



**CITY OF VAUGHAN
COMMITTEE OF THE WHOLE (WORKING SESSION)
AGENDA**

This is an Electronic Meeting. The Council Chamber will not be open to the public. Public comments can be submitted by email to clerks@vaughan.ca. If you wish to speak to an item listed on the Agenda, please pre-register by contacting Access Vaughan at 905-832-2281 or clerks@vaughan.ca by noon on the last business day before the meeting.

Wednesday, March 3, 2021

9:30 a.m.

Council Chamber

2nd Floor, Vaughan City Hall

2141 Major Mackenzie Drive

Vaughan, Ontario

Pages

- 1. CONFIRMATION OF AGENDA**
- 2. DISCLOSURE OF INTEREST**
- 3. COMMUNICATIONS**
- 4. PRESENTATIONS**
- 5. DETERMINATION OF ITEMS REQUIRING SEPARATE DISCUSSION INCLUDING MEMBERS RESOLUTION(S)**
 - 1. MOVESMART - MOBILITY MANAGEMENT STRATEGY**
Report of the Deputy City Manager, Public Works with respect to the above.
- 6. ADOPTION OF ITEMS NOT REQUIRING SEPARATE DISCUSSION**
- 7. CONSIDERATION OF ITEMS REQUIRING SEPARATE DISCUSSION**

3

8. CONSIDERATION OF STATUTORY / AD HOC COMMITTEE REPORTS
9. STAFF COMMUNICATIONS
10. NEW BUSINESS
11. ADJOURNMENT

ALL APPENDICES ARE AVAILABLE FROM THE CITY CLERK'S OFFICE
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AND VIDEO BROADCAST

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Committee of the Whole (Working Session) Report

DATE: Wednesday, March 03, 2021

WARD(S): ALL

TITLE: MOVESMART - MOBILITY MANAGEMENT STRATEGY

FROM:

Zoran Postic, Deputy City Manager, Public Works

ACTION: DECISION

Purpose

To seek Council endorsement of MoveSmart - Mobility Management Strategy highlighting Council's commitment to citizens and business owners to provide a transportation system that is safer, more efficient, and sustainable in support of the 2018-2022 Term of Council Service Excellence Strategic Plan.

Report Highlights

- Vaughan continues to experience growth in population and employment, resulting in increased travel demand and pressure on the City's transportation system.
- MoveSmart – Mobility Management Strategy is a five-year plan supporting Council's commitment to transportation and mobility across the City for all users.
- The strategy will deliver:
 - A Road Safety Program that brings together internal and external stakeholders to keep the City's streets safer for all road users and promote a road safety culture.
 - A Mobility Management Program to modernize the City's traffic signals system, providing more efficient traffic flow and prepare for the future.
 - A Traffic Data Management Program with up to date traffic data to form the core of the Strategy and support data-driven and evidence-based decision-making.
 - A Sustainable Mobility Program to support the development of more active and sustainable transportation options and ensure that these options focus on the safety of all road users.
- Status and progress updates will be provided to Council annually

Recommendations

1. That Council endorse the MoveSmart - Mobility Management Strategy as generally described in Attachment No.1; and
2. That the City Clerk forward a copy of this report to York Region, York Region's Local Municipalities, York Regional Police, York Region District School Board, York Region Catholic School Board, Metrolinx, and the Ministry of Transportation

Background

Vaughan's population is forecast to grow by more than 20% over the next 10 years increasing travel demands across the City

Vaughan is one of Ontario's fastest growing municipalities with a current population of 330,000 people and is forecast to grow to 416,000 by 2031. Jobs are forecast to grow from 226,000 in 2014 to 266,100 jobs by 2031.

The Vaughan Metropolitan Centre is an identified Urban Growth Centre in the Province's Growth Plan. Further there are intensification areas across the City such as the Promenade Centre Secondary Plan, Weston Road and Highway 7 Secondary Plan, and Concord GO Centre Secondary Plan.

