted time limits.
- **25–35%** initial increase in parking ticket revenue
- **99%** success rate for contested AI LPR tickets
- **Positive feedback** from residents, parents, and schools



Technology Used

- AI-powered License Plate Recognition (LPR) and Mobile Ticketing for ticket issuance
- Ticket-by-Mail
- Permit management system
- Online city portal for viewing, paying, and appealing parking tickets
- Parking enforcement system for time-limited and pay-by-plate parking



"Kitchener was the first municipality in Ontario to use gtechna parking software over 20 years ago, and we were also the first to implement AI-powered LPR technology in school zones. Now, we're among the first to implement a fully AI-driven system with gtechna. It's exciting to be at the forefront, testing and implementing new software, helping both the technology and our city grow."

Ian Misheal

Manager of Enforcement, MLEO/CPSO



The Pilot: Enforce Busy School Zones Safely

School zones have always been challenging for parking enforcement. Officers had to stop their vehicles, further blocking the area and reducing visibility, putting them and the children at greater risk. These actions often slowed traffic and made an already congested area more dangerous during drop-off and pick-up times. On top of that, many drivers left before staff could issue tickets, leading to inconsistent enforcement and frequent confrontations. Kitchener needed a safer, more efficient way to enforce parking rules without adding risk.

Enter AI-Driven LPR + Ticket-by-Mail

Kitchener rolled out Ontario's first AI-powered license plate recognition system, built just for school zones. The AI LPR camera scans for violations in real time, captures multi-photo evidence, and eliminates the need for officers to interact with parking violators.

Tickets are processed through a seamless backend system and mailed to the vehicle owner's registered address.

This system has three significant benefits:

1. Officers no longer need to leave the vehicle, reducing safety risks and traffic disruptions.
2. The system captures violations equally across all cars, eliminating bias.
3. Officers can now cover all 64 schools twice a week, doubling their productivity.

Demonstrated Impact

100% more tickets issued
in first 6 months

After 6 months compliance went up and
ticket volume stabilized at **35% increase**

100% acceptance
rate in school zones

50% reduction in
enforcement coverage time



- Consistent enforcement → reduced claims of unfair targeting
- Safer officers → reduced in-person confrontations
- Positive public perception → strong support for fairness and safety
- Internal pride and morale → staff feel empowered, proud to work in a “smart city” using cutting-edge tech

The Early Results: Great Coverage, Strong Evidence, and Increased Revenue

With each school zone receiving enforcement twice a week, Kitchener initially recorded a 25–35% increase in parking ticket revenue between November and June.

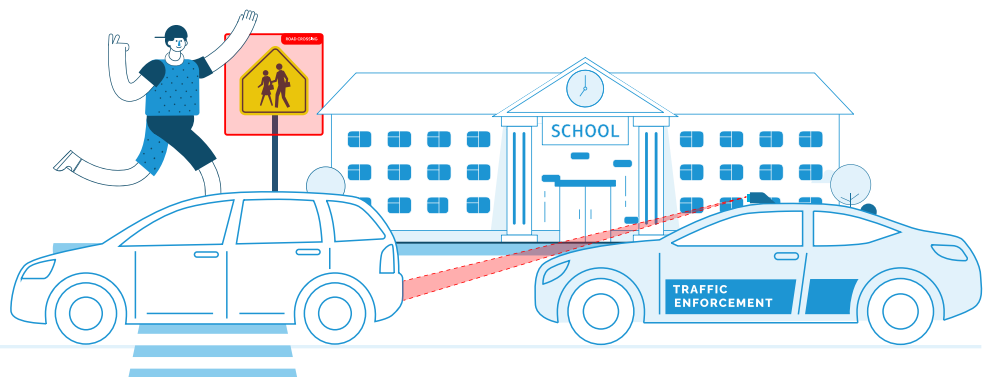
Clear photographic evidence also strengthened the city's position when citations were challenged. The program achieved a 100% success rate for contested school-zone tickets issued through LPR enforcement in the first year.

Parents, schools, and residents responded positively, with community members requesting continued or additional enforcement to support safer, more orderly school zones.

“The system is so precise and effective that once we present drivers with the images—often showing the vehicle with the door open or a sequence of six photos as the vehicle drives by—it becomes clear that the vehicle was indeed parked. The photographic evidence allowed us to reach 100% success rate for contested school zone tickets issued through LPR enforcement.”

Ian Misheal

Manager of Enforcement, MLEO/CPSO



Two Years Later: A Program Built to Last

Two years after the first results were made public, school-zone ticket revenue remains about 20% higher than before Kitchener introduced AI-LPR.

