

2024 Annual Report

MOVESMART

MOBILITY MANAGEMENT STRATEGY



MOVESMART

MOBILITY MANAGEMENT STRATEGY



With a focus on improving the municipal road network, enhancing road safety and supporting more cycling and pedestrian infrastructure to create a fully connected and integrated community, MoveSmart positions the City of Vaughan to achieve the strategic goals and objectives set forth by Council.





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Message from the Mayor



At the City of Vaughan, one of our key priorities is to get our city moving, and, with direction from initiatives like MoveSmart and the Action Plan to Fight Traffic Gridlock, we're making significant progress!

The MoveSmart strategy reinforces our commitment to advancing transportation and mobility, while enhancing road safety and supporting sustainable active transportation options like cycling and walking. As our population increases – forecast to rise to more than 407,000 people by 2031 – road safety and effective traffic management will become even more important and require innovative solutions to meet our goals. MoveSmart works alongside other City of Vaughan transportation initiatives, such as the Transportation Master Plan, to build a functioning, efficient and focused interconnected transportation network.

I want to recognize our Public Works teams, who are dedicated to ensuring our city runs smoothly and our residents stay safe. Their achievements continue to receive national recognition for innovative thinking, new best practices and a commitment to delivering Service Excellence. These professionals work hard every single day to make Vaughan the best city it can be, and we are grateful to them.

I also want to recognize the community partners and residents who continue to provide meaningful contributions to the many MoveSmart initiatives underway. Together, we will continue to build the safest, most efficient transportation system in Canada.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steven Del Duca'. The signature is fluid and cursive, written over a white background.

Steven Del Duca
Mayor, City of Vaughan

Message from the City Manager



The City of Vaughan is paving the way for an efficient, reliable, safe and sustainable transportation system for all road users in our growing city.

Whether it's engaging with the public on a traffic study or working behind the scenes to procure and implement a traffic data management system, collaboration is key to MoveSmart's success.

As we look ahead to what this year has in store, I want to thank everyone involved – past, present and future – in bringing this strategy to life.

Thank you,

A handwritten signature in black ink, appearing to read 'Nick Spensieri'. The signature is fluid and cursive, with a long horizontal line extending to the right.

Nick Spensieri
City Manager, City of Vaughan



Message from the Deputy City Manager



I am pleased to present the third annual MoveSmart Mobility Management Strategy report. As our city experiences ongoing growth, the demand for safe, efficient and sustainable transportation options becomes increasingly important.

Staff continue making strides to advance MoveSmart, emphasizing evidence-based decision-making through data and strategic partnerships. We persist in achieving our goals and objectives while discovering innovative ways to engage and educate our residents, enhancing mobility and safety for all road users.

We are proud of the progress we have made in the past year and look forward to continuing to work with our partners, including York Region, York Regional Police, Public Health, York Region and York Catholic District School Boards, partner agencies and local community groups.

We are committed to making the city of Vaughan a more livable, workable and accessible community for everyone.

A handwritten signature in black ink, appearing to read 'Zoran Postic', written over a white background.

Zoran Postic,
Deputy City Manager, Public Works



What is MoveSmart?

Connecting people, places and communities

MoveSmart consists of **four programs**:



ROAD SAFETY PROGRAM

Increase road safety and raise public awareness

- To bring together key stakeholders to keep the city's streets safer for all road users and help foster a road safety culture
- To take a more proactive approach to road safety by using data and proven statistical procedures and identify additional road safety opportunities



MOBILITY MANAGEMENT PROGRAM

Improve efficiency through innovation and technology

- To modernize the City's traffic signals system, providing more efficient traffic flow and link to existing and future technologies
- To ensure pedestrians, cyclists and vehicle traffic continue to move safely and efficiently through signalized intersections and pedestrian crossings using the existing road network



SUSTAINABLE MOBILITY PROGRAM

Support active and sustainable transportation

- To support the development of additional active and sustainable transportation options and ensure that these options focus on the safety of all road users
- To support the expansion of the pedestrian and cycling network through consideration of the operations and maintenance services



TRAFFIC DATA MANAGEMENT PROGRAM

Assure accuracy and availability of traffic data

- To modernize traffic data management with up-to-date traffic data to form the core of the strategy and support data-driven and evidence-based decision-making
- To have traffic data to allow for ongoing tracking of performance of the transportation system over time





ROAD SAFETY PROGRAM

Increase road safety and raise public awareness

2021 / 2022



In-Service Road Safety and Corridor Operational Review

Identify safety measures for priority locations, community areas and corridors



Neighbourhood Traffic and Speed Management Plan

Improve safety and livability of neighbourhoods by calming traffic

2023



Construction Management and Work Zone Safety Plan

Develop guidelines to minimize impacts and maximize safety for construction workers and the public



Road Safety Strategic Plan

Foster partnerships and a data-driven approach for improving safety

2024



Network Screening and Annual Report

Prioritize safety resources for roads and intersections



Automated Speed Enforcement Plan

Use technology for enforcement in school zones and other community areas



Speed Compliance Plan

Address speeding behaviour with feedback to drivers

2025



Low-Cost Safety Countermeasures Plan

Implement low-cost measures such as pavement markings, signage, etc.

