



Fire & Emergency Services

2022-2025 Business Plan
& 2022 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 2022-2025 Business Plan & 2022 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.

The ongoing COVID-19 global pandemic is a significant factor impacting the 2022-2025 Business Plan & 2022 Budget. Service levels and service delivery continue to be affected.

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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:

- Responds to an average of 30,000 incidents annually
- An average of 55 per cent of the responses have met the travel time target over the past five years
- Responded to 178 structure fires in 2020 of which 71 per cent (126) were in residential occupancies
- 60 per cent of fires attended over the past five years had no working smoke alarm on fire floor (or presence could not be determined)

Highlights of the Business Plan include:

The 2019 Fire & Emergency Services Master Plan continues to drive the business plan and budget which comprises:

- Risk-based targeted public education programs
- Risk-based proactive fire and life safety inspection programs
- Continued investment in the Infrastructure Renewal Strategy
- Construction of new fire stations to improve response time

Net Investment (\$000s)	2022	2023	2024	2025
Operating	131,009	140,529	151,636	161,037
Capital	19,077	27,457	22,950	26,912
Full Time Equivalents	775.0	822.0	822.0	842.0

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.

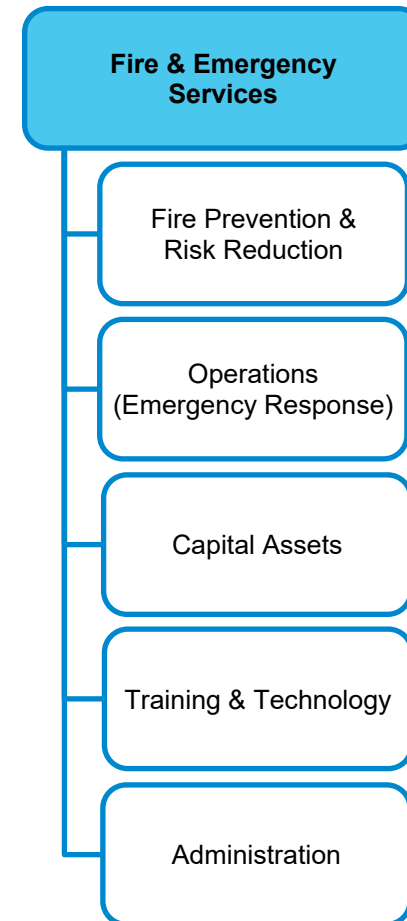
Mission

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** by expanding public education programming and increasing fire safety inspections
- **Execute the long-term infrastructure renewal strategy** including the renovation of 17 fire stations over 10 years
- **Mitigate lagging response times** by building new infrastructure and ensuring the reliability of equipment and vehicles
- Ensure the **health and safety of staff and customers** by aligning training programs with recognized industry professional standards

Service Delivery Model



Service Levels and Trends

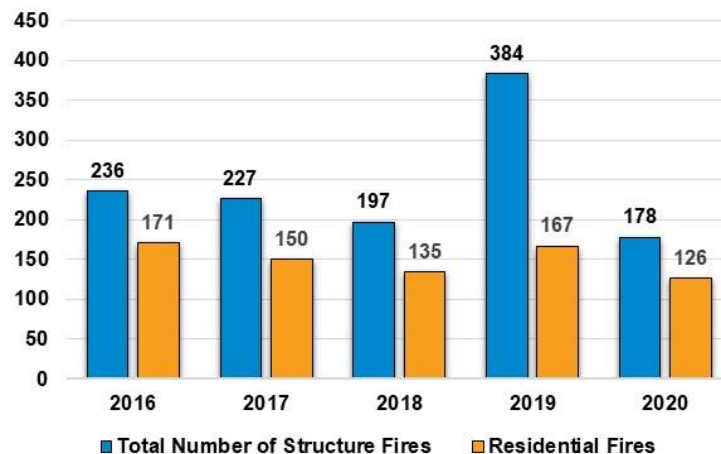
Industry Trends: Community Risk

Demographics

Seniors (age 65 and over) consistently represent one of the highest fire risks and represent a disproportionate number of fire fatalities. Fourteen per cent of the population in Mississauga is over 65 years of age (2016 Census). Actual call data averaged over the past five years suggests that 45 per cent of all residential fire fatalities in Mississauga are people over the age of 65.

Occupancy Type

In the City of Mississauga approximately 95 per cent of the city's total building stock is classified as residential. This includes single-family dwellings, multi-unit residential, and hotels/motels. Actual call data collected over the past five years indicates that an average of 64 per cent of structure fires occurred in residential occupancies. In 2020 that number was 71 per cent. The chart below illustrates the number of residential structure fires vs. the total number of structure fires over a five-year period.



Industrial (Group F) occupancies represent only 1.9 per cent of the city's property stock yet account for approximately 12 per cent of the fire loss. This is higher than the provincial average.

The Fire & Emergency Services 2017 Comprehensive Risk Assessment (CRA) identified over 1,200 high-risk occupancies across the city.

Fire Cause

Nearly 60 per cent of the identified causes are unintentional. These include improperly discarded smoking materials, unattended cooking and mechanical and electrical failures. Over the past three years, arson fires have been on the rise.

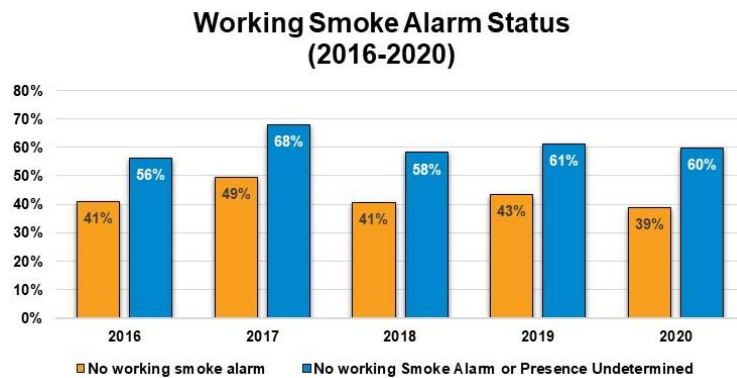


On scene at a fire

Smoke Alarm Operation

Data over the past five years suggests that an average of 43 per cent of fire-related calls had no working smoke alarms and 60 per cent had no working smoke alarm or the presence could not be determined. The law states that all residential occupancies must have a working smoke alarm on every floor.

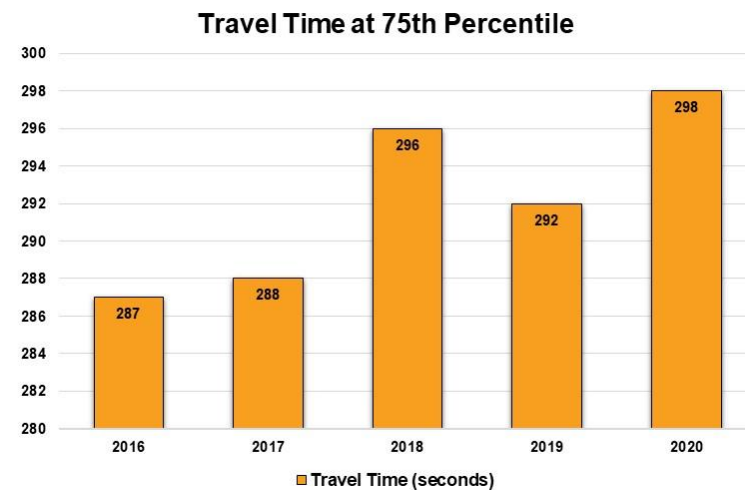
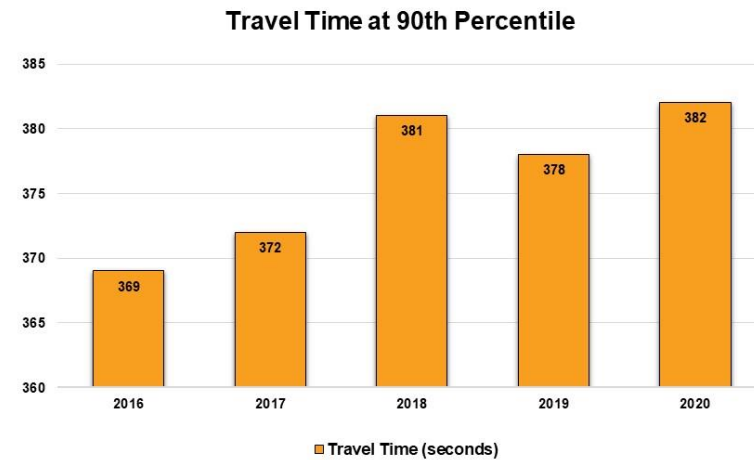
The chart below illustrates the percentage of times no smoke alarm was present or operating on the floor or in the suite where the fire originated.



