MISSISSAUGA

Fire & Emergency Services

2021–2024 Business Plan
& 2021 Budget

Foreword

Our Vision for the Future

Mississauga will inspire the world as a dynamic and beautiful global city for creativity and innovation, with vibrant, safe and connected communities; where we celebrate the rich diversity of our cultures, historic villages, Lake Ontario and the Credit River Valley. A place where people choose to be.

Mississauga City Council approved Our Future Mississauga; a Strategic Plan to achieve this vision over a 40-year timeframe. The City engaged over 100,000 people to develop this Vision Statement. To achieve this vision the City has identified five Strategic Pillars for Change: **move**, **belong**, **connect**, **prosper**, and **green**. Each year the City proposes various initiatives that are aligned with the Strategic Pillars and are intended to bring us closer to fulfilling our vision for the future. The City delivers over 300 services which are consolidated into 16 Service Areas (including the Stormwater Program) that are outlined in this Plan. The 2021-2024 Business Plan and 2021 Budget document details how and where the City plans to allocate resources to deliver programs and services.

The City is committed to providing programs and services cost effectively. In this Plan we have outlined measures that will help assess the quality, efficiency and customer satisfaction that our services achieve. The results help inform decisions on resource allocations and direct program offerings, and improve service delivery to ensure our vision is efficiently realized.

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Executive Summary of Fire & Emergency Services

Mission: To protect life, property, and the environment in Mississauga from all risks through education, enforcement, engineering, emergency response and economic incentive.

Services we provide:

- Public Education
- Code Enforcement
- Fire Plans Examination
- Emergency Dispatch
- Emergency Response
- Fire Cause Determination

Interesting facts about this service:

- Responded to 384 fires in 2019
- 52 per cent (or 198) of fire responses met the industry response time target
- Commenced 138 proactive high-rise and mid-rise fire safety inspections
- Opened first new fire station in 15 years (Fire Station 120) at Hurontario & Eglinton
- Public Education team is actively creating fire safety programing and messaging that can be delivered virtually

Highlights of the Business Plan include:

Execution of the Fire Master Plan that comprises the following:

- Risk-based targeted public education programs
- Risk-based proactive fire and life safety inspection programs
- Construction of new fire stations to mitigate eroding response times
- Continuation of the Infrastructure Renewal Strategy
- Development and delivery of staff certification based on National Fire Protection Association (NFPA) standards

Net Investment ($000s)	2021	2022	2023	2024
Operating	121,979	131,764	140,910	146,874
Capital	11,509	15,664	20,691	15,509
Full Time Equivalents	768.0	782.0	828.0	828.0

Core Services

Vision, Mission, Goals of Service and Service Delivery Model

The service delivery model is built to support the programming and deployment of resources required to reduce, mitigate or eliminate community risk as it relates to fire and emergency services.

Vision

To be a global leader in Fire Service and Life Safety excellence.

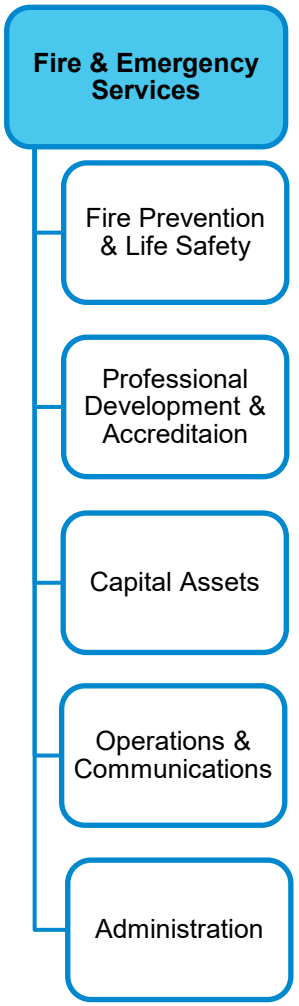
Mission

To protect life, property and the environment in the City of Mississauga from all risks, through education, enforcement, engineering, emergency response and economic incentive.

Goals of Service

- Reduce community risk
- Increase and improve fire and life safety public education programming
- Prioritize proactive fire safety inspections based on risk
- Establish a robust long-term infrastructure renewal strategy
- Align all staff development programs with recognized industry professional standards

Service Delivery Model



Response to COVID-19

Fire & Emergency Services is an essential service and has continued to provide full services throughout the course of the pandemic.

Where possible, staff are working from home: however, much of the service Mississauga Fire & Emergency Services (MFES) provides is based on emergency response and requires personnel to be available at all times. The way front-line staff work has changed, but the 670+ front-line firefighters and communications (dispatch) staff remain committed to providing uninterrupted service.

The spring recruit class, which is typically delivered in-person with several hands-on components, was modified and adapted for online delivery.

Fire safety inspectors continued to meet mandatory Ontario Building Code inspections and legislated building permit review timelines.

Many safety protocols had to be updated to reflect changes to emergency response.

Changes to Protocols:

- Updated Standard Operating Procedures related to personal protective equipment (PPE) requirements
- Modified deployment model for certain types of calls to minimize exposure where possible
- Initiated sign-in and sign-out protocols at every fire station to support contact tracing in the event of an infection
- Required masks to be worn in the fire truck on the way to a call as physical distancing is not possible
- Conducted deep cleaning in stations where infections were suspected

Challenges:

- PPE was difficult to procure
- Firefighters had to switch to wearing Self Contained Breathing Apparatus (SCBA) for medical calls in place of N95 masks to protect both themselves and the public
- The number of medical calls increased, making the possibility of exposure higher for front-line staff
- Some planned programming such as proactive inspections and public education had to be delayed to support budget constraints

Showing appreciation for front-line hospital workers

Service Levels and Trends

Age Risk

Seniors (age 65 and over) statistically represent one of the highest fire risks. They account for a much higher percentage of fire fatalities in residential occupancies than their age group accounts for in the population (see table below).

People aged 50-64 represent a future risk. The 55+ age group currently accounts for 27 per cent of the City's population. Growth projections show this age group increasing to 45 per cent by 2031.

Residential Fire Fatalities, Seniors Age 65+

Location	% of Population	% of Residential Fires Fatalities
Ontario	17	39
Mississauga	14	56*

Data based on 2016 Census and actual call data

*Data based on a five-year average (2015-2019)

Fire Loss

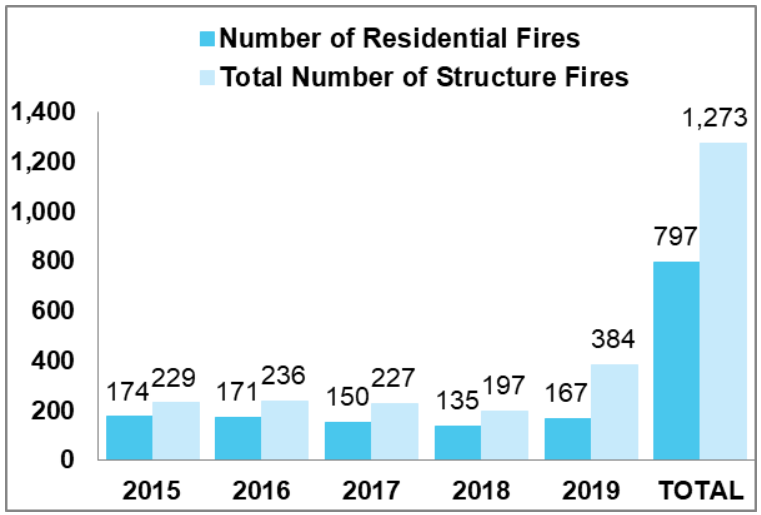
Analysis of historical fire loss and fire call data provides valuable insight into understanding the specific trends within a community. Assessing the key factors of life safety risk and fire risk provides a foundation for evaluating where specific programs or services may be necessary.

Building Stock

Residential

In order to assess the fire loss by occupancy classification, data from the Ontario Office of the Fire Marshal and Emergency Management (OFMEM) Standard Incident Reporting was analyzed from 2015 to 2019. Based on this analysis, the chart below illustrates that over the five-year period, residential structure fires represented more than half of the overall structure fires every year except 2019 and an average of 65 per cent of the fire loss.

Mississauga Residential Structure Fires



There are over 340 buildings in Mississauga with a height in excess of 18 metres. These are defined as high-rise buildings and are classified as high risk. They are high risk because response time can be longer and they require more resources to account for vertical response.

Industrial

The comprehensive risk assessment conducted by MFES identified industrial occupancy fires as a key risk. They represent 1.9 per cent of the city's property stock and almost 12 per cent of the city's fire loss. This is significantly higher than the provincial average and higher than expected given the actual number of industrial occupancies.

Civilian Fire Injuries and Fatalities

Between 2015 and 2019 there were 100 civilian injuries and nine civilian fatalities due to fire in Mississauga. The majority were in residential occupancies.