2026



Rail Transportation and Safety Plan

Improve mobility while minimizing noise at crossings near residential area



Heavy Traffic and Truck Routing Plan

Manage heavy vehicle and truck transport throughout the city



MOBILITY MANAGEMENT PROGRAM

Improve efficiency through innovation and technology

2021 / 2022



Traffic Signal Control System and Upgrades

Establish a traffic signal control system and upgrade field equipment



Pavement Markings and Signs

Replace and optimize markings and signs



Update Streetlights

Continue LED retrofit with smart adaptive features

2023



Traffic Signal Operations and Maintenance

Maximize the efficiency of traffic signal operations



Curbside Parking Management

Establish parking policies and procedures throughout the city



Traffic By-Law Consolidation

Consolidate the City's road-related by-laws



Intelligent Transportation System (ITS) Strategy and Plan

Establish a roll-out plan for existing and emerging smart mobility technologies

2024



Traveller Information Systems

Generate and present data to support travellers





SUSTAINABLE MOBILITY PROGRAM

Support active and sustainable transportation

2021 / 2022



School Crossing Guards

Manage the City's school crossing guard program



Safer School Zones Plan

Develop and implement safety measures near schools for traffic, pedestrians, and pick-ups/drop-offs



Input into Development Planning

Provide insights to help the City's planning for future development

2023



Pedestrian Infrastructure Enhancement Plan

Optimize and upgrade the City's pedestrian infrastructure



Creation of Community Safety Zones

Develop guidelines to create and operate community safety zones

2024



Cycling Network Expansion

Optimize and upgrade the City's cycling infrastructure



Travel Demand Management Plan

Share insights and decisions for the City's travel demand management plan



TRAFFIC DATA MANAGEMENT PROGRAM

Support active and sustainable transportation

2021 / 2022



Traffic Data Needs Assessment

Identify traffic data requirements to support the MoveSmart Strategy



Traffic Data Management System

Procure and implement a traffic data management system

2023



Traffic Data Services

Enhance the City's traffic data collection programs and contracts



COMMUNICATIONS AND PUBLIC AWARENESS INITIATIVE

Ongoing awareness of tangible benefits through communication and education



MOVESMART

Mobility Management Strategy

MoveSmart: Year Three in Review



In 2023, the City advanced **22** of the **29 initiatives** under MoveSmart, including the following achievements:

- Receiving Council approval for an **Automated Speed Enforcement** program and **Community Safety Zones Policy**.
 - Completing the **Traveller Safety Plan** led by York Region (in collaboration with local municipalities).
 - Undertaking traffic calming pilot projects in five neighbourhoods as part of the **Neighbourhood Traffic Calming Plan**, which will help inform and update the City's policy and speed management plan.
 - Receiving procurement approval for the **Intelligent Transportation System**.
 - Completing six **In-Service Road Safety and Corridor Operational Reviews** (Corridor Reviews).
 - Finalizing the **Safer School Zones Plan** recommendations to support active and sustainable travel initiatives in partnership with local stakeholders.
- Expanding the use of **traffic calming measures** such as pavement markings, flexible signs, speed message boards and tiger tails below stop signs.
 - Advancing the **Network Screening initiative** to align with York Region's Traveller Safety Plan, which assesses the road network to determine road safety improvements.
 - Continuing the consolidation of the City's **Traffic By-law**.
 - Performing proactive **streetlight maintenance** through the adaptive PLANet software system.
 - Developing a framework to inform the selection of **pedestrian crossing facilities**.
 - Expanding data collection and integrating the **Traffic Engineering Software**, a co-ordinated cloud-based data management system facilitating information sharing with York Region and other local municipal partners.
 - Continuing to deliver comprehensive communications and **raise public awareness** of MoveSmart programs and initiatives.



Driving Success



MoveSmart is driving success across the city by:

- creating a foundation for an advanced traffic signal management system, which will enable future innovative technologies to help manage congestion, provide real-time information to travellers, and improve travel and emergency response times.
- establishing a Community Safety Zones Policy with an initial 104 locations to support the City's future Automated Speed Enforcement program.
- demonstrating technological advancements using cloud-based solutions to support data warehousing and sharing across local and regional governments.
- continuing collaboration with universities to advance various road safety and sustainable mobility initiatives such as the Automated Speed Enforcement program and Pedestrian Infrastructure and Enhancement Plan by sharing knowledge, current practices and innovative solutions.
- releasing extensive communications to the public on all MoveSmart initiatives.



- delivering public engagement on several MoveSmart projects, which included:
 - more than **2,090** survey responses.
 - more than **35** virtual and in-person events.
 - more than **30** stakeholder information sessions.

The City also:

- developed three back-to-school videos in collaboration with internal and external stakeholders to reinforce road safety for children and other vulnerable road users and support active and sustainable travel, which were shared across the City's corporate social media channels.
- introduced a virtual resident-focused engagement platform (SitePodium) to support information sharing on road safety initiatives.
- installed two rainbow crosswalks to reflect the City's ongoing commitment to advancing diversity, equity and inclusion.

Road Safety Program

SPOTLIGHT



Corridor Reviews: In 2023, six Corridor Reviews were undertaken to analyze existing and future transportation planning and mobility infrastructure needs. These reviews identified road safety opportunities for those who walk, cycle, take transit or drive within the area. Recommendations included short- and long-term implementation plans to address specific issues identified in each corridor. Below are some highlights:

- Reducing the curb radius to improve safety at all-way stops to manage higher turning speeds.
- Update infrastructure design in compliance with the *Accessibility for Ontarians with Disabilities Act*.
- Improve stop compliance with additional signage and pavement markings and identify seasonal and permanent improvements to address speeding.