Service Levels

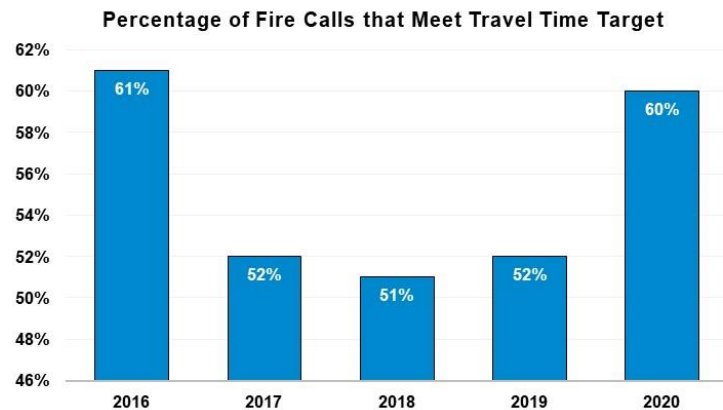
Travel Time captures the interval from the time the truck leaves the station to the time first emergency response unit arrives on scene. The National Fire Protection Association (NFPA) travel time target is 240 seconds (four minutes) 90 per cent of the time for the first arriving vehicle on scene. The Fire & Emergency Services Master Plan recommends meeting 240 seconds (four minutes) 75 per cent of the time. To bridge the gap between the industry standard of 90 percent and the Mississauga Fire & Emergency Service (MFES) recommended target of 75 percent, additional emphasis will be placed on public education and enforcement. The current and future deployment model and fire station placement are based on this target. The following charts

illustrate Fire & Emergency Services' actual city-wide travel time at the 90th and the 75th percentiles.



The 2020 travel time improvement is an anomaly resulting from COVID-19 as traffic congestion was significantly reduced.

The following chart illustrates the the percentage of time the travel time standard of 240 seconds is met.

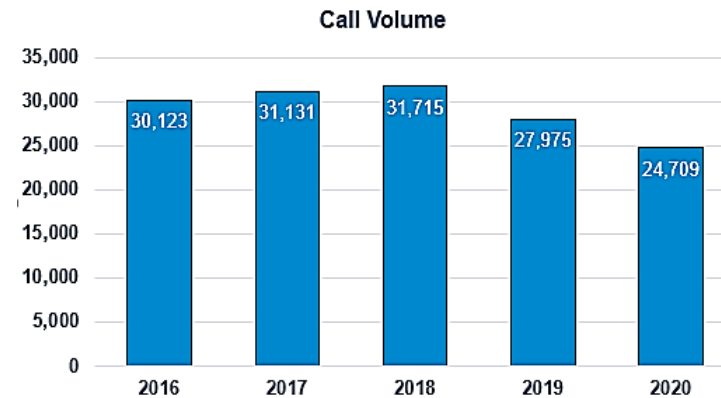


Traffic congestion is the biggest obstacle to meeting response time targets. Strategically placed new infrastructure is the best method to combat increasing congestion. It is anticipated that the six new fire stations in the capital plan will close the gap and reach the target of meeting the 240-second standard 75 per cent of the time. The following table illustrates the estimated impact of each additional station on travel time.

Station	Location	% Calls Meeting 240-second Target
No Stations		60%
+Station 120	125 Eglinton Ave W	65%
+Station 123	Winston Churchill & The Collegeway	67%
+Station 124	Dundas & Cawthra	68%
+Station 125	Tenth Line & Aquitaine	71%
+Station 126	Mavis & Dundas	73%
+Station 127	Lorne Park	73%
+Station 128	North Lakeview	75%

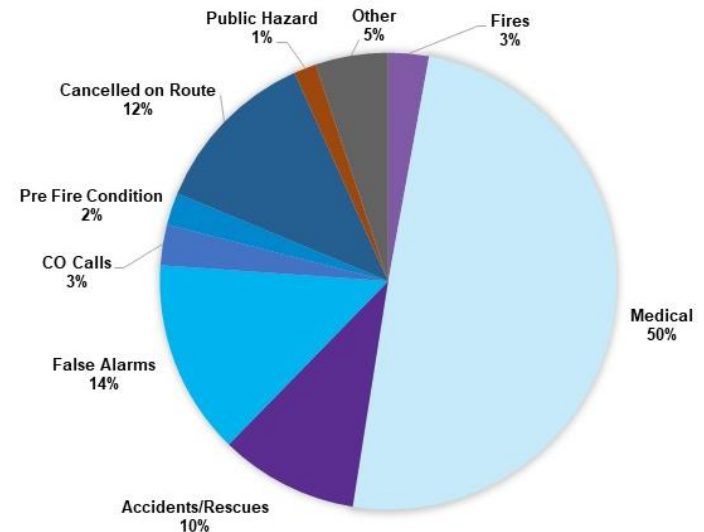
Call Volume

The next chart summarizes the total number of calls within the city from 2016 to 2020. The number of overall incidents decreased in 2020 due to COVID-19. The calls that were impacted the most were vehicle collisions and fires.



Call Volume by Major Call Type

Calls have been grouped into five major call types based on Standard Incident Reporting prescribed through the Ontario Fire Marshal's office. The following illustrates the 2020 incidents by response type. (The category "Other" includes illegal grow ops, controlled burnings and explosions.)



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 traditionally assembles organizational performance measures from four areas: customer, financial, workforce, and business process. Measures from each area tell an important part of the performance story. Changes in one area can result in pressures in another, as they do within an ecosystem; taken together, measures from all four areas present a balanced overview of how things are going.

- Customer measures describe how well the service is provided (quality; outcome attainment; and user and citizen satisfaction measures on dimensions such as quality, value, price, product, and service), and how much service the organization provides (volume or capacity measures)
- Financial measures describe the organization's financial performance. Companies often use measures such as profit, revenue to cost, and cash flow. Corporately, City examples include investment performance and interest costs. Service Area measures could include ratios of revenue to cost, costs per unit of service delivered (cost efficiency), per capita costs
- Workforce (formerly 'Employee') measures describe workforce factors that can contribute to the effective delivery of service. These could include rates of innovation, employee satisfaction, qualifications/training, and workforce stability measures such as the rate of succession plan participation

- Business Process measures describe the efficiency and/or effectiveness of a given process. They help to identify any gaps, delays, bottlenecks, shortages, or waste. Time is often a dimension of these measures; e.g., time to respond on scene to an emergency. Resource use and rate of targeted outcome attainment are also often dimensions of business process measures

As an organization with a service (vs. profit) mandate, the City gives customer measures pre-eminence on its Balanced Scorecards. Doing this does not diminish the importance of financial, workforce and efficiency measures. Those measures help the City focus on achieving an outcome that is as important to taxpayers as any other, which is to get the most value possible out of their money.