Residential Civilian Fire Injuries and Fatalities, 2015-2019

	2015	2016	2017	2018	2019
Fatalities	0	2	2	4	1
Injuries	24	2	4	27	43

Fire Cause

Many fatal fires are unintentional and can be prevented. A comparison of data from 2018 and 2019 illustrates a significant increase (19 per cent) in unintentional fires related to mechanical/electrical failures (see following table). This can be wiring, electrical distribution systems, and lighting equipment. It often involves damaged wiring, frayed appliance cords or loose connections.

2019 Unintentional Fire Causes

Unintentional Causes	# of Fires	% of Fires
Design/Construction/Installation Deficiency	5	1%
Used or Placed too Close to Combustables	9	2%
Routine Maintenance Deficiency (e.g., lint, grease build-up)	15	4%
Improperly Discarded Smoking/Other Materials	27	7%
Other	37	10%
Unattended Cooking/Candles	48	13%
Mechanical/Electrical Failure	129	34%
Total	**270**	

Smoke Alarms

Data over the past four years indicates that 62 per cent of fire calls analyzed do not have a working smoke alarm on the fire floor or the presence is undetermined. The law says that all residential occupancies must have a working smoke alarm on every floor.

The following table illustrates the number of times a smoke alarm was present and operating on the floor or in the suite of fire origin over the past five years.

Smoke Alarm Operation, 2015-2019

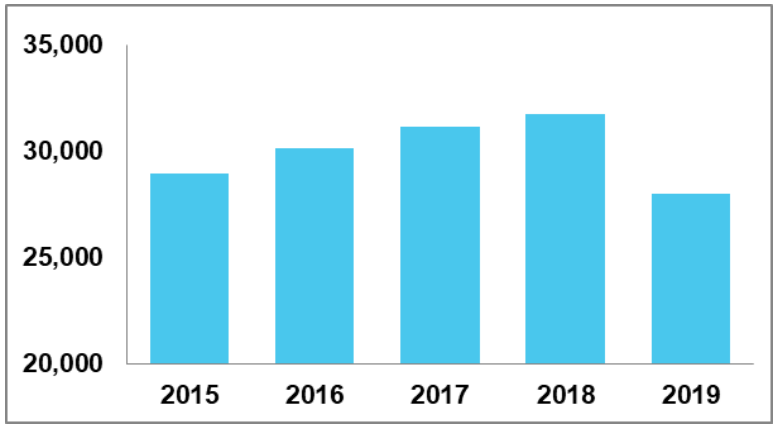
Smoke Alarm Operation	2015	2016	2017	2018	2019	Total Fires	% of Total Fires
No smoke alarm	99	96	88	102	104	489	33%
Smoke alarm present and operated	92	128	74	120	119	533	36%
Smoke alarm present and did not operate	40	31	35	22	35	163	11%
Smoke alarm present and operation undetermined	9	8	6	8	5	36	2%
Smoke alarm presence undetermined	55	40	46	54	57	260	18%
Total	**295**	**303**	**249**	**306**	**320**	**1,481**	

Fire Response

Call Volume

A summary of the total number of calls within the city from 2015-2019 indicates a steady increase in the number of incidents until 2019. The number of overall incidents decreased in 2019 as a result of a decrease in the number of medical calls.

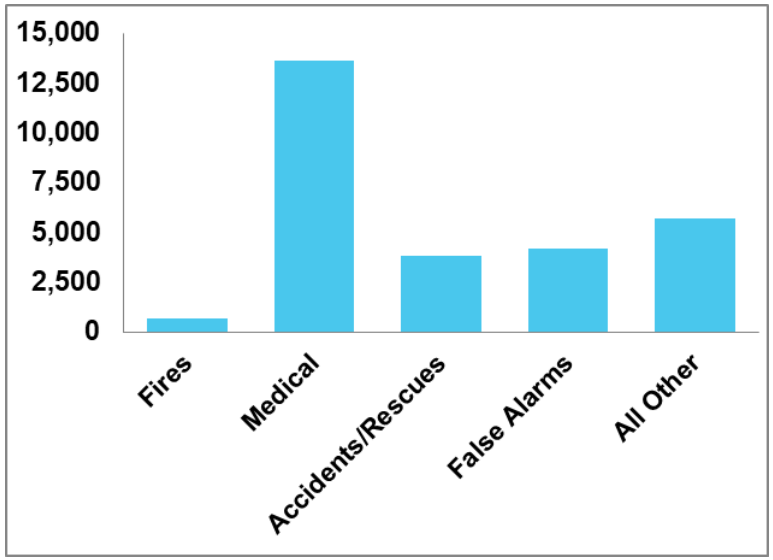
Call Volume by Year, 2015-2019



Response Type

The average annual call volume by response type is illustrated in the following chart.

2019 Call Volume by Major Call Type

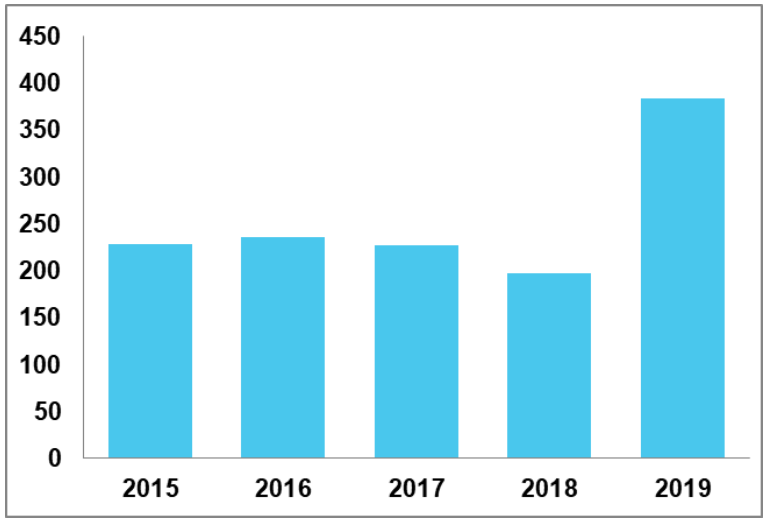


Medical calls are 47 per cent of Fire & Emergency Services call volume.

Calls to 9-1-1 are evaluated by dispatchers and, if warranted, Fire & Emergency Services responds in support of Peel Regional Paramedic Service (PRPS). The decision as to whether Fire responds or not is based on a tiered response agreement between Fire & Emergency Services and PRPS. This agreement is reviewed annually between the parties and guided by our base hospital medical director.

The number of structure fires increased in 2019. From 2015-2018 the average number of structure fires was 222 annually. In 2019 there were 384.

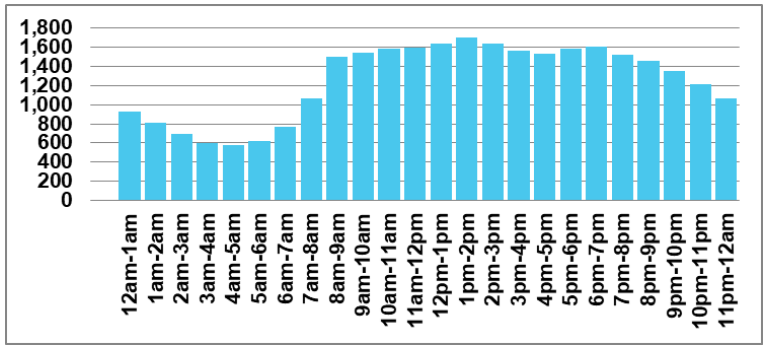
Number of Structure Fires, 2015-2019



Time of Day

Emergency call volume increases above the daily average of 1,258 between the hours of 8 a.m. and 10 p.m. The combination of higher-than-average call volume and peak road traffic cycles has a negative impact on response time. Of greatest concern is the 4 p.m. to 7 p.m. window, as the combination of high call volume and high traffic levels increases the risk during that time.

Average Call Volume by time of day, 2015-2019



Response Time

Total response time considers three factors:

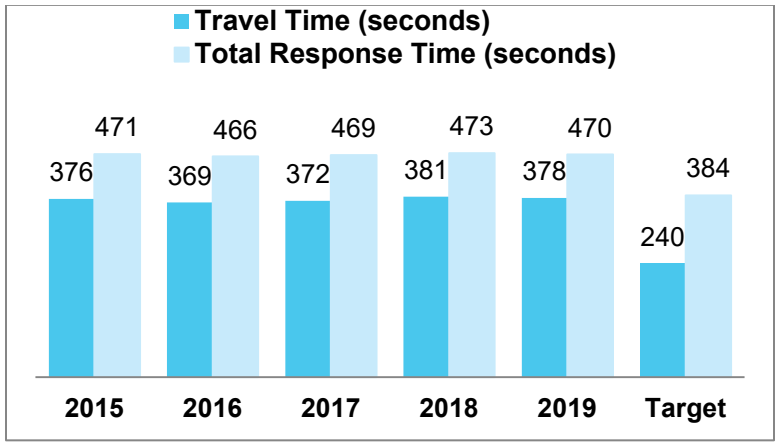
Call processing time – The interval between the time the call is acknowledged at the communications centre and the time response information begins to be transmitted to the emergency response units.

Turnout time – The interval between the time the transmission from the call centre begins and the time the truck leaves the station.