- Creating pedestrian crossovers to address previously uncontrolled pedestrian movements where warranted.
- Developing cycling facilities to support safe, accessible and comfortable cycling.
- Enhancing intersections, crosswalks and stopping and parking areas to improve safe school pickups and drop-offs.
- Installing or enhancing hazard markers, such as signage, flashing beacons and chevrons, to enhance safety for all modes of transportation.

Technical Advisory Committees were formed to guide each review, which included internal and external partners. This project will continue in 2024 with new areas.





COMPLETED OR ONGOING

- **Speed Limit Policy:** The City further reduced speeds in five blocks and 15 streets throughout Vaughan's street and continues to identify areas where reduced speeds will be implemented.
- **The Neighbourhood Traffic Calming Plan:** In 2023, traffic calming measures were piloted in five neighbourhoods across Vaughan. Examples of these measures include radar message boards that support customized messaging, in-road flexible posts and silhouettes, pavement markings, curb extensions and temporary rubber speed cushions.



- **Neighbourhood traffic studies:** The City continues undertaking in-depth road safety reviews to identify local issues and opportunities for improvement. These reviews allow the City to prioritize community needs and recommend additional road safety measures and changes to traffic operations and future street designs. City staff recommend these changes through short- and long-term implementation plans to address specific concerns identified within each neighbourhood. The Traffic and Speed Management Study, Napier Street Traffic Study and the Lawford Area Traffic Study included various resident and stakeholder engagement sessions to help inform decision-making.
- **York Region's Traveller Safety Plan:** A multi-agency collaboration encouraging continued innovation in road safety. Recognizing the individual needs and conditions of local partners, the Traveller Safety Plan will establish processes for sharing resources and supporting growth across the region, establish evidence-based decision-making practices, adopt advanced technologies, and establish proactive programs, policies, and guidelines that collectively have the highest impact on road safety.



NEW OR UPCOMING

- **Automated Speed Enforcement:**
An Automated Speed Enforcement program is anticipated to launch in Vaughan by Q4 2024. This program will include 10 mobile speed cameras (two per ward), which will be rotated on a set schedule. Locations will be selected using a data-driven approach.
- **Neighbourhood Traffic Calming Plan:**
The City is updating the existing Neighbourhood Traffic Committee Policy and Procedures. This update includes a toolbox of traffic

calming measures that are context-specific for streets in Vaughan and a plan to continue a state of good repair. The revised policy will be presented to Council in Q3 2024.

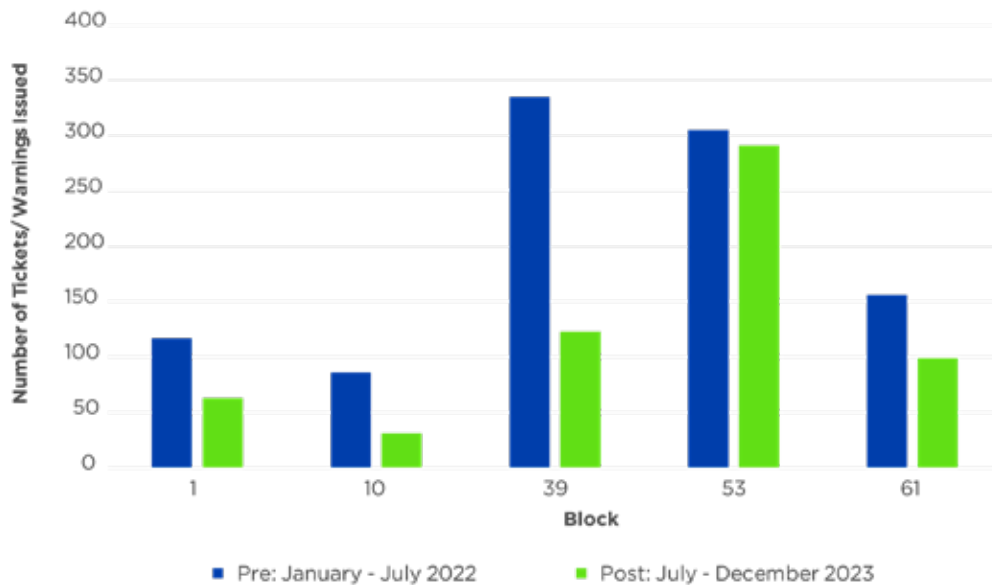
- **Construction Management and Work Zone Safety Plan:** Municipal best practice reviews have been completed. A comprehensive plan is under development with local partners using a phased approach to increase information sharing and develop safety protocols in construction zones and during city-building projects to ensure workers and residents remain safe.