Below are descriptions of the customer, financial, workforce, and business process performance measures tracked in this Service Area's Balanced Scorecard. The Balanced Scorecard table that follows shows trends since 2018 and expected outcomes to 2025.

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, 60 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 number dropped significantly in 2020 due to COVID-19 as

in-person sessions were not an option. The program was adapted to reach people virtually and over 5,200 people took part in these virtual sessions. The goal is to increase this number each year and impact the number of unintentional fires.

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

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 through education, enforcement and emergency response.

Workforce Measures

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 of 240 seconds 75 per cent of the time city wide. Based on past trends there is a one per cent increase each year in travel time if no resources are added or changed. Anticipating a 2024 opening for a new fire station, the travel time is expected to decrease by two seconds.

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 by that means, to 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 by that means, to reduce the number of prosecutions annually.

Balanced Scorecard

Measures for Fire & Emergency Services	2018 (Actual)	2019 (Actual)	2020 (Actual)	2021 (Plan)	2022 (Plan)	2023 (Plan)	2024 (Plan)	2025 (Plan)
Customer:								
% of Fires Where There Was No Working Smoke Alarm on Fire Floor (or presence could not be determined)	58%	62%	60%	57%	50%	45%	40%	35%
Number of Residents Receiving Fire Safety Public Education	16,140	13,000	5,244	18,000	23,000	28,000	33,000	38,000
Number of Fire Safety Inspections Completed	9,256	8,713	9,584	11,000	16,000	21,000	26,000	31,000
Financial:								
Cost per Capita for Emergency Services (\$)	147.29	155.29	137.38	168.04	181.55	194.75	210.14	223.17
Dollar Loss Related to Fires (\$millions)	61.0	30.3	26.5	20.0	15.0	10.0	10.0	10.0
Workforce:								
Total # of Staff Trained as Fire & Life Safety Educators (to NFPA 1035)	50	102	363	393	423	453	483	513
Total # of Fire Suppression Staff Trained in Fire Safety Inspections (to NFPA 1031- Level 1 Standards)	35	82	101	122	142	162	182	202
Business Process:								
First Unit Travel Time (Seconds) (75th Percentile)	296	292	298	301	304	307	305	305
Number of Fire Safety Inspection Orders Issued	219	295	146	315	325	335	345	355
Number of Fire Code Decisions resulting in Prosecutions	40	49	22	32	42	52	62	72

Awards and Achievements



The Firehouse Subs Public Safety Foundation of Canada awarded a 2021 grant to MFES that will be used to buy smoke/carbon monoxide alarms for distribution in the community



The 2020 Fire Prevention Recruit Class donated \$700 to National Service Dogs



The 2020 Pink Truck Campaign raised \$58,350 for the cancer program at Trillium Health Partners

In partnership with Trillium Health, some firefighters received training through a pilot project to help support COVID-19 vaccination efforts. This innovative partnership prepared some of Mississauga's firefighters to join the fight against COVID-19 by providing vaccinations to members of the public as well as logistical support at vaccination centres and mobile vaccination sites. The goal was to assist in alleviating concerns that an increase in patients in the hospital system could leave the mass vaccination clinics scrambling for staff.



MFES Suppression staff assisted with the delivery of COVID-19 vaccinations to the community

The 2022-2025 Business Plan Outlook

Planning for the Future

The 2019 Fire & Emergency Services Master Plan guides the delivery of programs and services by setting short- and long-term priorities. The business plan focuses on the areas that are deemed the most significant priorities.

Education

The goal of fire safety education is to give people the tools and skills to mitigate fire risk and know what to do when a fire occurs.

In 2020, 71 per cent of structure fires in Mississauga occurred in residential occupancies. Proper fire safety education is an effective way to mitigate injury or death.

There were no fatalities due to fires in residential occupancies in 2020; however, in the past five years there have been nine civilian fatalities and 88 injuries directly related to fire incidents.



At a house fire

One of the priorities for 2022 is to enhance the existing smoke alarm program. In 60 per cent of the fires that MFES responded to over the past five years a working smoke alarm was not present or the presence of one could not be determined. In 2021 MFES received grant funding that was used to purchase combined smoke and carbon monoxide (CO) alarms. MFES is partnering with the Mississauga Food Bank to distribute 500 smoke alarms to food bank users who do not currently have a working alarm. The long-term goal is to roll out a comprehensive smoke/CO alarm program beginning in 2022. This will include increased public education, with designated smoke/CO alarm campaigns that will target higher-risk areas.

Two additional Public Education Officers are required in 2022 to adequately resource the public education section. These additional resources will work proactively with the fire safety inspectors and front-line fire crews to develop targeted public education programming. This initiative will be funded through the Public Safety Fire Program Reserve Fund.



Sparky the Mascot helps with Fire Safety Education

Enforcement

This is the second year that MFES has been working on a proactive fire and life safety inspection program. This program includes an appropriate inspection cycle for all occupancy types depending on the risk level. The annual inspection of high- and mid-rise occupancies is well underway. The focus over the next year will be high- and moderate-hazard industrial.

Occupancy Type	Frequency
Assembly	Biennial
Institutional (legislated annually)	Annual
Mid-rise Residential (6-12 storeys)	Annual
High-rise Residential (over 12 storeys)	Annual
Business and Personal Services	Biennial
High-hazard Industrial	Annual
Medium-hazard Industrial (factories)	Biennial
Low-hazard Industrial (warehousing)	Biennial

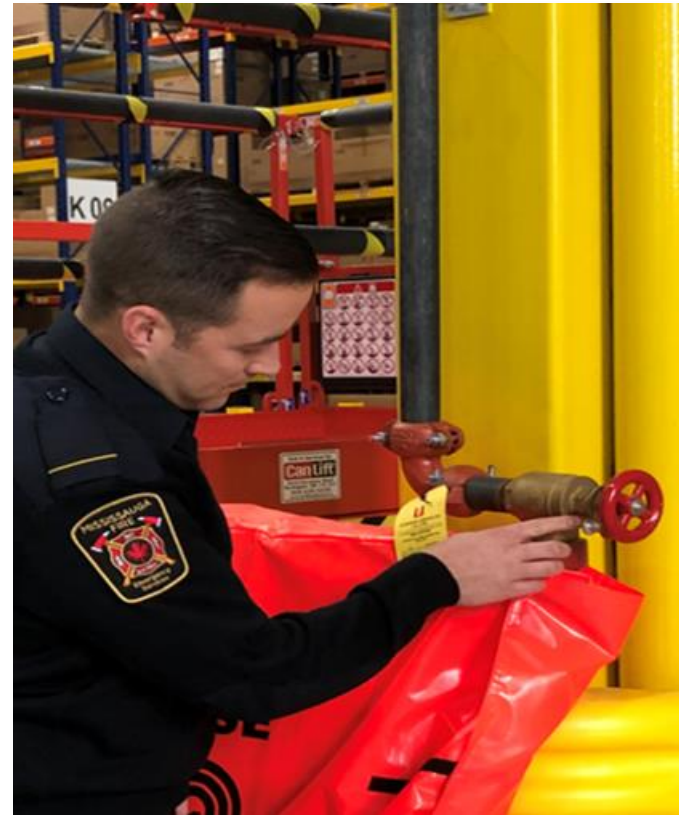
A more aggressive application of penalties for non-compliance will also be a priority.