Travel time – The interval between the time the truck leaves the station and the time it arrives on scene.

This captures the time interval from the receipt of the emergency call to when the first emergency response unit arrives on scene. The National Fire Protection Association (NFPA) total response time target is 384 seconds 90 per cent of the time for the first arriving vehicle on scene. The chart that follows illustrates Fire & Emergency Services' actual city-wide travel time and total response time at the 90th percentile.

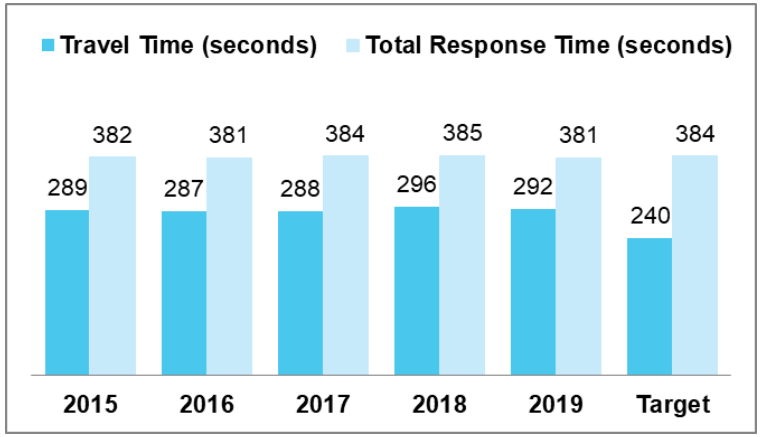
City Wide Response Time at the 90th Percentile, 2015-2019



In the 2019 Fire Master Plan, it was recommended that MFES build seven fire stations over 12 years with a goal to meet a travel time target of four minutes (240 seconds) 75 per cent of the time. The plan is to use a targeted approach to public education and enforcement to augment emergency response in order to accept the risk differential between 75 per cent and the NFPA target of 90 per cent.

The following illustrates MFES city-wide response time at the 75th percentile.

City-wide Response Time at the 75th Percentile, 2015-2019



Training at the Garry W. Morden Centre

Performance Measures and Results

The City of Mississauga is committed to delivering services economically and efficiently. The City's performance measures are used to help assess how well we are doing at achieving our goals and where we need to improve operations. The results also inform decision-making and strengthen accountability.

Balanced Scorecard

A Balanced Scorecard groups measures in four key areas of an organization's performance: Financial, Customer, Employee, and Business Process. By paying attention to all four areas, an organization can retain balance in its performance and ensure that it is moving toward the attainment of its goals.

Below are descriptions of the measures tracked in this Service Area's Balanced Scorecard. The Balanced Scorecard table that follows shows trends since 2017 and expected outcomes up to 2024.

Financial Measures

Cost Per Capita for Emergency Services is a measure that indicates how efficiently we are using our resources and is a particularly useful measure when comparing with other similar municipalities to gauge effectiveness. The goal is to balance operational effectiveness, community safety and fiscal responsibility.

Dollar Loss Related to Fires is a measure that indicates the estimated dollar loss related to fire damage. The goal is to decrease the dollar loss annually.

Customer Measures

% of Fires Where There Was No Working Smoke Alarm on Fire Floor (or presence could not be determined) – This measure helps illustrate how effective Fire & Emergency Services' public education programming is with respect to fire safety. Based on data collected over the past five years, 62 per cent of fire calls do not have a working smoke alarm on the fire floor or the presence could not be determined. The goal is to improve public fire safety education and decrease this measure to zero.

Number of Residents Receiving Fire Safety Public Education is a measure that captures the number of residents the Public Education Unit is reaching with public education programming. The goal is to increase this number each year.

Number of Fire Safety Inspections Completed is a measure that captures the number of times Fire Prevention Inspectors conduct inspections on properties in Mississauga. In 2019, 8,713 inspections were completed. The goal is to prioritize based on risk and increase this number each year.

Employee Measures

% of Fire Staff Lean White Belt Trained measures the percentage of the total number of fire staff trained to complete and submit small Lean process improvements. The goal is to have all staff trained.

Total number of Staff Trained as Fire & Life Safety Educators (to NFPA 1035) measures the number of fire staff trained to this industry standard. The goal is to train both public educators and front-line firefighters to provide public education sessions. The plan is to increase the total number of firefighters trained annually.

Total number of Fire Suppression Staff Trained in Fire Safety Inspections (to NFPA 1031 – Level 1 Standards) measures the number of fire staff trained to this industry standard. The goal is to increase the number of staff trained by training firefighters to assist with preliminary inspections.

Business Process Measures

First Unit Travel Time (all calls at the 75th Percentile) (target 240 seconds) captures the first arriving unit's travel time to arrive on scene at an emergency call. The goal is to meet or exceed the target 75 per cent of the time city wide.

First Unit Travel Time (all calls at the 90th Percentile) (target 240 seconds) captures the first arriving unit's travel time to arrive on scene at an emergency call. The goal is to decrease the travel time.

Number of Fire Safety Inspection Orders Issued – this measure is a way of determining how effective the fire safety inspection program is and how well Fire Code compliance issues are understood and addressed. The goal is to educate the public on the importance of compliance and reduce the number of inspection orders issued annually.

Number of Fire Code Decisions Resulting in Prosecutions – Fire & Emergency Services will prosecute for non-compliance with the Ontario Fire Code. These are instances where an inspection order was issued for non-compliance and no action was initiated to rectify the infraction or there was a blatant disregard of the Fire Code. The goal is to ensure business/building owners understand their responsibilities and obligations under the Ontario Fire Code and reduce the number of prosecutions annually.

Auto extrication training at the Garry W. Morden Centre

Balanced Scorecard

Measures for Fire & Emergency Services	2017 (Actual)	2018 (Actual)	2019 (Actual)	2020 (Plan)	2021 (Plan)	2022 (Plan)	2023 (Plan)	2024 (Plan)
Financial:								
Cost per Capita for Emergency Services ($)	137.17	137.42	146.73	148.55	166.20	170.66	180.76	187.06
Dollar Loss Related to Fires ($millions)	101.3	61.0	30.3	10.0	10.0	10.0	5.0	5.0
Customer:								
% of Fires Where There Was No Working Smoke Alarm on Fire Floor (or presence could not be determined)	68%	58%	62%	55%	30%	25%	20%	15%
Number of Residents Receiving Fire Safety Public Education	13,800	16,140	13,000	18,000	23,000	28,000	33,000	38,000
Number of Fire Safety Inspections Completed	8,212	9,256	8,713	9,584	10,543	11,597	12,757	14,032
Employee:								
% of Fire Staff Lean White Belt Trained	4%	30%	41%	45%	90%	98%	98%	98%
Total # of Staff Trained as Fire & Life Safety Educators (to NFPA 1035)	9	50	102	124	154	184	214	244
Total # of Fire Suppression Staff Trained in Fire Safety Inspections (to NFPA 1031-Level 1 Standards)	0	35	82	101	121	141	161	181
Business Process:								
First Unit Travel Time (all calls at the 75th Percentile) (target 240 seconds)	288	296	292	288	288	290	284	278
First Unit Travel Time (all calls at the 90th Percentile) (target 240 seconds)	372	381	378	372	372	374	368	362
Number of Fire Safety Inspection Orders Issued	283	219	295	305	315	325	335	345
Number of Fire Code Decisions resulting in Prosecutions	33	40	49	55	60	65	70	75

The 2021-2024 Business Plan Outlook

Planning for the Future

Education

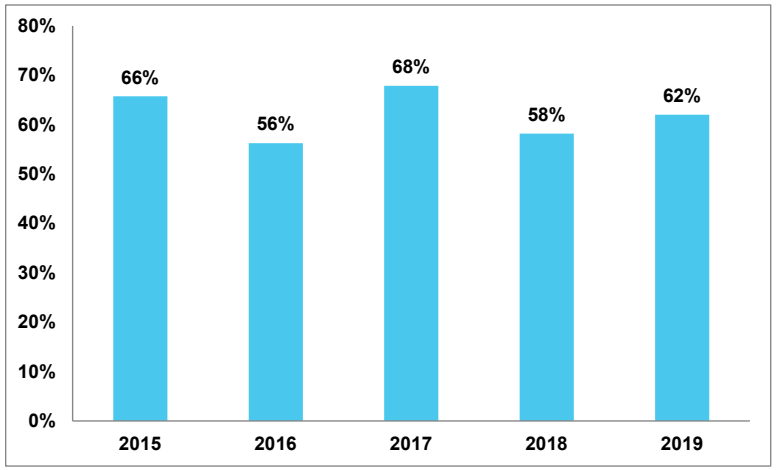
Public fire safety education is a critical component to fire prevention. MFES is working towards prioritizing and implementing all public fire safety programming based on risk. Teaching people to be the stewards of their own fire safety has proven to have a positive impact on the number and severity of fire-related injuries and deaths.