TOTAL SPEEDING TICKETS AND WARNINGS ISSUED IN REDUCED 40 BLOCK LOCATIONS

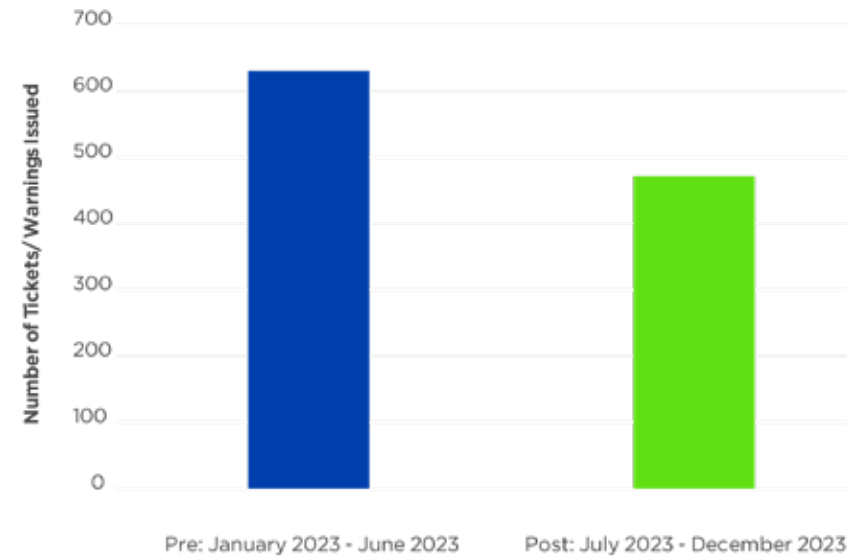
2023 York Regional Police data

Phase One: Speeding tickets and warnings



A **39 per cent decrease** in total speeding and warning tickets in 40 kilometres per hour block locations in Phase One.

Phase Two: Speeding tickets and warnings



A **25 per cent decrease** in total speeding and warning tickets in all 40 kilometres per hour block locations in Phase Two.

Mobility Management Program

SPOTLIGHT



Intelligent Transportation System Strategy and Plan: The City initiated procurement of an Advanced Traffic Management System (ATMS) and equipment upgrades, which will monitor and control Vaughan's 100 traffic signals and signalized pedestrian crossings. This system allows the City to integrate new smart mobility technologies and co-ordinate with York Region's system. Establishing an ATMS will provide future capabilities, including:

- **real-time incident detection** to proactively monitor traffic, identify potential incidents and issue notices to City operators.
- **data-driven decision-making** using advanced data collection technologies to enable responsive and targeted traffic solutions.



- **traffic congestion management** to provide real-time data integration that prioritizes high-volume routes and optimizes travel times across a corridor supporting drivers.
- **improved traffic signal maintenance** to enable the operator to remotely diagnose and dispatch maintenance support from a central location, reducing response times and improving signal maintenance efforts.

- **emergency services pre-emption** to allow onboard systems and traffic light vehicle sensors to give priority access to emergency service vehicles.
- **enhanced road safety** to reduce stops through efficient signal timing, prioritizing vulnerable road users and enhancing system-wide traveller safety.
- **public transit prioritization** through detecting and arranging selected transit vehicles along specific corridors and routes.





COMPLETED OR ONGOING

- **Traffic Signal Control System and Upgrades:** The City has completed two rounds of inspections at 100 traffic signals. Staff continue procurement of the Advanced Traffic Management System and upgrades to traffic signal equipment in the field.

NEW OR UPCOMING

- **Curbside Parking Management Plan:** The Transportation and Fleet Management Services department is supporting By-law and Compliance, Licensing and Permit Services with a Parking Management Strategy. This includes curbside management, which seeks to optimize and manage curb space to maximize mobility, safety and access for the growing variety of curb demands within the city.

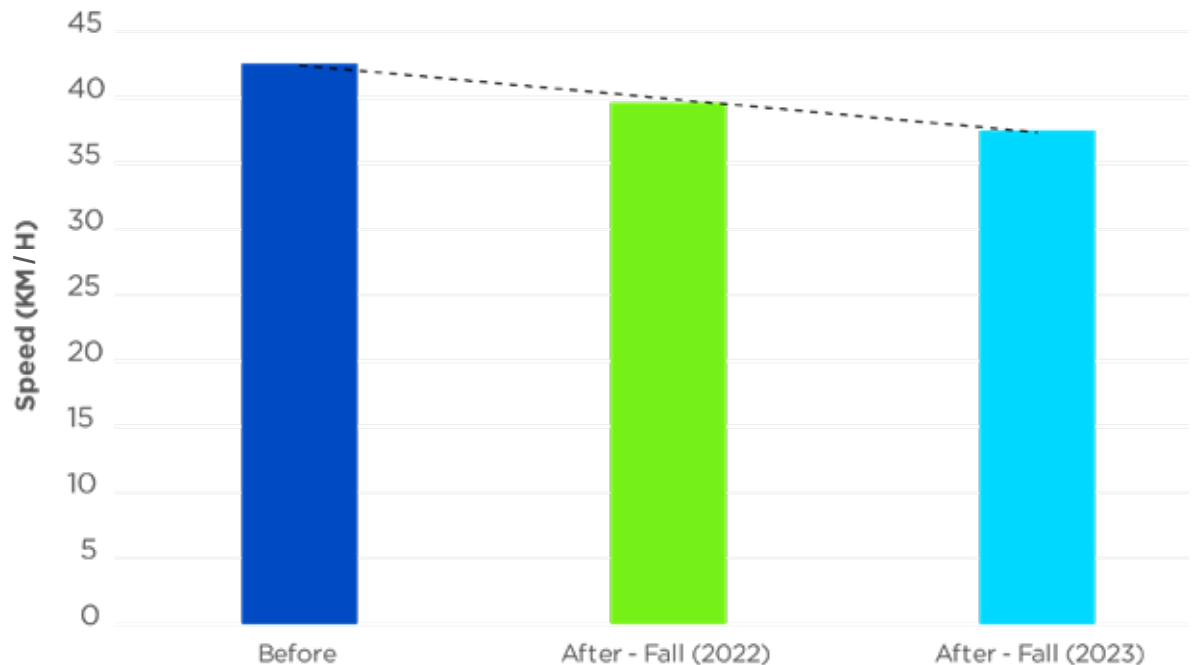


DID YOU KNOW?