With population and employment growth, the number of daily trips made by Vaughan citizens and visitors have increased significantly over the last 25 years and will continue to increase, putting pressure on the City's transportation system. Vaughan citizens have expressed that they are experiencing this pressure directly, as 59% of the 2018 Citizen Satisfaction Survey respondents said transportation is the most important issue facing their community.

Increases in travel demand on mobility infrastructure, without a holistic strategy can lead to misaligned or piecemeal initiatives

Operational challenges routinely arise from growing congestion, competing land uses and the introduction of alternative road uses as demographics change. Nevertheless, Vaughan citizens maintain an expectation for a high level of safety on City streets.

To meet the needs of citizens as they travel, historically, staff have responded to issues as they arose, solving the immediate issue, however, positive results in one area can result in unintended impacts elsewhere. To help manage and build on current ongoing efforts to become more proactive, staff have developed MoveSmart – Mobility

Management Strategy (MoveSmart). MoveSmart consists of programs and initiatives designed to provide consistent, reliable, and safer streets for all road users supporting the economy and future prosperity of the growing City.

MoveSmart is a five-year plan to achieve the City’s aspirational goal to be a fully connected and integrated community

MoveSmart is a five-year capital and operational plan setting direction to advance the City’s transportation goals and is founded on three pillars: safety, sustainability, and mobility. Its objectives include the following:

- Provide a framework for collaboration with internal and external partners and to engage Vaughan citizens,
- Define a set of goals for transportation encompassing community values and identifying a plan to address the City’s mobility needs in an effective, responsible, and sustainable manner; and
- Identify opportunities for a more balanced approach to transportation including the most vulnerable road users.

Investing in mobility across the City, integrating the needs of many stakeholders, ensures benefits are maximized

MoveSmart was developed in co-ordination with the City’s partners and stakeholders to ensure it reflects a collaborative approach and is conducive to partnerships. The exercise started with reviewing existing operations practices, interviewing internal stakeholders, and attending several technical stakeholder advisory committee meetings that included City departments, York Regional Police, Vaughan Fire and Rescue Service, Public Health, School Boards, and York Region Transportation Services.

MoveSmart is directly aligned with the vision and goals set out in the City’s Official Plan, Vaughan Transportation Plan and the Pedestrian and Bicycle Master Plan.

Feedback from the public was used to inform the development of MoveSmart as transportation and traffic remain top of mind for Vaughan citizens

Staff heard from the public through outreach activities in 2019. This included face-to-face conversations and interactions with Vaughan citizens, surveys, public meetings, facilitated discussions, and pop-up community events. More than 1,700 participants were engaged across all five wards. Feedback was analyzed to find key themes in what was shared; this information helped form the priorities of MoveSmart.

Transportation and traffic remain top of mind for Vaughan citizens. Improving road safety as people travel resonates strongly with Vaughan citizens. The community expressed a clear desire for the City to manage congestion through policy, planning, infrastructure upgrades, and leveraging the best and latest technologies and tools. Citizens want efficiency, safety, reliability, quality of life, and accessibility. They recognize road safety as a shared value and with shared responsibility – Think Safe, Act Safe, and Be Safe.

Previous Reports/Authority

Vaughan Official Plan:

https://www.vaughan.ca/projects/policy_planning_projects/official_planning_2010/Pages/default.aspx

Green Directions:

https://www.vaughan.ca/cityhall/environmental_sustainability/GreenDirections/Pages/Green-Directions-Vaughan.aspx

School Crossing Guard Program Review and Policy Update:

<https://pub-vaughan.escribemeetings.com/filestream.ashx?DocumentId=53199>
<https://pub-vaughan.escribemeetings.com/filestream.ashx?DocumentId=53204>

Pedestrian and cycling master plan:

https://www.vaughan.ca/projects/projects_and_studies/pedestrian_master_plan/Pages/default.aspx

Active Travel Charter for Canadian Children and Youth:

https://www.vaughan.ca/council/minutes_agendas/AgendaItems/CW0226_13_8.pdf

Analysis and Options

MoveSmart is focused on four programs directly aligning with its vision statement

MoveSmart is the City's first holistic mobility management strategy. The vision set in the strategy is to provide "*a transportation system that is safer, more efficient, and sustainable*".