In response to COVID-19 budget constraints the hiring for the 10 positions funded in the 2020-2023 Business Plan & 2020 Budget was deferred to 2021. There will be 13 positions requested over the next two years: seven in 2022 to address high-hazard industrial and six in 2023 to address 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

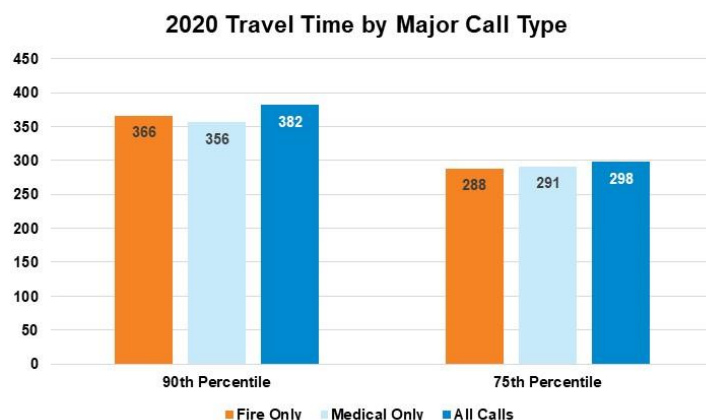
may require alternative solutions to those prescribed in the Ontario Fire Code. Fire plans examination staff reviewed 1,766 applications in 2020.



Conducting a Fire Safety Inspection

Emergency Response

The travel time target for the first arriving vehicle on scene is 240 seconds (four minutes) or less 75 per cent of the time. MFES meets that target 60 per cent of the time (as of December 2020). The five-year average is 55 per cent. Data suggests that 2020 was an anomaly related to COVID-19. Travel time can vary by call type depending on volume and complexity.



In 2019 Council approved the construction of seven new fire stations over 12 years to address growth and support the improvement of response time. Fire Station 120 was the first station built. It was put into service in November 2019.

The remaining six stations will be in the following areas:

Station	Location
123	Collegeway & Winston Churchill
124	Cawthra & Dundas
125	10th Line & Aquitaine
126	Mavis & Dundas
127	Lorne Park
128	North Lakeview

Fire station 125 will be the next new station. Site work has begun with design expected to start in 2022.

It is anticipated that at the completion of the new infrastructure program, response will reach the travel time target.

MFES must position itself for the future. The city is undergoing rapid intensification and future growth predictions indicate considerable vertical growth, particularly in the downtown core.

Inspiration Port Credit, Inspiration Lakeview, Dundas Connects and the Downtown Master Plan will change the landscape of Mississauga. As communities and demographics change, the call volume, type and complexity change. There is a direct correlation between increased population and increased travel time. Consideration must be given to the optimal locations, number of vehicles, staffing and programming required to match resources to risk.



Fire Response

One of the key priorities of the fire station renovation program approved by Council in May 2021 is the conversion of one-truck fire stations to accommodate staffing requirements for two trucks. This does not mean all fire stations will have two vehicles, but it allows MFES the flexibility to expand and/or change programming to address future risk if required. The plan is to renovate two stations every year beginning in 2022/2023. A priority order has been established; however, it will be fluid, taking into consideration operational and relocation

requirements. The timing and prioritization of the renovations are based on the following criteria:

- **Washroom Facilities** - Stations which do not currently have provisions for female/gender neutral washrooms
- **AODA/Legislative Requirements** - Stations that do not accommodate accessibility requirements as per the 2015 City of Mississauga Standard
- **Age & Condition** - Stations where the age and overall condition of the facility require immediate remediation
- **Geographical Response Area** - Stations are grouped in order to ensure two stations in adjacent response areas will not be under renovation at the same time. This will ensure the ability to maintain appropriate service levels during construction

See the Maintaining City Infrastructure section for more detail on renovation plans.



Fire Station 101 – Built 1974



Fire Station 109 – Built 1976

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 projects and improvements completed include:

- Improved first-attempt property access by 50 per cent in the fire safety inspection process
- Increased the number of complete permit submissions that met legislated deadlines by 23 per cent and improved overall customer experience. While this project was completed in 2016, it has reaped benefits over the past five years both in internal process improvements and customer experience

Completed Initiatives					Total Benefits	
Improvement Type	2014 – 2019	2020	Up to Sep 2021	Total	Type	Total
Small Improvements	75	22	2	99	Cost Savings and Avoidance	\$779,794
Rapid Improvements	2	2	1	5	Customer Service Improvements	67
Projects	4	0	0	4	Safety Improvements	33
Total	81	24	3	108	Environmental Improvements	42
In-progress Initiative	Goals of the Initiative					
Fire Mechanical Division "5S" Organization	<ul style="list-style-type: none"> • Reduce the number of inventory items by 25 per cent • Improve floor square footage by 20 per cent • Improve searchable tool layout for the mechanics staff by 10 per cent • Increase safety in the mechanical bay 					

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

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 2017 CRA
- Constructing new fire stations to improve response time both city wide and in the immediate communities

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
- Including “Net Zero” construction for new fire stations



Firefighter Providing Oxygen to Family Pet

Transforming Service with Technology

The assessment and use of emerging technologies to reduce response time, ensure accuracy of data capture, and assist with environmental protection is an ongoing trend in the industry. When matched with appropriate resourcing and good policy, technology can be extremely effective in improving service.

Traffic Pre-emption

Most major intersections in the City have traffic signal pre-emption for fire vehicles. Traffic signal pre-emption is an intelligent transportation system used to manipulate traffic signals to give emergency vehicles priority when travelling through signalized intersections. They are commonly based on line-of-sight technologies whereby an emitter within a vehicle sends a signal to a receiver mounted at a traffic light. In the context of fire service, these systems provide travel time and public safety advantages. Traffic signal pre-emption systems can assist in clearing intersections and/or controlling surrounding traffic signals that are equipped with the technology. Such systems can allow emergency vehicles to pass through intersections more efficiently and safely, reducing emergency response times.

Mobile Field Technology

MFES has completed the vetting and scanning of paper fire inspection files and will be moving to mobile field technology for fire inspection staff. This will improve the delivery of inspection and enforcement services by allowing them to access and update files, maps and building data remotely.

Voice Communication System (VCOM)

VCOM is the infrastructure that supports all portable radio transmission. This system includes Region of Peel, Brampton,

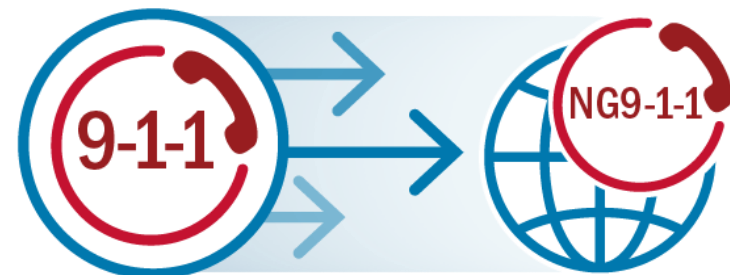
Caledon Fire, MFES, City of Mississauga, Alectra and the Canadian Border Services Agency. MFES has 378 radios on the network which is a 6.86 per cent proportionate share. Some planned improvements in 2022 include improved interoperability between allied agencies, a new fire paging system, and in-building enhancements for problematic areas.

Computer Aided Dispatch (CAD) Replacement

Improvements that will go live in late 2021 or early 2022 are being made to the CAD system. CAD is an incident management software system that includes call handling and dispatching, intelligent mapping, field communications, data reporting and analysis and application integration. The current system is dated and this upgrade will ensure continued reliability of routing, dispatching and data information capture.

Next Generation 9-1-1 (NG9-1-1)

NG9-1-1 is a new system that will replace the current 9-1-1 infrastructure to address the changing needs of emergency communications and service delivery. It will enable digital information such as text, videos and photos to be sent from the public to the 9-1-1 communication centre. This information can then be relayed to emergency responders.



Maintaining City Infrastructure

Facilities

A long-term infrastructure plan is in place to address the recommendations from the 2019 Building Condition Audit.

There are 17 fire stations that require renovation, 13 of which were constructed more than 30 years ago and have had no significant renovations since the time of construction.