Fire Station Visit

By law, smoke alarms are required on every storey of a dwelling in the province of Ontario. Smoke alarm programs are also one of the required services to be provided by a fire department as per the *Fire Protection and Prevention Act, 1997*. As a result, smoke alarm programs and compliance are key components of public education and fire prevention activities provided by municipal fire departments across the province.

Data over the past five years indicates that 44 per cent of fire calls in Mississauga do not have a working smoke alarm on the fire floor and 62 per cent have no working smoke alarm or the presence of one could not be determined.

Percentage of Fire Calls With No Working Smoke Alarm/Presence Undetermined



To meet the requirements of the *Fire Protection and Prevention Act* as well as community needs, two additional public education officers will be required in 2022 to work proactively with the fire safety inspectors and front-line fire crews to develop educational programming directed at high-hazard industrial occupancies. This initiative will be funded through the Public Safety Fire Program Reserve Fund.

Public Education in a school

Enforcement

It is the responsibility of property owners/building managers to ensure they comply with all applicable regulations and statutes. Fire & Emergency Services has developed an inspection program that has established appropriate inspection cycles for all occupancy types based on risk. This program includes front-line firefighters to assist with the delivery of inspections.

A total of 23 additional Fire Safety Inspectors will be required over the next five years to complete the proactive fire safety inspection program. In response to budget constraints due to COVID-19, hiring for the 10 positions funded in the 2020 Business Plan & Budget has been deferred to 2021. These inspectors will help to complete mid-rise occupancies and continue annual inspections. There will be 13 positions requested over the next five years to address high-hazard industrial and medium-hazard factory industrial, assembly and business occupancies.

Engineering

The construction of a building can have a significant impact on occupant safety. Before a permit is issued, fire plans examiners are required to ensure that all fire and life safety requirements of the Ontario Building Code and the Ontario Fire Code are addressed. A fire safety engineer is being requested in 2022 to address an increase in building permits. This will improve the turnaround time for permit applications that are complex and may require alternative solutions to those prescribed in the Ontario Fire Code.

New technology can be extremely effective in improving service. MFES is currently updating the Computer Aided Dispatch (CAD) system which will enhance the routing of trucks to emergency calls. The upgrade will also provide better statistical reporting capabilities.

Fire Inspections

Emergency Response

The NFPA's travel time target is 240 seconds (four minutes) or less travel time for an initial arriving team of four firefighters 90 per cent of the time. MFES meets that target 52 per cent of the time (as of December 2019).

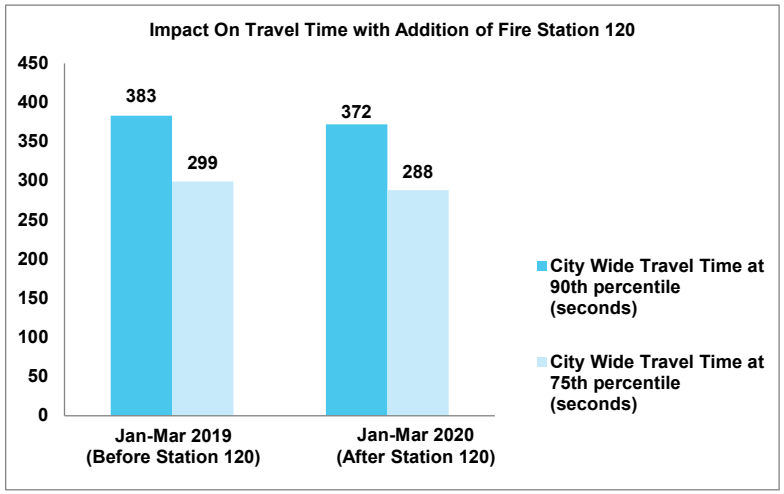
Station 120 Construction

New Stations

As part of the 2019 Fire Master Plan, Council approved a travel time target for the first arriving vehicle of 240 seconds (four minutes) or less 75 per cent of the time.

To reduce response time, the addition of seven fire stations was recommended with the first of those being put into service in November 2019. The following chart demonstrates the overall improvement of travel time city-wide with the introduction of Fire Station 120 (Hurontario & Eglinton) to the deployment model.

Impact on Travel Time with Addition of Fire Station 120



The following areas were identified in the Fire & Emergency Services Master Plan as priorities for new fire stations. Priority order is based on risk.

- Dundas & Cawthra
- Collegeway & Winston Churchill
- Tenth Line & Aquitaine
- Southdown & Truscott (Lorne Park)
- Mavis & Dundas

Existing Stations

Fire & Emergency Services provides response to many different types of incidents. Locating firefighters with the required specialized disciplines and equipment in the right place is critical to positive outcomes. Location and deployment of those resources depends on community risk.

An Infrastructure Renewal Strategy completed in 2019 will assist in ensuring the optimal location of stations and resources. This includes the design of facilities, types of vehicles and associated equipment required to address the risk of the community.

Part of Infrastructure Renewal Strategy looks at the rehabilitation and/or relocation of existing fire stations. The 10-year capital budget includes funding requests for the rehabilitation of three fire stations beginning in 2022.

Fire Station 107

Fire Station 101

Finding Efficiencies

Lean Program

The City's Lean Program focuses on strengthening the organization's culture of continuous improvement and instills Lean concepts and principles as a way of work in every Service Area. The program focuses on maximizing customer value and minimizing waste along with empowering staff at all levels to problem-solve on a daily basis. Since becoming permanent in 2016, the Lean program has produced such enhancements as improved customer experience, faster processing times, higher quality and lower costs.

Highlights of the many projects and improvements completed include:

- Fire Plans Examination Review – increased the number of complete submissions that met legislated deadlines by 23 per cent and improved overall customer experience
- Station Supply and Inventory Review – increased staff capacity by reducing the time it takes to deliver station equipment and supplies to 20 stations across the City by 50 per cent and order processing by 40 per cent
- Ministry of Transportation (MTO) Certification Process Review – Mandatory front-line vehicle repair turnaround time was reduced by up to 80 per cent for pumpers and squad vehicles and 90 per cent for aerial apparatus

Completed Initiatives					Total Benefits	
Improvement Type	**2014 - 2018**	**2019**	**Up to Sep 2020**	**Total**	**Type**	**Total**
Small Improvements	34	41	10	85	Cost Savings and Avoidance	$729,563
Rapid Improvements	2	0	1	3	Customer Service Improvements	57
Projects	4	0	0	4	Safety Improvements	32
Total	40	41	11	92	Environmental Improvements	35

In-progress Initiative	Goals of the Initiative
Review Plan for Work Area Resilience Process	Improve the process of relocation and workplace modifications in the event of a large scale disaster or epidemic.

Advancing the City's Strategic Plan

The City's Vision and Strategic Plan are the starting points for our annual business planning and budgeting cycle. The 40-year Strategic Plan, Our Future Mississauga, is built on five pillars -– **move, belong, connect, prosper, and green**. Business Plans are designed to strengthen aspects of these pillars to support the attainment of Mississauga's Vision.

Below are examples of how the initiatives of Fire & Emergency Services relate to the Strategic Plan pillars.

belong – ensuring youth, older adults and new immigrants thrive

- Developing targeted fire safety education programming based on risk
- Enhancing the smoke alarm program
- Engaging in community outreach

Project Zero – Partnership with Enbridge Gas

connect – completing our neighbourhoods

- Expanding the Proactive Fire Safety Inspection Program and identifying appropriate inspection cycles to ensure compliance with the Ontario Fire Code
- Expanding public education programming to target higher-risk demographics based on results of the CRA

prosper – cultivating creative and innovative businesses

- Combining both operations and fire prevention staff to conduct fire safety inspections on all mercantile, commercial and industrial occupancies

green – living green

- Considering Leadership in Energy and Environmental Design (LEED) principles when building new and retrofitting existing buildings

Transforming our Business with Technology

Response time – An upgrade to the existing CAD and record management system will help to reduce overall response time by improving call handling and dispatching. It will provide intelligent mapping, field communications, data reporting and analysis. This project is funded and is currently underway. Cost of this project is shared with Brampton and Caledon Fire & Emergency services.

Fire Safety Inspections/Code Compliance – The introduction of mobile field technology has improved the data capture and processing time of fire safety inspections. Fire inspection staff have been provided with mobile technology that allows them to access and update files, maps and building data remotely. This project is funded; inspections staff are now using this technology in the field.

Virtual Learning – Training for Fire & Emergency Services staff is traditionally in-person and hands-on, like the work itself. The COVID-19 pandemic has challenged staff to come up with new ways to deliver training. For example, the MFES fire recruit class has been modified and adapted for online delivery where possible. Going forward, many of these lessons can and will be applied to other areas where virtual learning can benefit the organization.

Forcible Entry Training

Maintaining our Infrastructure

Facilities

In November 2019 the City of Mississauga opened its first new fire station since 2002 – Station 120 at Hurontario & Eglinton.