Through development and implementation, the strategy's initiatives bring life to the vision statement and can be categorized into four over-arching programs. These programs and a brief description are outlined below:

1. **Road Safety Program**, taking a more proactive approach to road safety by using data and proven statistical procedures to identify opportunities to improve road safety and bring together stakeholders to collectively make the biggest safety impacts for all road users. Safety programs have existed for nearly 30 years, creating a wealth of knowledge, research and procedures that can be expanded in Vaughan to make evidence-based decisions and convey convincing messages that resonate with the public. The objective is to foster a road safety culture, inclusive of the community.
2. **Mobility Management Program**, designed to ensure pedestrians, cyclists, and vehicle traffic continue to move safely and efficiently through signalized intersections and pedestrian crossings leveraging the existing road network. Inefficient signal operations can account for more than 10 percent of all traffic delays and result in congestion and queuing. In support of the traffic signal system, the City will need to replace many of its aging traffic signal field controllers as many are reaching the end of their design life. New controllers offer far more capabilities and will operate more reliably. Traffic signals will also form the link to existing and future technologies such as pedestrian and cyclist detection, connected vehicles, and traveler information.
3. **Traffic Data Management Program**, to continually and systematically collect data will provide timely traffic information assisting in making evidence-based decisions for operations, maintenance and planning of the network. Data will also allow for ongoing tracking of performance of the transportation system over time.
4. **Sustainable Mobility Program**, to support the expansion of pedestrian and cycling networks, making more active and sustainable transportation options available for citizens. These options will prioritize the safety of all road users within a well-integrated connected transportation network.

MoveSmart is summarized in Attachment 1.

Success of road safety programs rely on partnerships between road users, other stakeholders and the City, each doing their part

For MoveSmart to be successful, it is important engineering, education and enforcement are integrated into the programs and their associated initiatives; further highlighting the importance of each stakeholder, their role and ability to understand how they can, and are expected to, contribute to the strategy's success.

How each party fits into the success of the program and the parts they play will be shared with them through an overarching communication and education plan. This will be developed to compliment the four programs outlined in the strategy. In the case of road users, it will focus on shifting driver, cyclist and pedestrian behaviour by fostering a road safety culture.

The strategy compliments and supports many City strategic objectives and programs outlined in the 2018-2022 Term of Council Service Excellence Strategic Plan including City building, Active and Safety Communities, Environmental Stewardship, Economic Prosperity, Citizen Experience, and Operational Performance.

Implementing initiatives under MoveSmart will provide citizens and business owners with improved levels of service aligning with City Transportation Plans.

The strategy is intended to be a live document, reviewed, and updated every five years together with the Vaughan Transportation Plan, Pedestrian and Bicycle Master Plan and other relevant documents to ensure it remains relevant in addressing the City's transportation needs and priorities. Progress on the strategy will be reported to Council annually.

Implementation of MoveSmart is currently planned to take place over the next five years, however, this can be accelerated under the right conditions

MoveSmart's implementation is planned to take place over a five-year period, with its foundational programs beginning in 2021. The program schedule was developed recognizing some plans and services will depend on the successful completion of others. For example, the traffic data management system must be one of the first initiatives because it supports many of the other programs.

The true value of MoveSmart will be realized through leveraging interconnections between initiatives. Despite these dependencies, the strategy has been developed to provide flexibility to accelerate, thereby taking advantage of opportunities as they present themselves or adjusting to longer timelines, if needed, particularly related to accommodate availability of capital and operating funds.