Notwithstanding the age and condition of the stations, lifecycle upgrades also take into consideration changes in industry best practice and updated standards. These include health and safety, accessibility, staff composition and risk.

Health and Safety

As in every industry, standards and guidelines evolve over time. One of the most significant drivers of change in Fire & Emergency Services is the acknowledgement that cancer rates among firefighters, both active and retired, are much higher than rates in the general public. Front-line operations staff are at a high risk of exposure to contaminants, carcinogens and other hazardous substances. As a result design standards for fire stations now include provisions for containment and avoidance of cross-contamination as well as proper storage for personal protective equipment. New design recommendations include proper storage and ventilation for contaminated personal protective equipment in a separate room with isolated HVAC to allow for off-gassing to be exhausted to the outside.

Staffing Composition

Prior to the construction of Fire Station 120, the last fire station was built in 2003. At that time MFES had eight female firefighters. In 2021 there are 40. There are currently eight stations that do not have provisions for female washroom/changeroom facilities. Many stations have been temporarily modified to house female firefighters. As the staffing

composition continues to change, stations must be modified to accommodate all employees.

Accessibility

Section 4.5.11 of the 2015 City of Mississauga Facility Accessibility Design Standards defines the specifications for accessible/barrier free design for fire stations. Areas of fire stations that are likely to be used by the public, including the apparatus bay, must be accessible. Only areas that are intended for the exclusive use of firefighters (such as fitness rooms and dormitories) are exempt. All 17 of the identified stations require work to provide an accessible universal washroom in order to be compliant.

Equipment

Currently MFES maintains a capital budget that allows for the purchase of new equipment and the replacement and refurbishment of existing equipment. As part of the City-wide Asset Management program, MFES will be developing an equipment lifecycle program that will help inform the business planning and budgeting process.

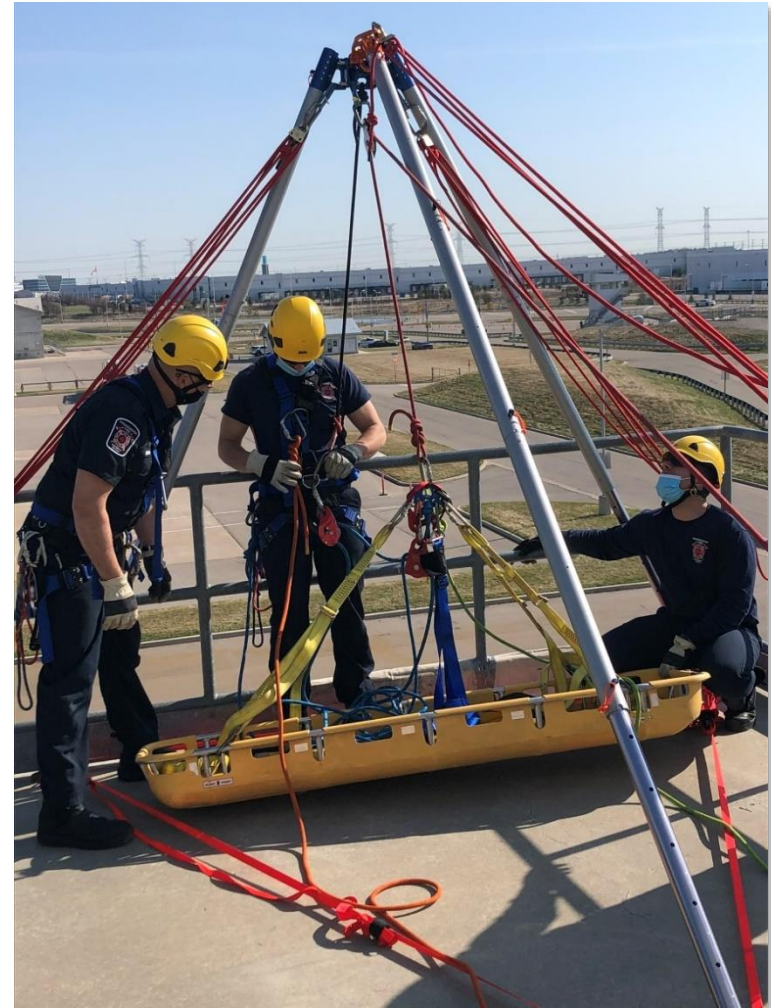
Each fire station and truck must be appropriately equipped to meet the needs of the communities it serves. MFES Operations section responds to various types of emergencies including fires, medical emergencies, motor vehicle accidents, public hazard situations, hazardous material (HAZMAT), and technical rescues. All of these disciplines use specialized equipment and require highly trained staff to respond to various emergencies. This equipment must be tested and evaluated regularly to ensure reliability, and confirm that legislative requirements and manufacturer recommendations are met. This includes the testing of ground and aerial ladders, pumps, generators, hose and other equipment used for auto extrication and other rescues. A consistent and ongoing investment is critical to maintain

equipment within its recommended lifecycle. Forecasted development and growth will add to the total inventory pressures. A formal lifecycle replacement model will provide a predictable and reliable funding model and subsequently effective service delivery.

Vehicles

The 2019 Fire & Emergency Services Master Plan recommended the implementation of a lifecycle replacement plan for fleet, equipment and facilities. In 2016 a lifecycle review of the fire fleet was conducted. A lifecycle replacement schedule was implemented that reflected a replacement schedule of 12 years for front-line vehicles and three years in reserve rather than the former 15 front-line and five in reserve.

In 2017 Council approved \$22.4 million over five years to support the replacement of aging front-line fire apparatus. Since that time MFES has replaced 19 of its 31 front-line vehicles. Funding within the 10-year capital budget has been identified for the purchase of new and replacement equipment to support front-line operations.



High Angle Rescue Training

People and Culture

A municipality is a service organization, and people deliver services. The continuous understanding, balancing and development of the City's workforce are essential to its members' success in delivering superior service. The following describes this Service Area's people, and its plans to foster the supportive culture that enables them to succeed in their work with trust, quality and excellence.

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. There are 14 non-union positions. Eighty-three per cent of labour is related to front-line firefighting operations. Recruitment for fire suppression staff is generally done twice per year to fill vacancies resulting from retirements.

Our Structure

Community Risk Reduction

- Public fire safety education
- Fire safety inspections
- Crew fire safety assessments
- Emergency Response

Infrastructure Renewal

- Facility renovations
- New infrastructure
- Fleet repair and maintenance
- Equipment Lifecycle

Health and Safety

- Training to Industry Standards

- Staff Professional Development
- Maintaining Existing Infrastructure
- Station Rehabilitation



Public Educators at a community event

Our Talent

The Fire Prevention & Life Safety section 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

In Operations there are over 650 staff at various levels that require ongoing skills development and upgrading. Staff in the Training 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. There are currently six technicians who are certified as Emergency Vehicle Technicians. The position of Small Fleet Mechanic specializes in the repair and maintenance of specialized vehicle and tool requirements.

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. These include 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.

Requests for staffing for the coming four years are related to critical, risk-reduction programming detailed in the Fire & Emergency Services Master Plan. They include public education staff, fire safety inspectors, training officers and new suppression staff to support new fire stations. The increase of 12 FTEs showing in 2022 on the following table reflects the positions included in this plan's four 2022 Budget Requests.

Proposed Full-time Equivalent Staffing Distribution by Program

Program	2021	2022	2023	2024	2025
Fire Building Maintenance	3.0	3.0	3.0	3.0	3.0
Fire Support Services	47.0	49.0	49.0	49.0	49.0
Fire Vehicle Maintenance	13.0	13.0	14.0	14.0	14.0
Prevention	66.0	75.0	81.0	81.0	81.0
Suppression	634.0	635.0	675.0	675.0	695.0
Total Service Distribution	763.0	775.0	822.0	822.0	842.0

Note: Numbers may not balance due to rounding.