Fire Station 120

Fourteen of the 21 stations were built more than 20 years ago. To address major rehabilitation/renovation concerns, a Building Condition Audit was conducted to assess the condition of those 14 fire stations. The primary goals of this study were to:

- Determine the current condition of each station
- Recommend a scope of work required for each station to meet health and safety standards, comply with building and fire code standards, meet accessibility requirements and consider operational requirements

The study identified three high priority areas to be included in rehabilitation/renovation plans, which are:

1. **Health and Safety** – NFPA standards make reference to the need to prevent exposure from exhaust contaminants within the dormitory and living areas as well as the appropriate storage and separation of contaminated personal protective equipment
2. **Accessibility** – The City of Mississauga 2015 Facility Accessibility Design Standards define the specifications for accessible/barrier-free design for municipal Fire Stations
3. **Gender Neutral Washrooms –** Many older stations do not have female washroom facilities. The station audit includes recommendations for gender neutral washroom/changeroom facilities

The final report includes recommendations for each station. The scope varies for each station depending on its assessment against specific design principles. The audit used City of Mississauga Accessibility Standards, NFPA facility standards as well as operational requirements to determine building condition.

This study and a deployment model review have resulted in a long-term infrastructure plan. This plan includes the rehabilitation/renovation of three existing fire stations in the 10-year capital plan.

Training at the Garry W. Morden Centre

Equipment

Within the 10-year capital budget there is funding for the purchase of new and replacement equipment to support front-line operations.

Fire & Emergency Services has an inventory of equipment valued at more than $10 million including:

- Personal protective equipment (bunker gear, SCBA, helmets, gloves and all gear required for front-line operations)
- Technical rescue equipment (auto extrication, high angle, ice and water, trench and confined space rescue)
- Other front-line equipment such as hose, nozzles and other equipment used for emergency response

All equipment must be tested and evaluated regularly to ensure reliability, and confirm compliance with legislative requirements and manufacturer recommendations.

Vehicles

Mississauga Fire & Emergency Services mechanical staff provides fleet services to 47 front-line fire trucks (front-line and reserve) as well as small and speciality vehicles. Fire trucks provide front-line service for 12 years, and for an additional three years they serve as reserve vehicles. About 80 per cent of the repairs and services are performed in house at the Garry W. Morden Centre.

The 10-year capital budget has funding for the replacement and refurbishment of all fire vehicles in order to maintain the reliability of the fleet.

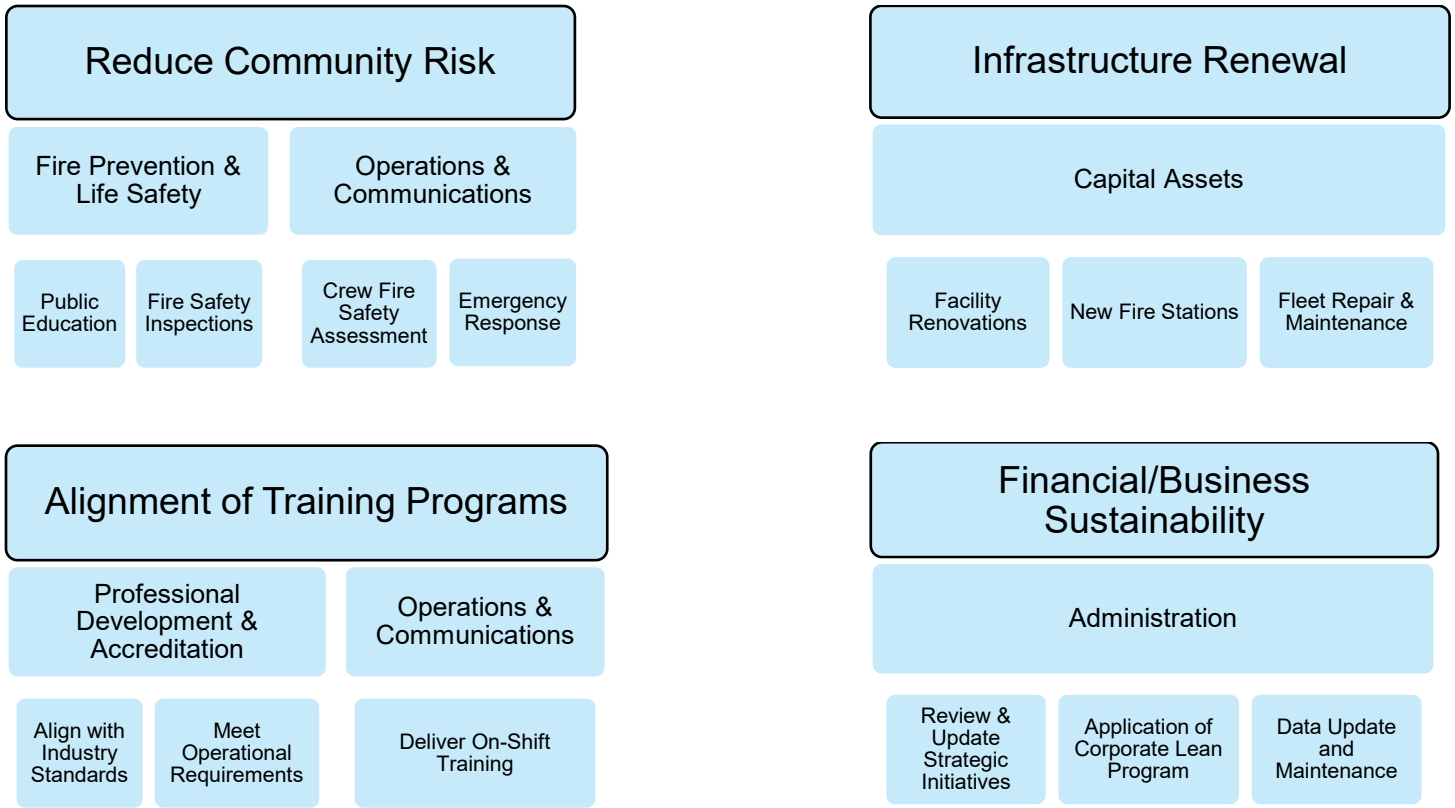
Trucks in for service

Managing our Human Resources

Workforce Analytics

Of the total staff complement in Fire & Emergency Services, 98 per cent are unionized. This includes all front-line operations staff, Fire and Life Safety inspectors, public educators and plans examiners, training, mechanical and the majority of the administration staff. Eighty-seven per cent of the labour is related to front-line firefighting operations. Suppression staff are hired for spring or fall recruit classes each year to fill vacancies resulting from retirements. Succession planning will be critical as nearly 20 per cent of staff are eligible for retirement in the next four years.

Our Structure



Our Talent

Fire Prevention and Life Safety staff consists of public educators, plans examiners and fire safety inspectors. Specialty training to NFPA standards consists of:

- Fire Inspector (levels 1-3)
- Public Educator (levels 1 and 2)
- Building Code and Fire Protection
- Fire Investigator

Fire & Emergency Services uses the Ontario Fire Administration Inc. (OFAI) Candidate Testing Services to test potential recruits. Through the OFAI, potential candidates complete a three-stage testing program that includes written testing, psychological profiling, medical and physical testing, and a skills evaluation. The skills evaluation tests candidates to ensure they have the basic skills.

In operations there are over 650 staff at various levels that require ongoing skills development and upgrading. Staff in the Professional Development and Accreditation section, in conjunction with on-shift training instructors, develop and deliver training programs that ensure the development of new skills along with the maintenance of existing skills. These include such programs as:

- Fire Ground Operations
- Medical
- Auto Extrication
- Specialty Rescue (Confined Space/Trench/Hazmat)
- Apparatus Operation
- IT and Communications

Staff are encouraged to apply for other related courses to improve their skills in each area as well as to upgrade in response to changing codes, building stock and new technologies.

Fleet mechanics for front-line emergency vehicles require ongoing training to ensure they maintain their existing skills and upgrade to adapt to emerging technologies. Fire fleet mechanics have Emergency Vehicle Technician (EVT) training and specialty manufacturer training.

Critical Roles/Functions to Achieve Business Goals

Risk reduction is the primary goal of Fire & Emergency Services. Functions including public education and enforcement are key to mitigating community risk.

Education – A robust, targeted public education program is proven effective in the prevention of fires by providing people with the tools to help prevent fires as well as the knowledge of what to do in the event that a fire occurs.

Enforcement – Proactive fire inspections and code enforcement are critical functions for risk reduction. Existing buildings must be inspected at a frequency that corresponds with the risk (i.e., higher risk, higher frequency).

Engineering – Fire plans examination functions ensure new structures are built in compliance with Ontario Building Code and the Ontario Fire Code.

Emergency Response – Front-line emergency response includes responding to many types of emergencies. This includes fire suppression, medical, hazardous materials and specialty rescue incidents (auto extrication, water, ice and high angle).

Talent Needs

Emergency Operations staff are hired through a recruiting process once or twice a year depending on the number of existing vacancies.

There is high demand for these jobs, so there is no difficulty attracting qualified candidates. Firefighters and Captains are promoted based on an internal competitive examination process.

Over the next four years requests for staffing will be related to critical, risk reduction programming detailed in the Fire & Emergency Services Master Plan. They include public education, fire safety inspections, training officers and new suppression staff to support two new fire stations.