Financial Impact

A capital investment of nearly \$8 million will be required to implement MoveSmart

The cost to develop and implement the strategy is estimated at \$1-2 million per year for a total of \$7.9 million in capital over the next five years, as shown in Table 1.

Table 1: Estimated Capital Costs

Year	Capital (\$M)
2022	\$2.4
2023	\$2.2
2024	\$1.1
2025	\$1.1
2026	\$1.1
Total Estimated Funding	\$7.9

Annual operating costs will increase from \$2.4 million in 2021 to \$3.7 million in 2026 to support the programs and initiatives to support MoveSmart

The estimated annual operating costs for MoveSmart are outlined in Table 2. The estimated cost of \$2.8 million listed for 2022 represents a \$400,000 increase over the approved 2021 operating budget.

Table 2: Estimated Annual Operating Costs

Year	Total Operating Cost (\$M)	Change in Operating Cost (\$M)
2022	\$2.8	+0.4
2023	\$3.3	+0.5
2024	\$3.5	+0.2
2025	\$3.6	+0.1
2026	\$3.7	+0.1

Requests for capital and operating funding to bring MoveSmart to life will be considered as part of the annual budgeting process and evaluated against other City priorities.

Staff will continue to investigate and consider alternative funding sources and efficiencies to help reduce incremental budget impacts

Although estimates were established using information and experiences from other agencies and industry knowledge who have implemented similar programs and strategies, they are subject to change as the programs develop and integrate Vaughan specific constraints/opportunities and specific input from stakeholders. Estimates included as part of the strategy are currently at a planning level and will be further

refined for specific projects and initiatives. These estimates will inform future capital and operating budget requests.

In addition, support for the strategy and its initiatives, as they are developed from plan to implementation, is expected to require additional staffing resources in the order of 16 full time employees over five years.

Staff will continue to explore and utilize grant opportunities, partnerships, and alternative funding sources, to fund the strategy.

Broader Regional Impacts/Considerations

Since the City's transportation system is integrated with Regional systems and adjacent to those of the other local municipalities, it is critical MoveSmart is implemented in concert with these key stakeholders. Furthermore, York Regional Police, York Region School Boards, along with City Departments will be important partners as the strategy is implemented. From a broader perspective, Metrolinx and the Ministry of Transportation will continue to be important stakeholders as they move people and goods into and out of the Region.

Conclusion

Travel demand continues to increase in Vaughan as population increases, and the economy grows. The City's transportation system is in a state of expansion and transition with more urbanization taking place. Transportation and traffic remain top of mind for Vaughan citizens.

MoveSmart is the City's first integrated Mobility Management Strategy and sets a vision to provide "a transportation system that is safer, more efficient, and sustainable". The strategy is a five-year capital and operational plan, founded on three pillars: safety, mobility, and sustainability. The programs in the strategy give life and shape to this vision.

Staff recommend Council endorse MoveSmart – Mobility Management Strategy to set the City's direction to be a fully connected and integrated community by improving transportation and mobility to connect people, places, and communities.

For more information, please contact:

James Steele, Acting Director of Transportation and Fleet Management Services

Attachments

1. MoveSmart – Mobility Management Strategy Executive Summary

Prepared by

Margie Chung, Manager of Traffic Services, 6173

Approved by



Zoran Postic,
Deputy City Manager, Public Works

Reviewed by



Jim Harnum, City Manager



Executive Summary

MOVESMART

Mobility Management Strategy



THE NEED FOR A MOBILITY MANAGEMENT STRATEGY

The City of Vaughan continues to see substantial growth. By the year 2031, the population is projected to increase by 36 per cent from that of 2016, while jobs are expected to grow by 18 per cent in the same period. This growth is a continuation of the trend experienced leading up to 2016 and reflects a vibrant economy and a prosperous community.