In 2023, the City:

- installed **362** flex signs on municipal roads to increase speed compliance.
- installed tiger tails at **12** intersections to enhance stop sign compliance.
- circulated **51** radar message boards across **162** locations to encourage drivers to comply with speed limits.
- serviced and maintained **26,000** City streetlights to provide illumination for safety and accessibility for all road users.
- painted **802,000** metres of new or refreshed pavement markings to guide road users and provide information about the direction of travel.
- implemented **51** ladder crosswalks within school zones to increase visibility of pedestrian crossings.
- completed **238** school crossing guard inspections for health and safety compliance.
- completed **eight** Active School Travel pilot projects, engaging with more than **4,500** students and community members, to encourage active and sustainable travel.
- distributed **7,400** #SlowDownVaughan signs to encourage drivers to slow down.

AVERAGE SPEED RELATED TO VARIOUS TRAFFIC CALMING MEASURES ACROSS VAUGHAN

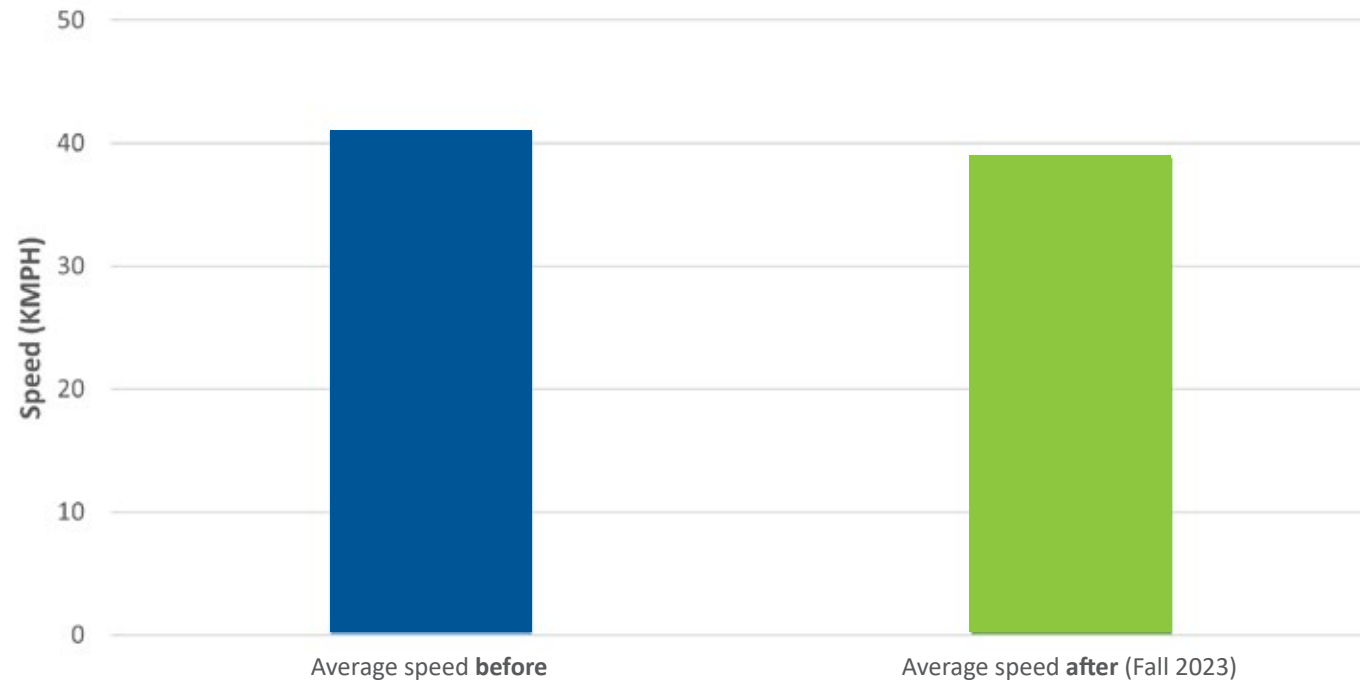


Average speeds have **decreased by five kilometres per hour** after various traffic calming measures were implemented in 40 kilometre per hour neighbourhoods, Active School Travel pilot locations and other locations where traffic calming measures have been implemented.



NEIGHBOURHOOD TRAFFIC CALMING PLAN PILOT

Average speed in pilot locations



Average speed **decreased by five per cent** across pilot locations

Pilot locations:

- New Kleinburg (Ward 1)
- Sonoma Heights (Ward 2)
- Vellore Village (Ward 3)
- Carrville Corners (Ward 4)
- Lakeview Estates (Ward 5)

Sustainable Mobility Program



SPOTLIGHT

Safer School Zones Plan:

The plan will identify key traffic operations concerns impacting active school travel. It will also lead to recommendations for school zone infrastructure improvements and ways to make the City's Active School Travel program more accessible and attractive. The plan will include policies and guidelines that address parking, speeding, traffic circulation, pedestrian and cycling access, and other issues that typically impact elementary and secondary schools.