As a result of COVID-19, all positions originally planned to be requested for 2021 have been deferred to 2022 and staff that were funded in the 2020 budget will be hired in 2021.

Proposed Full Time Equivalent Staffing Distribution by Program

Program	2020	2021	2022	2023	2024
Fire Building Maintenance	3.0	3.0	3.0	3.0	3.0
Fire Support Services	51.0	52.0	55.0	55.0	55.0
Fire Vehicle Maintenance	13.0	13.0	14.0	14.0	14.0
Prevention	67.0	66.0	76.0	82.0	82.0
Suppression	634.0	634.0	634.0	674.0	674.0
Total Service Distribution	**768.0**	**768.0**	**782.0**	**828.0**	**828.0**

Proposed Operating Budget

This part of the Business Plan sets out the financial resources required to deliver the proposed 2021-2024 Business Plan. Information is provided by major expenditure and revenue category as well as by program. The costs to maintain existing service levels and operationalize prior decisions are identified separately from proposed changes. The budget for 2020 was $119 million and the proposed budget for 2021 is $122 million.

Total Changes to Maintain Current Service Levels

In 2021, the impact of maintaining current service levels for Fire & Emergency Services is an increase of $2.65 million. Highlights of the proposed budget changes include:

- $2.6 million in labour adjustments including annualization of prior year Budget Requests
- $52,000 maintenance cost for new Business Continuity Management solution

Efficiencies and Cost Savings

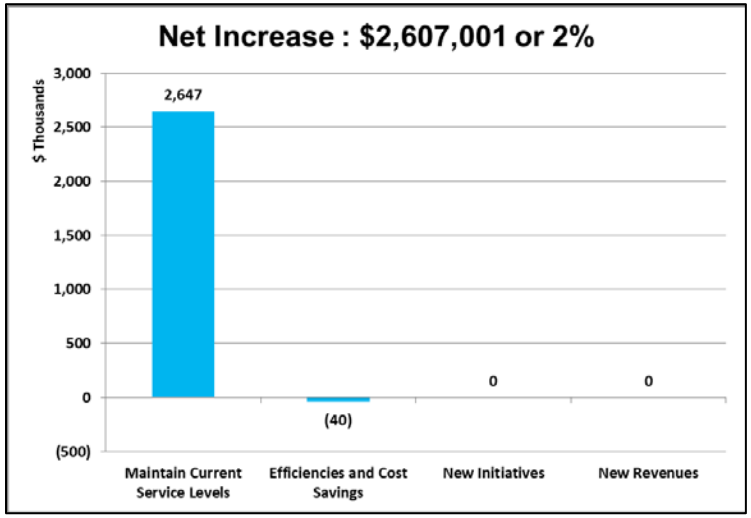
Cost savings of $40,000 include:

- $30,000 in staff development savings
- $10,000 in office supplies budget reduction

New Initiatives

New initiatives originally planned for 2021 have been deferred to 2022 or 2023 due to COVID-19-related budget constraints. As a result there are no new initiatives proposed for 2021.

Proposed Changes for 2021 Net Operating Budget by Category



Operating Budget Details

The following table identifies the budgeted and forecasted operating expenditures and revenues for 2021-2024, as well as the 2020 Budget and the 2019 Actuals by major program within the Service Area.

Proposed Budget by Program

Description	2019 Actuals ($000s)	2020 Budget ($000s)	2021 Proposed Budget ($000s)	2022 Forecast ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)
Expenditures to Deliver Current Services						
Fire Building Maintenance	1,238	1,329	1,482	1,498	1,522	1,530
Fire Support Services	9,198	8,987	9,002	9,219	9,419	9,595
Fire Vehicle Maintenance	3,977	4,322	4,539	4,617	4,662	4,711
Prevention	6,554	8,453	9,184	9,742	10,192	10,613
Suppression	93,645	102,314	104,545	113,641	122,345	127,911
Total Expenditures	**114,611**	**125,404**	**128,751**	**138,718**	**148,140**	**154,361**
Revenues	**(2,555)**	**(2,206)**	**(2,306)**	**(2,306)**	**(2,306)**	**(2,306)**
Transfers From Reserves and Reserve Funds	0	(3,826)	(4,467)	(4,837)	(5,184)	(5,446)
New Initiatives and New Revenues			0	189	260	266
Proposed Net Budget Including New Initiatives & New Revenues	**112,056**	**119,372**	**121,979**	**131,764**	**140,910**	**146,874**
Expenditures Budget - Changes by Year			3%	8%	7%	4%
Proposed Net Budget - Changes by Year			2%	8%	7%	4%

Note: Numbers may not balance due to rounding.

Summary of Proposed Budget

The following table shows the proposed budget changes by description and category. Costs (labour; operational costs; and facility, IT and support costs) and revenues are shown by category with the approved 2020 budget for comparison. The three columns to the far right of the table show the totals proposed for 2021 and their dollar and percentage changes over 2020. The second table summarizes the proposed 2021 budget and 2022-2024 forecasts.

Summary of Proposed 2021 Budget ($000s)

Description	2020 Approved Budget	Maintain Current Service Levels	Efficiencies and Cost Savings	Annualized Prior Year's Budget Decisions	Operating Impact of New Capital Projects	Proposed New Initiatives and New Revenues	Special Purpose Levies	Proposed 2021 Budget	$ Change Over 2020	% Change Over 2020
Labour and Benefits	110,477	2,659	0	410	0	0	0	113,546	3,069	3%
Operational Costs	5,173	309	(40)	0	42	0	0	5,484	311	6%
Facility, IT and Support Costs	1,020	(32)	0	0	0	0	0	988	(32)	-3%
Transfer To Reserves & Reserve Funds	8,734	0	0	0	0	0	0	8,734	0	0%
Total Gross Expenditures	**125,404**	**2,936**	**(40)**	**410**	**42**	**0**	**0**	**128,751**	**3,348**	**3%**
Total Revenues	(2,206)	(100)	0	0	0	0	0	(2,306)	(100)	5%
Transfer From Reserves & Reserve Funds	(3,826)	(260)	0	(380)	0	0	0	(4,467)	(641)	17%
Total Net Expenditures	**119,372**	**2,575**	**(40)**	**30**	**42**	**0**	**0**	**121,979**	**2,607**	**2%**

Summary of Proposed 2021 Budget and 2022-2024 Forecasts ($000s)

Description	2019 Actuals	2020 Approved Budget	2021 Proposed Budget	2022 Forecast	2023 Forecast	2024 Forecast
Labour & Benefits	103,820	110,477	113,546	119,172	125,450	131,483
Operational Costs	4,981	5,173	5,484	5,565	5,625	5,626
Facility, IT and Support Costs	908	1,020	988	941	950	959
Transfer To Reserves & Reserve Funds	4,902	8,734	8,734	14,298	20,346	23,524
Total Gross Expenditures	**114,611**	**125,404**	**128,751**	**139,977**	**152,372**	**161,592**
Total Revenues	(2,555)	(2,206)	(2,306)	(2,306)	(2,306)	(2,306)
Transfer From Reserves & Reserve Funds	0	(3,826)	(4,467)	(5,907)	(9,156)	(12,412)
Total Net Expenditures	**112,056**	**119,372**	**121,979**	**131,764**	**140,910**	**146,874**

Note: Numbers may not balance due to rounding.

Proposed Cost Increase Required to Maintain Current Service Levels

The following table provides detailed highlights of budget changes by major cost and revenue category. It identifies the net changes to maintain existing current service levels, taking into account efficiencies, cost savings, and cost increases arising from prior year decisions.

Category	2020 Budget ($000s)	2021 Proposed Budget ($000s)	Change ($000s)	Details (all values in thousands)
Labour and Benefits	**110,477**	**113,546**	**3,069**	**Increase reflects labour adjustments and other fringe benefit changes**
Administration and Support Costs	1,020	988	(32)	($82) Garry W. Morden Centre allocation offset in Recreation $49 IT Allocation
Advertising & Promotion	79	79	0	
Communication Costs	455	455	0	
Contractor & Professional Services	105	105	0	
Equipment Costs & Maintenance Agreements	485	539	54	$52 Business Continuity Management System operating impact $12 Diesel fluid
Finance Other	5	5	0	
Materials, Supplies & Other Services	1,091	1,218	127	($10) Office supplies reduction $120 Bunker gear cleaning $30 Bunker gear rental $29 EpiPens and station inventory $8 DisasterLAN annual maintenance increase ($50) Station 120 equipment budget reduction offset by reserve fund transfer
Occupancy & City Costs	959	1,104	145	$80 Generator maintenance $40 Fire station facility maintenance $25 Utilities and stormwater increases
Staff Development	449	434	(15)	($30) Staff development budget reduction based on trend $15 Recruit class training material
Transfers To Reserves and Reserve	8,734	8,734	0	
Transportation Costs	1,544	1,544	0	
Subtotal - Other Operating Costs	**14,927**	**15,205**	**279**	
Total Revenues	(2,206)	(2,306)	(100)	($35) Fees & charges increase ($65) Revenue adjustment based on trend (elevator calls, false alarms, motor vehicle accidents)
Transfers From Reserves and Reserve Funds	(3,826)	(4,467)	(641)	($641) Annualization of prior year budget requests funded by the Public Safety Fire Reserve Fund
Subtotal - Revenues	**(6,032)**	**(6,773)**	**(741)**	
Total	**119,372**	**121,979**	**2,607**	

Note: Numbers may not balance due to rounding.