With such high population and employment growth, the number of daily trips made by Vaughan citizens and business owners, and external trips made in and out of Vaughan, is expected to continue to increase over and above the rapid increases experienced in the last 25 years. This expansion creates many operational challenges on the City's roads, including increasing congestion and potentially more conflicts between vehicles, cyclists and pedestrians. Despite these challenges, **high levels of service are expected from Vaughan's citizens.**

In response to this expectation, the City has developed a Mobility Management Strategy. This Strategy was extensively guided from input received from the public through a 2019 outreach program. The key objectives of the engagement plan were to inform and engage the Vaughan community about the Strategy, and to gather input on travel and road safety priorities and values. Over 1,700 people were engaged in the outreach program providing the City with a wealth of information on the transportation priorities for the public.

The results of the outreach program were combined with a reflection of existing traffic operations services and programs, consideration of proactive practices from other jurisdictions and a look forward to technologies and the disruptive changes expected in the Transportation sector. The Mobility Management Strategy emerged from the combination of these considerations when tailoring them specifically for the needs of the City of Vaughan.



THE VISION AND GOALS OF THE MOBILITY MANAGEMENT STRATEGY

The vision of the Mobility Management Strategy is to **provide a transportation system that is safe, efficient, and sustainable**. It is recognized that this vision requires collaborative efforts between both internal and external stakeholders. The Mobility Management Strategy forms a road map for these efforts and encourages other dedicated partners to assemble, work together and continue delivering efficient traffic services.

Over the next five years, the proposed Mobility Management Strategy will serve Vaughan’s citizens with:



Roads and trails influenced by a world-class safety program – Road Safety Program

Over the last two decades, road agencies across the world have continued to endorse road safety procedures that identify locations with the highest potential to improve safety and make targeted changes, reducing road-related collisions. The Safety Program will work towards a Vision Zero goal by bringing together partners and stakeholders to integrate these procedures and safety knowledge into the City’s roads and trails and by **fostering a culture of road safety with Vaughan’s citizens**.

Reliable trip times through the City – Mobility Management Program

Most people in Vaughan have experienced the routine congestion that forms daily on our roads. Traffic congestion is a symptom of a vibrant economy. Nonetheless, most find it frustrating when traffic moves slower than expected. The mobility management program is designed to **manage congestion, coordinate construction projects and get the most from our existing road network**.