The Safer School Zones Plan will also identify engagement and educational opportunities to promote and expand Active School Travel amongst elementary and secondary students beyond the pilot phase. City staff continue to work closely with stakeholders, including York Region,

York Catholic District School Board, York Region District School Board, York Region Public Health, York Regional Police, elementary and secondary school principals, and parent councils to explore further opportunities to enhance safety in school zones and bring awareness of the benefits of active and sustainable travel.

A series of stakeholder engagement sessions have been instrumental in shaping the Safer School Zones Plan, allowing school administrations and vested stakeholders to provide feedback on tangible strategies and countermeasures to improve safety for students as they travel to and from school.





COMPLETED OR ONGOING

- **Community Safety Zone Policy:** In December 2023, Council endorsed the City's Community Safety Zones Policy. In 2024, 104 Community Safety Zones will be implemented throughout Vaughan.
- **Pedestrian Infrastructure Enhancement Plan:** A detailed framework will inform the selection of suitable pedestrian crossing treatments based on provincial guidelines and municipal best practices, including design standards for pedestrian crossovers. The City has established a Technical Advisory Committee to provide critical input in developing guidelines, inform current and future state requirements and advance pedestrian mobility access and connectivity.



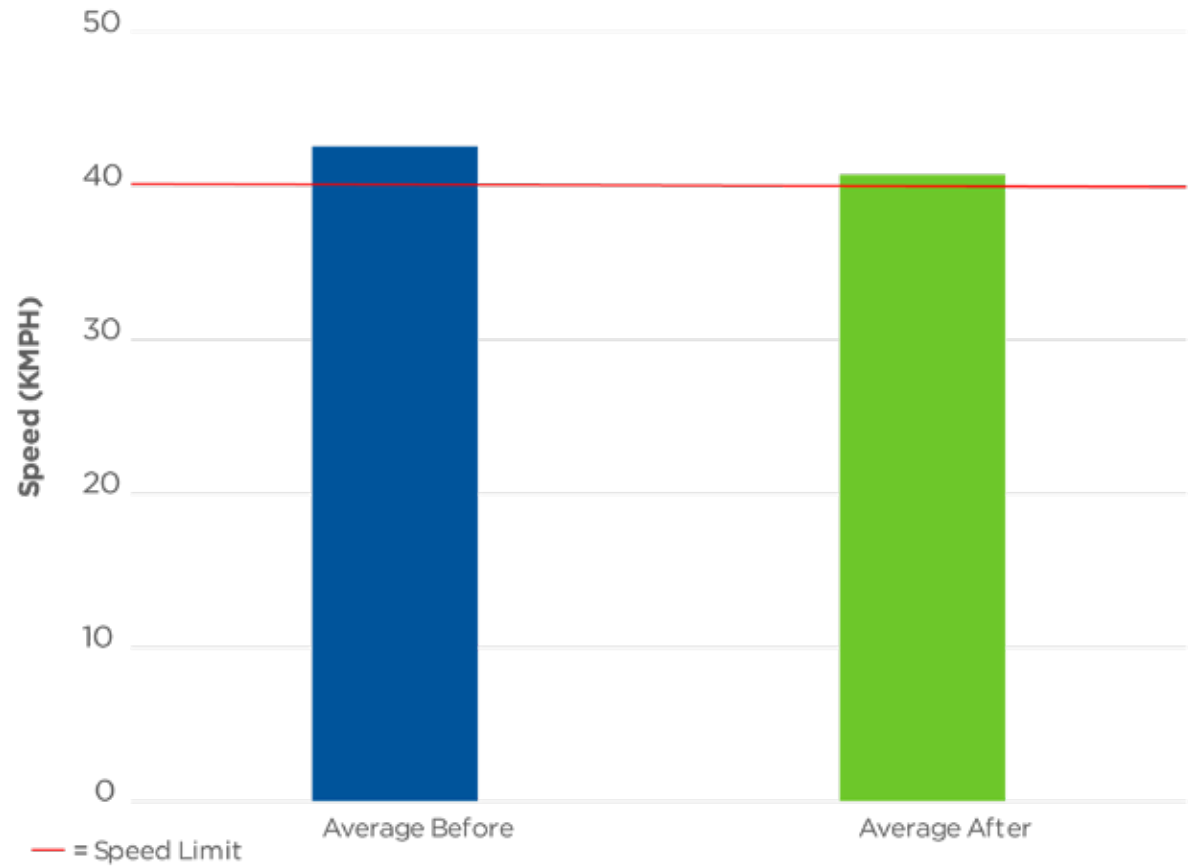
NEW OR UPCOMING

- **Travel Demand Management Plan:** The City's Travel Demand Management Plan will focus on how people travel throughout Vaughan. It will aim to influence behaviour through programs, policies and communications to reduce vehicle trips (particularly during periods of high demand) and promote transit, ridesharing, walking, biking and telework, where feasible.
- **Cycling Network Expansion:** On-going support of Vaughan's Pedestrian and Bicycle Master Plan, which will serve to enhance existing cycling infrastructure and support the introduction of new cycling facilities across the city.





AVERAGE SPEED AT ACTIVE SCHOOL TRAVEL LOCATIONS



Average speeds have **decreased to 41 kilometres per hour** after traffic calming measures were implemented in Active School Travel pilot locations.