Proposed New Initiatives and New Revenues

This table presents the costs by Budget Request (BR) for proposed new initiatives. Each BR is numbered. Detailed descriptions of any year one and year two BRs can be found in the pages following the table.

Description	BR #	2021 FTE Impact	2021 Proposed Budget ($000s)	2022 Forecast ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2021 to 2024 FTE Impact	2021 to 2024 Capital ($000s)
New Initiative								
Fire Public Education Programming	5370	0.0	0	0	0	0	2.0	8
Proactive Fire Inspection Program	5371	0.0	0	0	0	0	13.0	28
Fire Professional Standards and Evaluation	5454	0.0	0	0	0	0	2.0	8
New Fire Station 123	5508	0.0	0	0	0	0	20.0	10,137
Fire Safety Engineer	5519	0.0	0	0	0	0	1.0	0
Fire Small Fleet Mechanic	5527	0.0	0	84	125	129	1.0	0
Fire Emergency Management Specialist	5554	0.0	0	105	135	137	1.0	0
New Fire Station 124	5556	0.0	0	0	0	0	20.0	17,137
Total New Initiatives		**0.0**	**0**	**188,908**	**259,670**	**265,788**	**60.0**	**27,318**
Total		**0.0**	**0**	**188,908**	**259,670**	**265,788**	**60.0**	**27,318**

Note: Numbers may not balance due to rounding.

Budget Request #: 5370

Proposed Initiative	Department	Service Area
Fire Public Education Programming	Community Services Department	Fire & Emergency Services

Description of Budget Request

The establishment and staffing of a dedicated fire and life safety education section within Fire Prevention and Life Safety with a mandate to develop, implement and measure fire and life safety education programming based on identified key risks outlined in the CRA.

Required Annual Operating Investment

Impacts ($000s)	2021	2022	2023	2024
Gross Expenditures	0.0	203.7	304.2	313.8
Reserves & Reserve Funds	0.0	203.7	304.2	313.8
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	0.0	0.0	0.0
* Net Change in $		0.0	0.0	0.0
FTEs	0.0	2.0	2.0	2.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	50.0	0.0	8.0	0.0	0.0

Why Staff Recommend this Initiative

Data over the past eight years indicates that 44 per cent of fire calls in the City of Mississauga do not have a working smoke alarm on the fire floor. By law, smoke alarms are required on every storey of a dwelling in the province of Ontario. Smoke alarm programs are also one of the required services to be provided by a fire department as per the *Fire Protection and Prevention Act* (FPPA), 1997.

Details of Service Change

Based on programming required to meet both the requirements of the FPPA as well as the needs and circumstances of a large, growing city, eight public education officers will be required over a three-year period. Four were approved in 2019 to assess and develop additional educational programming geared to high- and mid-rise occupancies. Two were approved in 2020 to work proactively with the fire safety inspectors and front-line fire crews on mid-rise fire safety. Two are proposed in 2022 to develop educational programming directed at high-hazard industrial occupancies. In order to maintain a balance between public safety and fiscal responsibility, this initiative will be funded through the Public Safety Fire Program Reserve Fund.

Service Impact

A comprehensive smoke alarm program will reach a substantial number of residents and result in a higher rate of voluntary compliance and subsequently improved fire safety, and will reduce the fire risk in residential occupancies. Teaching people to be the stewards of their own fire safety has proven to have a positive impact on the number and severity of fire-related injuries and deaths. It is critical that homeowners understand the law requires that all residential occupancies must have a working smoke alarm on every floor and that there are consequences for non-compliance.

Budget Request #: 5371

Proposed Initiative	Department	Service Area
Proactive Fire Inspection Program	Community Services Department	Fire & Emergency Services

Description of Budget Request

Develop, staff, implement and measure a proactive fire and life safety inspection program that establishes appropriate inspection cycles for all occupancy types based on key risks identified in the CRA.

Required Annual Operating Investment

Impacts ($000s)	2021	2022	2023	2024
Gross Expenditures	0.0	570.7	1,358.5	1,741.9
Reserves & Reserve Funds	0.0	570.7	1,358.5	1,741.9
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	0.0	0.0	0.0
* Net Change in $		0.0	0.0	0.0
FTEs	0.0	7.0	13.0	13.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	70.0	0.0	28.0	0.0	0.0

Why Staff Recommend this Initiative

The minimum inspection frequency for high-risk occupancies is annual. Currently the City of Mississauga has over 1,200 occupancies that are classified as high-risk including vulnerable occupancies (nursing and long-term care facilities), high-hazard industrial properties and high-rise buildings. Future growth plans consider additional high-rise occupancies.

Details of Service Change

A total of 34 Fire Safety Inspectors will be required over a five-year period to meet the minimum requirements relating to the organization and deployment of fire prevention inspection outlined in NFPA 1730, 2016. Five were approved in 2019 to address high-rise and begin to address mid-rise occupancies. Ten were approved in 2020 to complete mid-rise occupancies and continue annual inspections: however, hiring for these positions was deferred to 2021 due to COVID-19. Seven are required for 2022 to address high-hazard industrial occupancies. Six are required in 2023 to complete medium-hazard factory industrial, assembly and business occupancies which are classified as moderate-risk and will require inspections at a biennial frequency. Six are required in 2023 to complete the factory industrial occupancies. In order to maintain a balance between public safety and fiscal responsibility, this initiative will be funded through the Public Safety Fire Program Reserve Fund.

Service Impact

This initiative aims to reduce the risk inherent in various occupancy types by ensuring compliance with the Ontario Fire Code. This proactive fire safety inspection program will help to reduce the impact on front-line operations.

Budget Request #: 5454

Proposed Initiative	Department	Service Area
Fire Professional Standards and Evaluation	Community Services Department	Fire & Emergency Services

Description of Budget Request

This Budget Request is specifically related to the development of a robust professional standards and evaluation program that clearly defines the development, delivery and evaluation of staff certification and testing. Firefighter certification to NFPA standards is an industry best practice and fulfills the service delivery standards identified in the Municipal Fire Establishing and Regulating By-Law (0269-2016).

Required Annual Operating Investment

Impacts ($000s)	2021	2022	2023	2024
Gross Expenditures	0.0	185.6	269.3	305.3
Reserves & Reserve Funds	0.0	185.6	269.3	305.3
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	0.0	0.0	0.0
* Net Change in $		0.0	0.0	0.0
FTEs	0.0	2.0	2.0	2.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	8.0	0.0	0.0

Why Staff Recommend this Initiative

Currently the Professional Development and Accreditation section consists of a group of training officers assigned to the training of all staff in various prevention and response disciplines. In order to ensure staff are trained to NFPA standards and reflect the service delivery standards prescribed in the E&R By-law additional resources will be required. The Province of Ontario supports firefighter certification and evaluation requirements to ensure safety and consistency across the province.

Details of Service Change

The Professional Development and Accreditation section of MFES will be divided into two distinct areas. One area will focus on the development and delivery of training and the other will focus on evaluation and testing. In order to execute this plan in its entirety, six new FTEs are requested. This includes two section supervisors (one for delivery and one for evaluation) and four additional training officers. The new and existing training officers will total 13 which will be divided appropriately between each new section.

Service Impact

The approval of this request will allow MFES to meet the requirements pertaining to the certification and evaluation of municipal fire and emergency services staff as it relates to the service standards prescribed in the Municipal Fire Establishing and Regulating By-Law (0269-2016). It will also meet industry expectations for a large urban municipality.

Budget Request #: 5519

Proposed Initiative	Department	Service Area
Fire Safety Engineer	Community Services Department	Fire & Emergency Services

Description of Budget Request

This Budget Request is to add a permanent Fire Safety Engineer position to respond to building permit applications that are significant in scope and complexity or require alternative solutions to those prescribed in the Ontario Fire Code with specific emphasis on key risks identified in the CRA.

Required Annual Operating Investment

Impacts ($000s)	2021	2022	2023	2024
Gross Expenditures	0.0	110.2	154.5	168.9
Reserves & Reserve Funds	0.0	110.2	154.5	168.9
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	0.0	0.0	0.0
* Net Change in $		0.0	0.0	0.0
FTEs	0.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Of all of the fires in Mississauga from 2003 to 2015, 14.4 per cent were caused by mechanical/electrical failure. There are 347 buildings with a height in excess of 18 metres, which are defined as high-rise buildings and are classified as high-risk. The City and provincial planning policies have identified intensification as a primary objective of community growth that will include a significant component of additional high-rise buildings in the future.