Proposed Operating Budget

This part of the Business Plan sets out the financial resources required to deliver the proposed 2022-2025 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 2021 was \$121 million and the proposed budget for 2022 is \$131 million.

Total Changes to Maintain Current Service Levels

In 2022, the impact of maintaining current service levels for Fire & Emergency Services is an increase of approximately \$9.8 million. Highlights of the proposed budget changes include:

- \$4.1 million in labour adjustments including the annualization of prior year Budget Requests
- \$170,000 increase for PPE requirements
- \$5.5 million transfer to fire safety reserve
- \$161,000 increased revenue

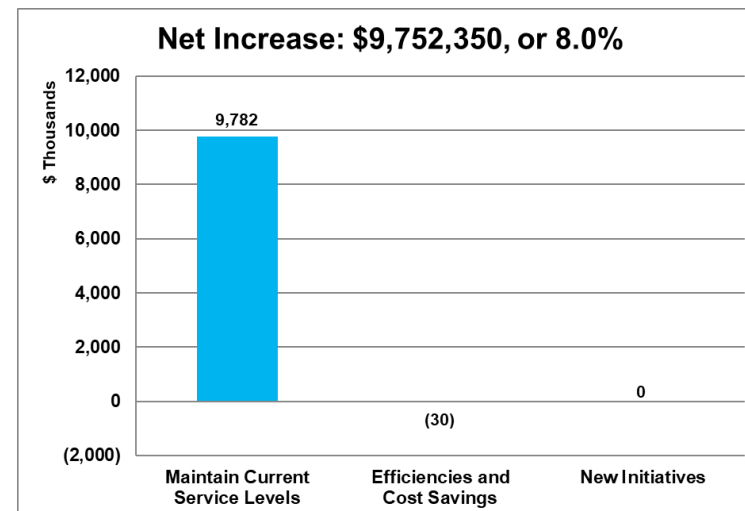
Efficiencies and Cost Savings

- Reduction of \$30,000 identified in staff development costs

New Initiatives

- Two additional public educators in Fire Prevention to support the targeted public education program (BR #5370)
- Seven additional fire safety inspectors to support the proactive fire inspection program (BR #5371)
- Two training officers to support changing industry and legislative training requirements for front line staff (BR #5454)
- One fire safety engineer to respond to complex building permit applications that require alternative solutions (BR #5519)

Proposed Changes for 2022 Net Operating Budget by Category



Operating Budget Details

The following table identifies the budgeted and forecasted operating expenditures and revenues for 2022-2025, as well as the 2021 Budget and the 2020 actuals by major program within the Service Area.

Proposed Budget by Program

Description	2020 Actuals (\$000s)	2021 Budget (\$000s)	2022 Proposed Budget (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)
Expenditures to Deliver Current Services						
Fire Building Maintenance	1,440	1,482	1,509	1,524	1,555	1,582
Fire Support Services	7,888	8,280	7,696	7,863	8,022	8,179
Fire Vehicle Maintenance	4,516	4,539	4,767	4,838	4,889	4,939
Prevention	6,695	9,184	9,465	9,946	10,391	10,799
Suppression	101,204	104,545	114,505	123,199	133,583	142,339
Total Expenditures	121,743	128,030	137,943	147,370	158,441	167,839
Revenues	(1,822)	(2,306)	(2,467)	(2,467)	(2,467)	(2,467)
Transfers From Reserves and Reserve Funds	(560)	(4,467)	(4,467)	(4,467)	(4,467)	(4,467)
New Initiatives			0	93	129	132
Proposed Net Budget	119,361	121,257	131,009	140,529	151,636	161,037

Expenditures Budget - Changes by Year			8%	7%	8%	6%
Proposed Net Budget - Changes by Year			8%	7%	8%	6%

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 2021 budget for comparison. The three columns to the far right of the table show the totals proposed for 2022 and their dollar and percentage changes over 2021. The second table summarizes the proposed 2022 budget and 2023-2025 forecasts.

Summary of Proposed 2022 Budget

Description	2021 Approved Budget (\$000s)	Maintain Current Service Levels (\$000s)	Efficiencies and Cost Savings (\$000s)	Annualized Prior Year's Budget Decisions (\$000s)	Operating Impact of New Capital Projects (\$000s)	Proposed New Initiatives (\$000s)	Special Purpose Levies (\$000s)	Proposed 2022 Budget (\$000s)	\$ Change Over 2021 (\$000s)	% Change Over 2021
Labour & Benefits	112,992	4,144	0	0	0	1,016	0	118,153	5,160	5%
Operational Costs	5,352	328	(30)	0	0	58	0	5,707	356	7%
Facility, IT and Support Costs	952	(79)	0	0	0	0	0	873	(79)	(8%)
Transfer To Reserves & Reserve Funds	8,734	5,551	0	0	0	0	0	14,284	5,551	64%
Total Gross Expenditures	128,030	9,943	(30)	0	0	1,074	0	139,017	10,987	9%
Total Revenues	(2,306)	(161)	0	0	0	0	0	(2,467)	(161)	7%
Transfer From Reserves & Reserve Funds	(4,467)	0	0	0	0	(1,074)	0	(5,541)	(1,074)	24%
Total Net Expenditures	121,257	9,782	(30)	0	0	0	0	131,009	9,752	8%

Summary of Proposed 2022 Budget and 2023 - 2025 Forecasts

Description	2020 Actuals (\$000s)	2021 Approved Budget (\$000s)	2022 Proposed Budget (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)
Labour & Benefits	106,874	112,992	118,153	124,789	130,972	136,474
Operational Costs	5,280	5,352	5,707	5,763	5,787	5,804
Facility, IT and Support Costs	855	952	873	858	864	875
Transfer To Reserves & Reserve Funds	8,734	8,734	14,284	20,110	27,889	34,503
Total Gross Expenditures	121,743	128,030	139,017	151,520	165,512	177,656
Total Revenues	(1,782)	(2,306)	(2,467)	(2,467)	(2,467)	(2,467)
Transfer From Reserves & Reserve Funds	(600)	(4,467)	(5,541)	(8,524)	(11,409)	(14,151)
Total Net Expenditures	119,361	121,257	131,009	140,529	151,636	161,037

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 current service levels, taking into account efficiencies, cost savings, and cost increases arising from prior-year decisions.

Category	2021 Budget (\$000s)	2022 Proposed Budget (\$000s)	Change (\$000s)	Details (all values in thousands)
Labour and Benefits	112,992	117,136	4,144	Increase Reflects Labour Adjustments and Other Fringe Benefit Changes
Administration and Support Costs	952	873	(79)	(\$58) Reduction in Recreation recovery (\$21) Reduction in Divisional Support Services recovery
Advertising & Promotion	66	66	0	
Communication Costs	453	578	125	Cost increases for shared VCOM cost agreement
Contractor & Professional Services	105	105	0	
Equipment Costs & Maintenance	497	521	24	Increase due to added annual lease for portable on-scene washroom facilities
Finance Other	5	6	1	
Materials, Supplies & Other Services	1,163	1,333	170	Increase due to medical PPE needs
Occupancy & City Costs	1,104	1,111	7	Increased utilities
Staff Development	417	387	(30)	Reduction for staff development specifically seminars/workshops
Transfers To Reserves and Reserve	8,734	14,284	5,551	Increase to fund Public Safety Fire Fund
Transportation Costs	1,541	1,541	0	
Subtotal - Other Operating Costs	15,037	20,807	5,770	
Total Revenues	(2,306)	(2,467)	(161)	\$150 Increase for rightsizing \$11 Increase due to Fees & Charges
Transfers From Reserves and Reserve Funds	(4,467)	(4,467)	0	
Subtotal - Revenues	(6,773)	(6,934)	(161)	
Total	121,257	131,009	9,752	

Note: Numbers may not balance due to rounding.