That is below the initial increase, but there is an important reason to look beyond a single KPI. Revenue has remained consistently above pre-AI-LPR levels, while officers also report higher compliance in school zones. That shift in driver behavior points to the longer-term impact of consistent enforcement and brings the program back to the reason it was introduced in the first place: safer school zones.

For Ian Misheal, Manager of By-Law Services for the City of Kitchener, that is the outcome that matters most:

"From our perspective, the real measure of success isn't the revenue generated; it's the improvement in compliance and safety."

Ian Misheal

Manager of Enforcement, MLEO/CPSO

The success rate remains close to perfect, at approximately 99%, with only one successfully challenged school-zone ticket in the last 12 months.

School-zone enforcement gave Kitchener a chance to prove the technology in the field and build a working model around it. With that foundation in place, the city could begin looking beyond the original use case and consider where the same approach could add value next.

The city now owns a three-vehicle AI-LPR fleet, with the technology now used in paid parking lots, for No Parking Anytime enforcement, and to identify vehicles exceeding posted time limits.

"As officers became more comfortable with the technology and saw the results it was producing, we identified additional enforcement areas where it could improve efficiency and compliance."

Ian Misheal

Manager of Enforcement, MLEO/CPSO

Each expansion builds on technology, experience, and processes Kitchener has already tested in the real world. Each new application builds on the last, turning one successful use case into a growing enforcement program.

A Future-Proof Solution for Other Municipalities

Kitchener's forward-thinking approach is a model for other municipalities facing similar challenges. The city has welcomed many municipal teams looking to see the technology firsthand and regularly hears from communities hoping to learn from its experience.

"Sharing our experiences, successes, and lessons learned has become an important part of the program's legacy, and we're proud to help other municipalities benefit from what we've learned."

Ian Misheal

Manager of Enforcement, MLEO/CPSO

That peer-to-peer exchange can build confidence and make the path to implementation easier.

"Our visit to Kitchener helped move the conversation around LPR and Ticket-by-Mail from concept to practical application. Seeing the program operating successfully in another municipality provided a real-world example that informed discussions and helped shape Mississauga's approach as we evaluated the technology."

Harpal Singh

IT Client Portfolio Leader, City of Mississauga

"There were a lot of questions when we first started looking at Ticket-by-Mail and AI LPR. Being able to call Kitchener and ask, 'How did you handle this?' made a huge difference. We didn't have to start from zero."

Robert Higgs

Director, Enforcement and By Law Services, City of Brampton





About Kitchener

The City of Kitchener is one of Canada's fastest-growing urban centers. It's located in Ontario, about 100 kilometers west of Toronto and part of the Regional Municipality of Waterloo, along with its "twin city" Waterloo and the neighboring City of Cambridge.

The city's rapidly growing population is straining parking capacity, making efficient management and enforcement crucial to ensure safety, maintain accessibility, and keep traffic flowing smoothly, particularly in busy downtown areas and near schools.

- **City Population:** 292,000 people
- **Metropolitan Population:** 670,000 residents
- **Student Population:** Over 100,000 students in the region
- **Urban Density:** 1,900 people per km²

With our proven track record, your city can be the next success story. Contact us today to discuss how our parking management solutions can benefit your city!



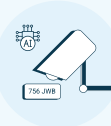
Learn more at
gtechna.com

gtechna USA - 2429
Military Rd. suite 3,
Niagara Falls, NY 14304

gtechna Canada - 7075 Place Robert-
Joncas, suite M101 Montreal, Quebec H4M
2Z2 tel: 866-308-2430



About AI-LPR Technology



AI LPR uses artificial intelligence to support highly accurate license plate detection and identify potential parking violations during patrol.

It can be applied across school zones, on-street parking, bike lanes, loading zones and other complex curb environments.

About Ticket-by-Mail



Ticket-by-Mail connects LPR-supported evidence with automated citation processing and direct-mail delivery. Officers can document and process violations without stopping at the curb, helping municipalities reduce confrontations, expand coverage and simplify administration.

Upgrade Parking Enforcement Faster with Cooperative Purchasing

Cooperative purchasing gives public agencies a faster way to follow the lead of cities like Kitchener.

Rather than launching a standalone RFP, you can use a competitively awarded contract and move more quickly from planning to implementation.

- Competitive solicitation process
- Supplier evaluation
- Contract award process and documentation

Local approvals and purchasing requirements remain in place, but much of the time-consuming procurement work is already complete.

For your city, that means less time navigating the process and more time putting proven technology to work.



canoe
APPROVED SUPPLIER

Skip the RFP. Learn more about cooperative purchasing