Details of Service Change

Plans examiners are required to ensure that all assigned fire and life safety requirements of the Ontario Building Code and the Ontario Fire Code are addressed prior to the issuance of a building permit. Items under MFES jurisdiction in the plans review process include (but are not limited to) fire alarm systems, automatic fire sprinkler systems, emergency power systems, emergency lighting systems, hose and standpipe systems, hazardous processes/operations and protection, smoke control systems and high-rise fire safety measures. This position will be added to the existing plans examination complement with a focus on the application of building code requirements based on key risks identified in the CRA. The expertise of a fire safety engineer will improve the turnaround time for those applications that require alternative solutions.

Service Impact

The results of the CRA identified industrial occupancies as a significant risk as they represent 1.9 per cent of the City's property stock and 11.6 per cent of the City's fire loss over at 12-year period. Additionally, the City and provincial planning policies have identified intensification as a primary objective of community growth that will include a significant component of additional high-rise buildings in the future. The permitting of construction for these types of structures and other complex applications can take a significant amount of time. A resource specializing in fire engineering will help to complete these and other complex permit requests and improve turnaround time.

Budget Request #: 5527

Proposed Initiative	Department	Service Area
Fire Small Fleet Mechanic	Community Services Department	Fire & Emergency Services

Description of Budget Request

This request for a permanent Small Fleet Mechanic position is in response to the requirements of demand and preventative maintenance on over 40 small fire fleet vehicles. The position does not require the same skill set as a heavy truck mechanic and therefore is classified at a lower rate than the existing front-line vehicle mechanics.

Required Annual Operating Investment

Impacts ($000s)	2021	2022	2023	2024
Gross Expenditures	0.0	83.6	125.1	129.0
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	83.6	125.1	129.0
* Net Change in $		83.6	41.5	4.0
FTEs	0.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The Ontario Ministry of Transportation (MTO) mandates MTO inspections on all front-line vehicles annually. Currently the six heavy fleet mechanics are tasked with both completing the MTO inspections on all front-line vehicles to meet legislative deadlines and performing demand maintenance on emergency vehicles. This impacts the timeliness of preventative and demand maintenance on the smaller vehicles.

Details of Service Change

Operating cost is related to a small fleet mechanic that will be licensed to work on all small vehicles and specialty equipment. This FTE does not require the same skill set as a heavy truck mechanic and therefore classified at a lower rate than the existing front-line vehicle mechanics.

Service Impact

This request will improve the ability of the heavy vehicle mechanics to complete both preventative and demand maintenance requirements to keep the front-line emergency vehicles in service. It will also improve the timeliness of small vehicle and equipment repairs.

Budget Request #: 5554

Proposed Initiative	Department	Service Area
Fire Emergency Management Specialist	Community Services Department	Fire & Emergency Services

Description of Budget Request

This request is for a permanent resource to provide more robust community preparedness programming to improve community readiness for a major disaster.

Required Annual Operating Investment

Impacts ($000s)	2021	2022	2023	2024
Gross Expenditures	0.0	105.3	134.6	136.7
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	105.3	134.6	136.7
* Net Change in $		105.3	29.3	2.1
FTEs	0.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2020 & Prior	2021	2022	2023	2024 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Resources are in place to provide training and preparedness for internal staff: however, levels of external community preparedness are very low. From a public survey that was completed in 2017 the following information was gathered: 11 per cent of respondents were unaware of what a 72-hour kit is; 63 per cent were unaware of what goes into one; 37 per cent had discussed emergency preparedness with their families; and only 15 per cent had discussed a family contact plan.

Details of Service Change

This resource will provide public education to external groups including residents with specific emphasis on vulnerable populations, businesses and non-government organizations and thereby increase public emergency preparedness.

Service Impact

This position will support community preparedness. It will strengthen the City's resiliency to incidents, emergencies and disasters through effective public information and educational opportunities. The focus of this position includes community-wide planning with schools, colleges and the university, non-profit organizations, faith-based organizations, businesses, workplaces, and hospitals. The social investment proposition has the potential to yield an extremely high return (reduce loss of life, personal injuries and damage).

Proposed Capital Budget

This section summarizes the forecast 10-year capital requirements for this service. The following table presents the forecast by major program.

Proposed 2021-2030 Capital Budget by Program

Program Expenditures	2021 Proposed Budget ($000s)	2022 Forecast ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025-2030 Forecast ($000s)	Total 2021-2030 ($000s)
Stations & Auxiliary Buildings	8,000	7,613	16,389	8,448	46,267	86,717
Vehicles & Equipment	3,509	8,051	4,302	7,061	39,750	62,673
Total	**11,509**	**15,664**	**20,691**	**15,509**	**86,017**	**149,390**

Note: Numbers may not balance due to rounding. Numbers are gross.

Proposed 2021-2030 Capital Forecast Highlights:

- $7.9 million for design and construction of new Fire Station 123 (2021-2023)
- $14.9 million for design and construction of new Fire Station 124 (2021-2023)
- $3.4 million for lifecycle replacement of fire vehicles and front-line equipment (2021)
- Renovations to Fire Stations 102, 108, and 115 (2022-2027)
- Construction of new Fire Stations 125, 126, 127, and 128 (2023-2030)

Proposed 2021-2030 Capital Budget by Funding Source

The following table provides the funding sources proposed to fund the capital portion of the proposed 2021-2024 Business Plan and 2021 Budget and the consolidated forecast for 2025-2030.

Funding	2021 Proposed Budget ($000s)	2022 Forecast ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025-2030 Forecast ($000s)	2021-2030 Total ($000s)
Tax Capital	11,509.0	15,564.0	20,691.0	13,272.0	57,862.0	118,898.0
Development Charges	0.0	100.0	0.0	2,237.0	28,155.0	30,492.0
Other Reserves & Reserve Funds	0.0	0.0	0.0	0.0	0.0	0.0
Total	**11,509.0**	**15,664.0**	**20,691.0**	**15,509.0**	**86,017.0**	**149,390.0**

Note: Numbers may not balance due to rounding. Numbers are gross.

Proposed 2021 Capital Budget Detail

The following tables provide a detailed listing of proposed capital projects for 2021.

Program: Stations & Auxiliary Buildings

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net Cost ($000s)	Funding Source
CMFS00044	New Fire Station 124 - Dundas & Cawthra - Land, Design and Construction	7,500	0	7,500	Tax Capital
CMFS00045	New Fire Station 123 - Burnhamthorpe/Winston Churchill - Design and Construction	500	0	500	Tax Capital
Total		**8,000**	**0**	**8,000**	

Note: Numbers may not balance due to rounding.

Program: Vehicles & Equipment

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net Cost ($000s)	Funding Source
CMFS00057	Replacement of Emergency Response Tools and Equipment	1,195	0	1,195	Tax Capital
CMFS00068	Personal Protective Equipment Replacement	214	0	214	Tax Capital
CMFS00078	Refurbish Fire Vehicles	100	0	100	Tax Capital
CMFS00083	Replacement of fire vehicles	1,940	0	1,940	Tax Capital
CMFS007779	Personal Protective Equipment for New Hires	60	0	60	Tax Capital
Total		**3,509**	**0**	**3,509**	

Note: Numbers may not balance due to rounding.

Proposed 2021-2030 Capital Budget by Sub-Program

The following tables provide a listing of capital forecast by sub-program for 2021-2030.

Sub-Program	2021 Proposed Budget ($000s)	2022 Forecast ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026 Forecast ($000s)	2027 Forecast ($000s)	2028 Forecast ($000s)	2029 Forecast ($000s)	2030 Forecast ($000s)	Total Forecast ($000s)
Stations & Auxiliary Buildings											
FIRE Stations - Renovations	0	513	3,565	513	3,345	513	3,532	0	0	0	11,981
FIRE Stations New	8,000	7,000	12,824	7,935	5,024	7,935	5,024	7,935	5,024	7,935	74,636
FIRE Studies	0	100	0	0	0	0	0	0	0	0	100
Subtotal	**8,000**	**7,613**	**16,389**	**8,448**	**8,369**	**8,448**	**8,556**	**7,935**	**5,024**	**7,935**	**86,717**

Note: Numbers may not balance due to rounding. Numbers are net.

Sub-Program	2021 Proposed Budget ($000s)	2022 Forecast ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026 Forecast ($000s)	2027 Forecast ($000s)	2028 Forecast ($000s)	2029 Forecast ($000s)	2030 Forecast ($000s)	Total Forecast ($000s)
Vehicles & Equipment											
FIRE Equipment New	60	33	500	0	0	0	45	0	0	0	638
FIRE Equipment Replacement	1,195	1,195	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	14,390
FIRE Safety Clothing Replacement	214	194	177	187	1,244	225	212	263	221	250	3,187
FIRE Vehicles	2,040	6,629	2,125	5,374	1,780	4,905	5,075	8,449	4,061	4,020	44,458
Subtotal	**3,509**	**8,051**	**4,302**	**7,061**	**4,524**	**6,630**	**6,832**	**10,212**	**5,782**	**5,770**	**62,673**
Total Expenditures	**11,509**	**15,664**	**20,691**	**15,509**	**12,893**	**15,078**	**15,388**	**18,147**	**10,806**	**13,705**	**149,390**

Note: Numbers may not balance due to rounding. Numbers are net.