Proposed New Initiatives

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 #	2022 FTE Impact	2022 Proposed Budget (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2022 to 2025 FTE Impact	2022 to 2025 Capital (\$000s)
Fire Public Education Program*	5370	2.0	0	0	0	0	2.0	8
Proactive Fire Inspection Program*	5371	7.0	0	0	0	0	13.0	28
Fire Professional Standards and Evaluation Program*	5454	2.0	0	0	0	0	2.0	8
New Fire Station 123*	5508	0.0	0	0	0	0	20.0	12,237
Fire Safety Engineer*	5519	1.0	0	0	0	0	1.0	4
Fire Small Fleet Mechanic	5527	0.0	0	93	129	132	1.0	0
New Fire Station 124*	5556	0.0	0	0	0	0	20.0	12,237
New Fire Station 125*	9102	0.0	0	0	0	0	20.0	10,637
Total		12.0	0	93	129	132	79.0	35,159

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

* Indicates initiatives funded through the Public Fire Safety Program Reserve

20 Firefighters for Station 124 are in 2023

20 Firefighters for Station 125 are in 2023

20 Firefighters for Station 123 are in 2025

Proposed Initiative

Fire Public Education Program

Department

Community Services Department

Service Area

Fire & Emergency Services

Description of Budget Request

This BR requests two permanent FTEs for the completion 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)	2022	2023	2024	2025
Gross Expenditures	187.1	276.3	306.5	315.6
Reserves & Reserve Funds	187.1	276.3	306.5	315.6
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	2.0	2.0	2.0	2.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	50.0	8.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Data averaged over the past five years indicates that 43 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. A smoke alarm program is 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 and the needs and circumstances of a large, growing city, eight Public Education Officers will be required over a four-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

To encourage fire safe behaviour will reduce both the probability and the consequences of a fire emergency. 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.

Proposed Initiative

Proactive Fire Inspection
Program

Department

Community Services Department

Service Area

Fire & Emergency Services

Description of Budget Request

In 2022 seven permanent FTEs are required to continue to develop, staff, implement and measure proactive fire and life safety inspections. This program will establish appropriate inspection cycles for all occupancy types based on key risks identified in the CRA. A further six FTEs will be requested for 2023 in the next business planning cycle.

Required Annual Operating Investment

Impacts (\$000s)	2022	2023	2024	2025
Gross Expenditures	495.7	976.1	1,521.1	1,752.6
Reserves & Reserve Funds	495.7	976.1	1,521.1	1,752.6
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	7.0	13.0	13.0	13.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	70.0	28.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Group F Industrial Occupancies represent 1.9 per cent of the City's property stock and 11.6 per cent of the fire loss. This is more than 1.5 times the provincial average of 7.3 per cent. These types of properties typically have a high fuel load (combustible contents) which means a fire could be catastrophic. In 2022 the program will begin the process of getting all of the high-hazard industrial properties on an annual inspection cycle.

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. 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 fire and life safety risk inherent in various occupancy types by ensuring compliance with the Ontario Fire Code. High-hazard industrial occupancies require automatic fire suppression systems including sprinklers to mitigate risk. By inspecting these properties annually, the City will have a better understanding of property use and contents and be able to ensure that the appropriate suppression systems are in place to mitigate the risk and reduce loss in the event of a fire.

Proposed Initiative

Fire Professional Standards and Evaluation Program

Department

Community Services Department

Service Area

Fire & Emergency Services

Description of Budget Request

This Budget Request for two permanent FTEs 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)	2022	2023	2024	2025
Gross Expenditures	288.8	390.9	397.8	404.7
Reserves & Reserve Funds	288.8	390.9	397.8	404.7
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	2.0	2.0	2.0	2.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	0.0	8.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Currently the Professional Development and Accreditation section consists of a group of training officers who train 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 are required. The Province of Ontario mandates many firefighter certification programs and evaluation requirements to ensure safety and consistency across the province.

Details of Service Change

The Professional Development and Accreditation section of MFES has been divided into two distinct sections. One will focus on the development of training program curriculum and the other on the delivery and evaluation. In order to execute this plan in its entirety, two new permanent FTEs are requested in 2022. In an effort 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

The approval of this request will support MFES in meeting the requirements related to the certification and evaluation of municipal fire and emergency services staff. It supports the standard of service as prescribed in the Municipal Fire Establishing and Regulating By-Law (0269-2016) and meets industry expectations for a large urban municipality.

Proposed Initiative

Fire Safety Engineer

Department

Community Services Department

Service Area

Fire & Emergency Services

Description of Budget Request

This Budget Request is to add a permanent Fire Safety Engineer position in the Plans Examination unit 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)	2022	2023	2024	2025
Gross Expenditures	102.4	148.7	155.6	169.2
Reserves & Reserve Funds	102.4	148.7	155.6	169.2
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	1.0	1.0	1.0	1.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	0.0	4.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

The City and provincial planning policies have identified intensification as a primary objective of community growth, which means that high-rise buildings will be a significant component of future development plans. The permitting of construction for these types of structures and other complex applications can take a significant amount of time and requires particular expertise.

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 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. 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

Once of the key recommendation's in the Fire Master Plan was to put more focus on the application of building code requirements during the plans examination process, based on the key risks identified in the CRA. This position will be responsible to address more complex new builds with a focus on ensuring buildings are code compliant prior to occupancy.

Proposed Initiative

Fire Small Fleet Mechanic

Department

Community Services Department

Service Area

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 and small equipment. 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)	2022	2023	2024	2025
Gross Expenditures	0.0	92.7	129.0	131.6
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	92.7	129.0	131.6
* Net Change in \$		92.7	36.3	2.6
FTEs	0.0	1.0	1.0	1.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & 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 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 and front-line equipment.

Details of Service Change

This position will be dedicated and licensed to work on all small vehicles and specialty equipment. The position will be responsible for the repair and maintenance of 40 small vehicles and all small equipment such as front-line saws, fans, lawn and winter maintenance equipment. This FTE 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 mechanic FTEs.

Service Impact

This request will improve the capacity 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.

Proposed Initiative

New Fire Station 124

Department

Community Services Department

Service Area

Fire & Emergency Services

Description of Budget Request

This Budget Request is for 20 FTEs to appropriately staff a new fire station in the Cawthra & Dundas Area as part of a 12-year plan to improve emergency response times city wide. These FTEs are divided between four shifts. There are five firefighters assigned to each shift to ensure 24/7 coverage.

Required Annual Operating Investment

Impacts (\$000s)	2022	2023	2024	2025
Gross Expenditures	0.0	645.0	2,061.8	2,430.8
Reserves & Reserve Funds	0.0	645.0	2,061.8	2,430.8
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	20.0	20.0	20.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	7,500.0	1,600.0	8,637.0	2,000.0	0.0

Why Staff Recommend this Initiative

MFES meets the four-minute NFPA travel time target 61 per cent of the time under current conditions. MFES's target is to reach 75 per cent within the next 12 years. Approximately 95.8 per cent of the building stock in the City is classified as residential. Call data over the past five years indicates that 60 per cent of the structure fires occur in residential structures. The best way to effect a positive outcome is to ensure fast and efficient response.

Details of Service Change

Operating costs are for the FTEs required to adequately staff this station 24 hours per day 365 days per year. Front-line operations have four platoons. Each fire truck has 20 staff assigned to it (five per platoon). Twenty front-line operations personnel are required in 2023 to adequately staff this station. 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 station is a critical part of the 12-year plan to improve response time across the city. It was identified in the 2019 Fire & Emergency Services Master Plan as a critical piece of the infrastructure required to increase the percentage of the time that MFES meets the NFPA standard of four minutes for travel time. This station will service the Mississauga Valleys, Applewood and Cooksville (East) neighbourhoods as well as the Dixie Employment Area.