A high return to Taxpayers – Traffic Data Management Program

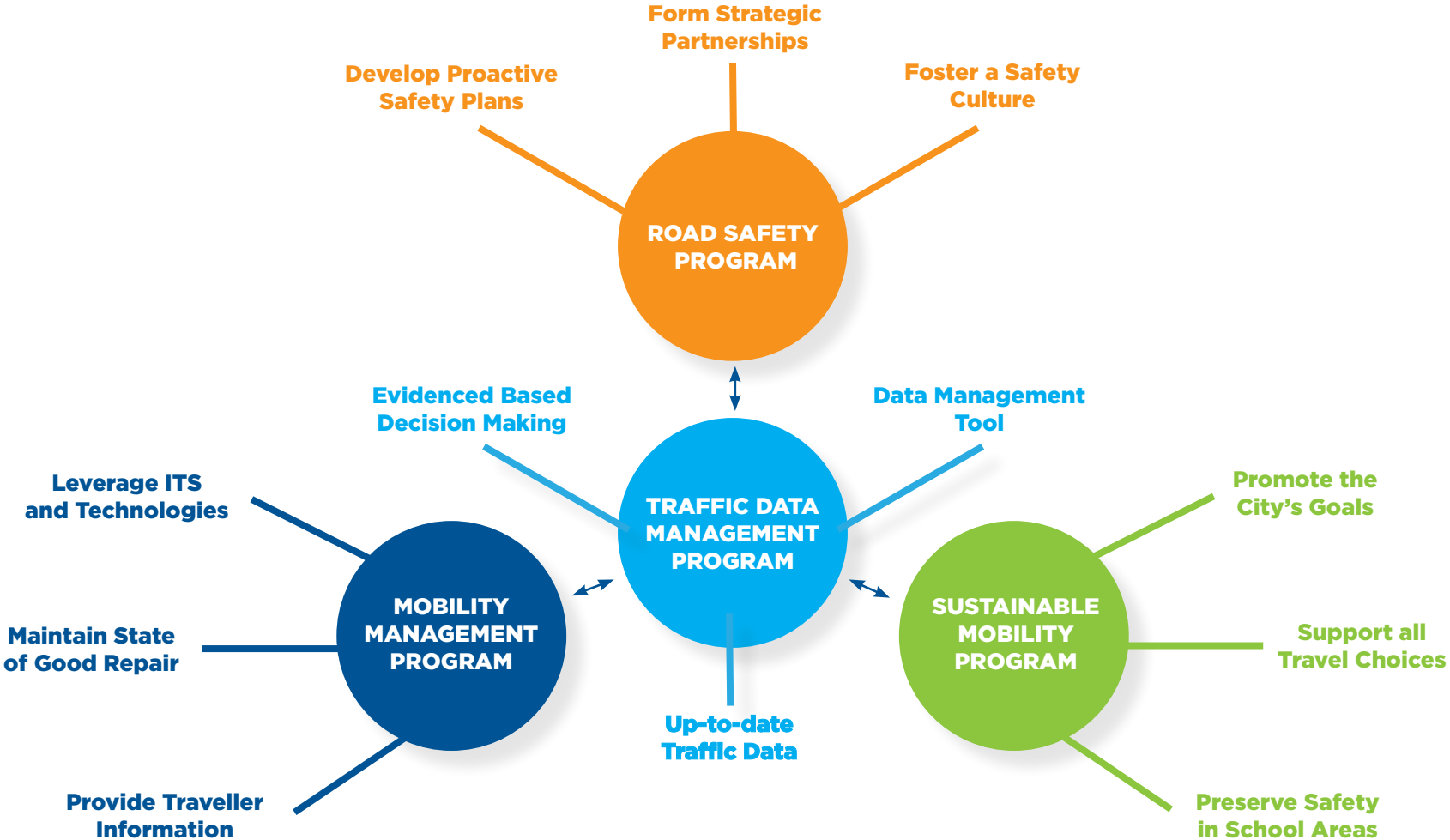
The citizens of Vaughan expect their tax dollars to be spent wisely and for City staff to be accountable for their actions and decisions. Traffic data allows the City to make **evidence-based decisions and assess the effectiveness of changes on the roadways**. The traffic data management program will improve the efficiency with which traffic data is collected, analyzed and reported.

Practical choices to drive, ride or walk – Sustainable Mobility Program

A connected network of roads, bicycle lanes and trails will provide the citizens of Vaughan with **transportation choices and promote a higher quality of life** for many people.

THE MOVESMART MOBILITY MANAGEMENT STRATEGY

The MoveSmart Mobility Management Strategy consists of four programs that support each other. The interrelationships are illustrated in the diagram below.



At the core of the strategy is the Traffic Data Management Program. This program includes the acquisition of a traffic data management tool. The tool will interface with data collection devices and will have the ability to assess and analyze the data so that the City can make evidenced base decisions. In this way, the traffic data management program provides support to the other programs.

The Road Safety Program will establish a proactive approach to road safety. To achieve this approach, it will encourage partnerships with other agencies to collectively address safety issues and concerns. These agencies include the York Regional Police, York Region, neighbouring municipalities, advocacy groups and others. Through this group, messages can be developed collectively to provide a louder voice, show agency coordination to tax-payers and encourage a safety culture with the public.

The Mobility Management program will acquire the traffic control systems, equipment and procedures to manage traffic and congestion. The traffic signal control system is a key element of this program, which will not only help to monitor and control the City's traffic signals, but can form a portal to integrate future technologies such as connected and autonomous vehicles, traveller information and a whole host of road related sensors.