Traffic Data Management Program

SPOTLIGHT



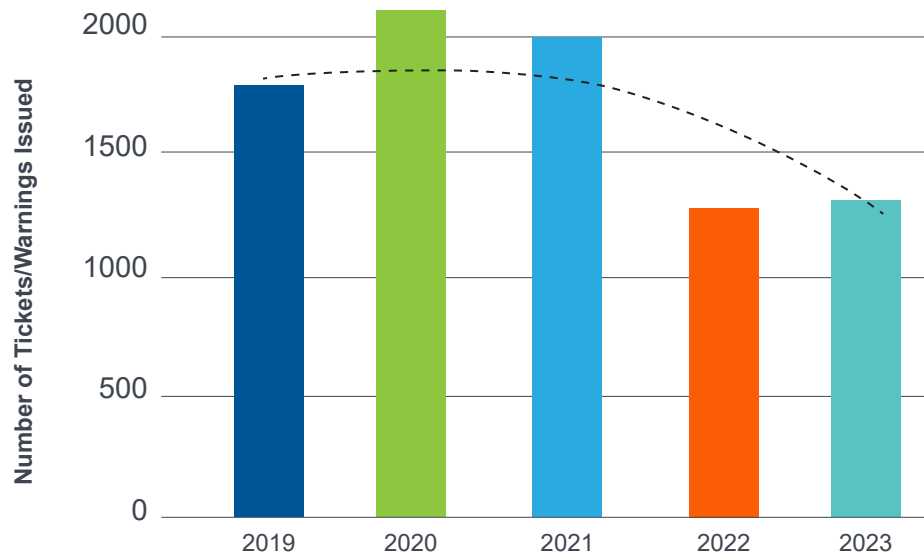
Network Screening: In 2023, Network Screening was advanced to work in parallel with York Region's Traveller Safety Plan. This collaboration provides a system-wide approach to road safety, which includes analyzing recent collisions, traffic and infrastructure data to develop collision prediction models. This proactive approach ensures resources are efficiently allocated, maximizing safety improvements across the road network and contributing to a safer and more secure transportation environment.



SPEEDING AND WARNING TICKETS ISSUED IN AREA 40 KM/H NEIGHBOURHOOD BLOCKS 2019-2023

2023 York Regional Police data

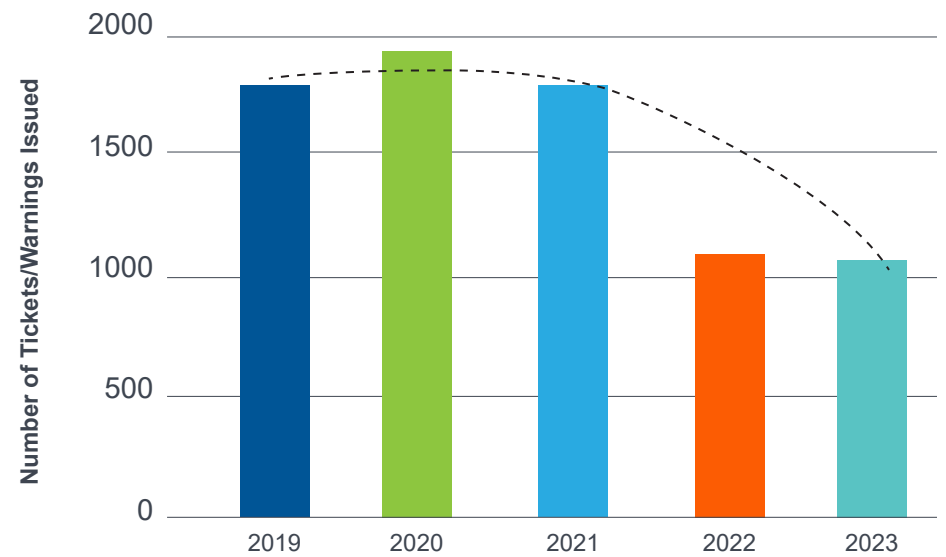
Area 40 **Phase One**: Speeding tickets and warnings



*Speed Limit Policy implemented in 2021

A **26 per cent decrease** in speeding and warning tickets since implementing various traffic calming measures within Phase One of the 40 kilometres per hour neighbourhood block locations.

Area 40 **Phase Two**: Speeding tickets and warnings



*Speed Limit Policy implemented in 2021

A **42 per cent decrease** in speeding and warning tickets since implementing various traffic calming measures within Phase Two of the 40 kilometres per hour neighbourhood block locations.



COMPLETED OR ONGOING

- **Transportation Engineering Software:** The Transportation Engineering Software is a cloud-based and centralized traffic data system implemented to help advance analytics and data sharing between York Region and all local municipalities. Data is easily stored and maintained for reporting and analysis, which improves response times for decision-making in focus areas.

NEW OR UPCOMING

- **Transportation Planning Data Management Strategy:** A Transportation Planning Data Management Strategy is being developed in collaboration with the Infrastructure Planning and Capital Asset Management department to modernize and prioritize data collection and mapping. The plan will identify actions needed to establish a high-quality, multi-modal program that can monitor the progress of various assets and programs, such as MoveSmart and the 2023 Vaughan Transportation Plan. It will assess the overall operational health of the City's transportation system and allow for more data-based decision-making, enhancing Vaughan's ability to grow towards a Smart City with new data collection and management technologies.



Public Awareness Initiatives



Vaughan's residents are helping to steer MoveSmart toward success. A key factor in advancing these important road safety initiatives is working with the public and providing opportunities for residents to have their say on the future of the city's road network.