Proposed Initiative

New Fire Station 125

Department

Community Services Department

Service Area

Fire & Emergency Services

Description of Budget Request

This Budget Request is for 20 FTEs to appropriately staff a new fire station that will service the 10th Line & Aquitaine area as part of a 12-year plan to improve emergency response times city wide. These FTEs are divided between four shifts. There are five firefighters assigned to each shift to ensure 24/7 coverage.

Required Annual Operating Investment

Impacts (\$000s)	2022	2023	2024	2025
Gross Expenditures	0.0	1,620.3	2,499.7	2,877.9
Reserves & Reserve Funds	0.0	1,620.3	2,499.7	2,877.9
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	20.0	20.0	20.0

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

Required Capital Investment

Total Capital (\$000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	0.0	8,637.0	2,000.0	0.0	0.0

Why Staff Recommend this Initiative

Station 125 has been identified as a priority because this is a high-growth area. The Shaping Ninth Line future growth plans suggest the development of the lands on the west side of Ninth Line. The plan indicates the provision of mixed residential occupancies to accommodate diverse housing options and community facilities.

Details of Service Change

Operating costs are for the FTEs required to adequately staff this station 24/7/365. Front-line operations have four platoons. Each fire truck has 20 staff assigned to it (five per platoon). Twenty front-line operations personnel are required in 2023 to adequately staff this station. The station will serve this immediate community and anticipated growth and provide support in adjacent response areas. This will be a state of the art, net-zero building that will enhance the City's reputation as a leading city in building standards. There will be on-site renewable energy devices to offset the building's annual energy consumption and 30 per cent or more parking will be equipped with electric vehicle supply equipment. 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 station is a critical part of the 12-year plan to improve response time city wide. Based on data captured after the opening of the last new fire station (Station 120 - Fairwind & Eglinton) it is anticipated that response times in the immediate response area could improve by more than 10 seconds. Improvements in response time positively impact patient survivability rates and reduce fire loss.

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 2022-2031 Capital Budget by Program

Program Expenditures	2022 Proposed Budget (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026-2031 Forecast (\$000s)	2022-2031 Total (\$000s)
Stations & Auxiliary Buildings	9,950	18,850	16,600	16,200	109,600	171,200
Vehicles & Equipment	9,127	8,607	6,350	10,712	45,393	80,188
Total	19,077	27,457	22,950	26,912	154,993	251,388

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

Proposed 2022-2031 Capital Forecast Highlights:

Facilities

- \$4.5 million for Fire Station 108 Renovation (2022-2023)
- \$4.5 million for Fire Station 102 Renovation (2022-2023)
- \$8.4 million for New Fire Station 125 – Tenth Line & Aquitaine (2022-2023)
- \$10.0 million for new Fire Station 124 – Dundas & Cawthra (2022-2024)

Vehicles & Equipment

- \$40.0 million for the replacement of front-line vehicles (2022-2031)
- \$6.0 million for new and replacement Personal Protective Equipment (2022-2031)
- \$16.4 million for the replacement of front-line equipment (2022-2031)
- \$2.5 million for technical rescue equipment replacement (2022-2031)
- \$438,000 for voice communication infrastructure upgrade (2022-2028)
- \$875,000 for fire vehicle refurbishment (2022-2031)

Proposed 2022-2031 Capital Budget by Funding Source

The following table provides the funding sources proposed to fund the capital portion of the proposed 2022-2025 Business Plan & 2022 Budget and the consolidated forecast for 2026-2031.

Funding	2022 Proposed Budget (\$000s)	2023 Forecast (\$000s)	2024 Forecast (\$000s)	2025 Forecast (\$000s)	2026-2031 Forecast (\$000s)	2022-2031 Total (\$000s)
Tax Capital	18,927	27,407	22,950	21,912	125,429	216,624
Planning Act Reserve Funds	0	0	0	0	0	0
Development Charges	150	50	0	5,000	29,564	34,764
Developer Contributions	0	0	0	0	0	0
Gas Tax	0	0	0	0	0	0
Recoveries	0	0	0	0	0	0
Subsidies and Senior Govt. Level Grants	0	0	0	0	0	0
Total	19,077	27,457	22,950	26,912	154,993	251,388

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

Proposed 2022 Capital Budget Detail

The following tables provide a detailed listing of proposed capital projects for 2022.

Program: Stations & Auxiliary Buildings

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net (\$000s)	Funding Source
CMFS000149	Design and Construction Station Renovation 108 (Streetsville)	900	0	900	Tax Capital
CMFS00044	New Fire Station 124 - Dundas & Cawthra - Land, Design and Construction	1,600	0	1,600	Tax Capital
CMFS00052	Fire & Emergency Services Future Directions Master Plan Review	150	0	150	Development Charges
CMFS00145	New Fire Station 125 - Tenth Line and Acquitaine - Design and Construction	6,400	0	6,400	Tax Capital
CMFS008238	Design and Construction Station Renovation 102 (Lakeview)	900	0	900	Tax Capital
Total		9,950	0	9,950	

Note: Numbers may not balance due to rounding.

Program: Vehicles & Equipment

Project Number	Project Name	Gross Cost (\$000s)	Recovery (\$000s)	Net (\$000s)	Funding Source
CMFS00058	Replacement of Emergency Response Tools and Equipment	2,000	0	2,000	Tax Capital
CMFS00069	Personal Protective Equipment Replacement	342	0	342	Tax Capital
CMFS00088	Replacement of fire vehicles	4,000	0	4,000	Tax Capital
CMFS00146	New Fire Truck and Equipment - Fire Station 125	2,237	0	2,237	Tax Capital
CMFS007779	Personal Protective Equipment for New Hires	45	0	45	Tax Capital
CMFS009273	Technical Rescue Equipment Replacement	250	0	250	Tax Capital
CMFS009280	VCOM Infrastructure Upgrade	153	0	153	Tax Capital
CMFS05657	Refurbish Fire Vehicles	100	0	100	Tax Capital
Total		9,127	0	9,127	

Note: Numbers may not balance due to rounding.

Proposed 2022-2031 Capital Budget by Sub-Program

The following tables provide a listing of capital needs by sub-program for 2022-2031.

Sub-Program	2022 Proposed Budget (\$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)	2031 Forecast (\$000s)	Total Forecast (\$000s)
Stations & Auxiliary Buildings											
FIRE Stations - Renovations	1,800	8,800	8,200	9,200	21,600	11,300	16,800	10,100	6,400	5,400	99,600
FIRE Stations New	8,000	10,000	8,400	7,000	6,600	6,400	3,600	11,400	3,600	6,400	71,400
FIRE Studies	150	50	0	0	0	0	0	0	0	0	200
Subtotal	9,950	18,850	16,600	16,200	28,200	17,700	20,400	21,500	10,000	11,800	171,200

Sub-Program	2022 Proposed Budget (\$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)	2031 Forecast (\$000s)	Total Forecast (\$000s)
Vehicles & Equipment											
FIRE Equipment New	45	135	90	545	45	135	45	90	45	90	1,265
FIRE Equipment Replacement	2,403	1,850	1,850	1,983	1,850	1,870	1,983	1,850	1,850	1,850	19,338
FIRE Safety Clothing Replacement	342	285	310	1,847	392	390	406	422	439	456	5,288
FIRE Vehicles	6,337	6,337	4,100	6,337	6,337	4,075	6,312	4,075	4,075	6,312	54,297
Subtotal	9,127	8,607	6,350	10,712	8,624	6,470	8,746	6,437	6,409	8,708	80,188
Total Expenditures	19,077	27,457	22,950	26,912	36,824	24,170	29,146	27,937	16,409	20,508	251,388

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