The Sustainable Mobility Program will provide support to sustainable modes of transportation including walking and micro-mobility options (existing and emerging). The MoveSmart Mobility Management Strategy will share insights into the pedestrian and cycling planning processes and assure the operations and maintenance of the infrastructure needed for all travel choices. It will also consider the safety around the City's many schools, and promote the greater goals of the City as mentioned previously.

There are 29 initiatives in all, as shown on the following pages.



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 behavior with feedback to drivers

2025



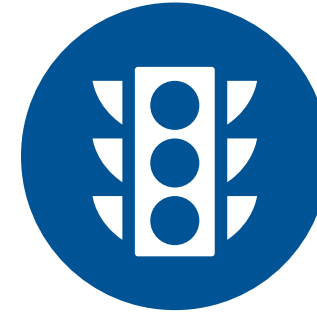
Low-Cost Safety Countermeasures Plan
Implement low-cost measures such as pavement markings, signage, etc.



Rail Transportation and Safety Plan
Improve mobility while minimizing noise at crossings near residential areas



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 & Upgrades
Establish a traffic signal control system and upgraded 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



TRAFFIC DATA MANAGEMENT PROGRAM

Assure accuracy and availability of traffic data

2021/2022



Traffic Data Needs Assessment
Identify traffic data requirements to support the MoveSmart Strategy

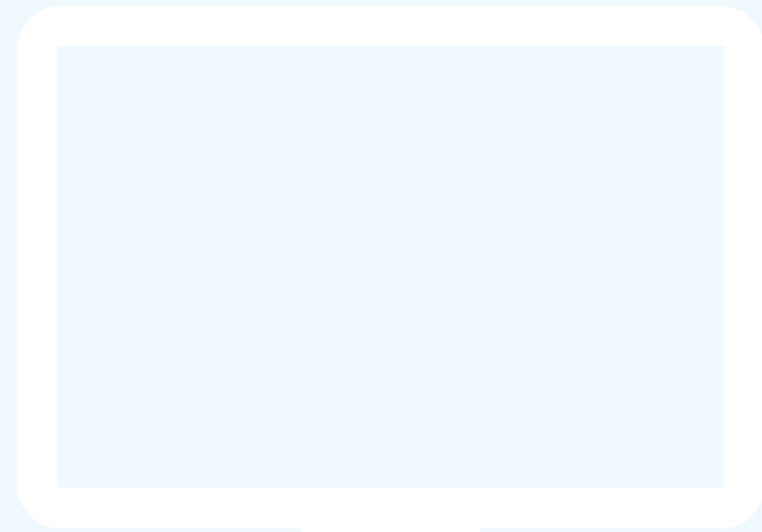


Traffic Data Management System
Procure and implement a traffic data management system

2023



Traffic Data Services
Enhance the City's traffic data collection programs and contracts



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



Timelines

The implementation of the initiatives will take place over the five year period (2022 to 2026) with the foundation for the Strategy being set in 2021. The timeline outlines the recommended sequence of activities for all four programs and the associated plans and services. The timeline was developed to recognizing that some plans and services are pre-requisites for others.

Costs and resources

The costs and resources are shown in the figure on the right for each year of the Strategy. To deliver the initiatives in the MoveSmart Mobility Management Strategy, additional funding and staff will be required to bring the strategy to life. Note, the Strategy is designed to accelerate if new opportunities present themselves or can adjust to a longer timeline if needed. However, the services associated with the initiatives are dependent on the availability of capital and operating budgets, and staff.

Program monitoring

A set of potential key performance indicators (KPIs) have also been developed to monitor and evaluate the effectiveness of the Strategy throughout its five-year lifespan (as listed in the Mobility Management Strategy report). Monitoring and evaluating the Strategy will be an ongoing task, and the KPIs will be used to identify the overall success of the Strategy.





KPMG

TTC SUBWAY ↓

Highway 7