The achievements realized under MoveSmart are only possible because of the support of residents, as well as internal and external road safety partners, including York Region District School Board, York Region Catholic District School Board, York Region, York Region Public Health, York Regional Police and Vaughan Fire and Rescue Service.



DID YOU KNOW?

According to the City's 2022 Citizen and Business Surveys, resident satisfaction **increased nine per cent** with respect to traffic management (including traffic calming measures and improving traffic flow). The number of residents who are "very satisfied" with traffic management has doubled since 2018, from five per cent to **10 per cent**.

The Communications, Marketing and Engagement department supports MoveSmart with a comprehensive communications approach that includes:

- **Social media messaging** shared with more than **79,000 followers** across the City's four corporate channels.
- **Numerous dedicated webpages** and projects featured on vaughan.ca, which garners more than **two million** visits annually.
- **Digital sign network**, garnering more than **30,000 impressions daily** or more than **100 million impressions annually**.



ROAD SAFETY PROGRAM



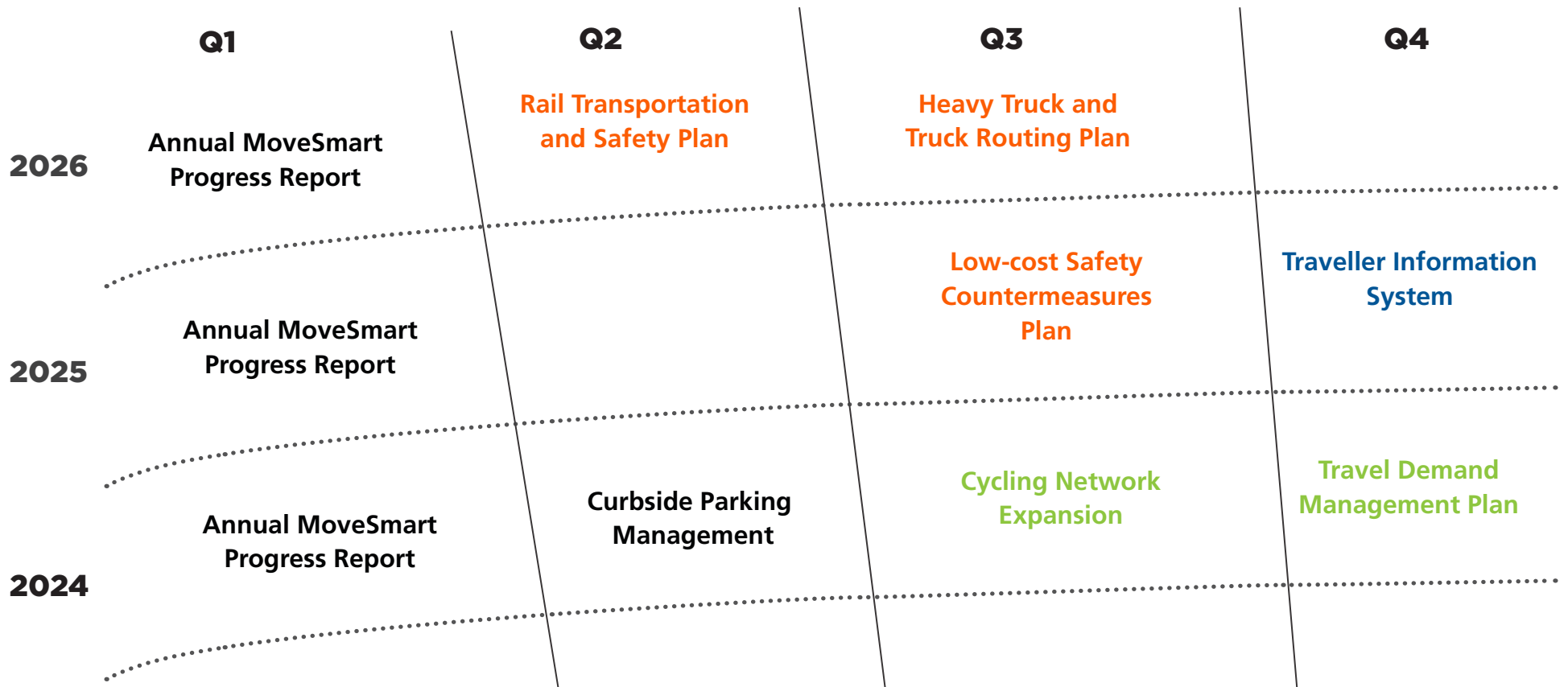
MOBILITY MANAGEMENT PROGRAM



SUSTAINABLE MOBILITY PROGRAM



TRAFFIC DATA MANAGEMENT PROGRAM



Moving Forward



MoveSmart is a prominent strategy, implementing road safety and mobility management improvements through collaboration, design, application, and progressive policies and processes. At the end of its third year, MoveSmart is now positioned to rely on evidence-based data and key performance indicators to support decision-making and to evaluate traffic countermeasures and safety enhancements to ensure they remain effective throughout the road network.

The strategy remains committed to establishing a road-safety culture by developing initiatives that foster strong and purposeful partnerships, transparent information sharing, education and engagement opportunities, sound data collection methods and defined program management practices.

The City continues to have a common vision: to create a more accessible, sustainable, and healthier road network where everyone is responsible for contributing to road safety today and for generations to come.





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