

CITY OPERATIONS

Edmonton



FLEET AND FACILITY SERVICES

2021/2022 Annual Service Plan



INDIGENOUS ACKNOWLEDGEMENT

Fleet and Facility Services acknowledges that our City operates within the traditional land of Treaty 6 Territory. We acknowledge this land as the traditional territories of many First Nations such as the Nehiyaw (Cree), Dene, Nakota Sioux (Stoney), Anishinaabe (Saulteaux), and Niitsitapi (Blackfoot). We also acknowledge this as the Métis' homeland and the home of one of the largest communities of Inuit south of the 60th parallel.

The City of Edmonton owes its strength and vibrancy to these lands and the diverse Indigenous Peoples whose ancestors' footsteps have marked this territory, as well as settlers from around the world who continue to be welcomed here and call Edmonton home.

Together we call upon all our collective honoured traditions and spirits to work in building a great city for today and future generations.

INDIGENOUS FRAMEWORK



The Indigenous Framework, released in 2021, is a living document that will continue to evolve over time as our relationships with Indigenous Peoples continue to grow. Over the course of 2021, the Seven Commitments were activated through the development of both Corporate-wide and Department-specific action plans; City employees had the opportunity to participate in a wide variety of learning opportunities; and City employees were encouraged to and given the appropriate supports to apply the four roles (listener, connector, partner, and advocate) in their everyday work.

City Operations' focus areas for 2022 include:

- » Indigenous Framework Communications Plan (started in 2021)
- » Land acknowledgements in documents (started in 2021)
- » Leadership presence at Indigenous events (started in 2021)
- » Review Branch Action Plans (BAPs) and work plans to identify opportunities to connect work to Calls to Action.
- » Establish clear signage at all City Operations facilities confirming commitment to anti-racism and that discrimination will not be tolerated.
- » Place signage with land acknowledgement in buildings/facilities.
- » Provide notice of Indigenous events on facility notice boards, electronic displays, etc.
- » Encourage and provide support (and time, if appropriate) for staff to attend Indigenous events.

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MESSAGE FROM THE BRANCH MANAGER



EDDIE ROBAR,
BRANCH MANAGER

Fleet and Facility Services continues to be a critical component of the City's commitment to delivering essential services to Edmontonians. To help meet this commitment, our branch continues to evolve and modernize the management and maintenance of the City of Edmonton's fleet of over 5,000 vehicles and equipment, and over 900 buildings and infrastructure.

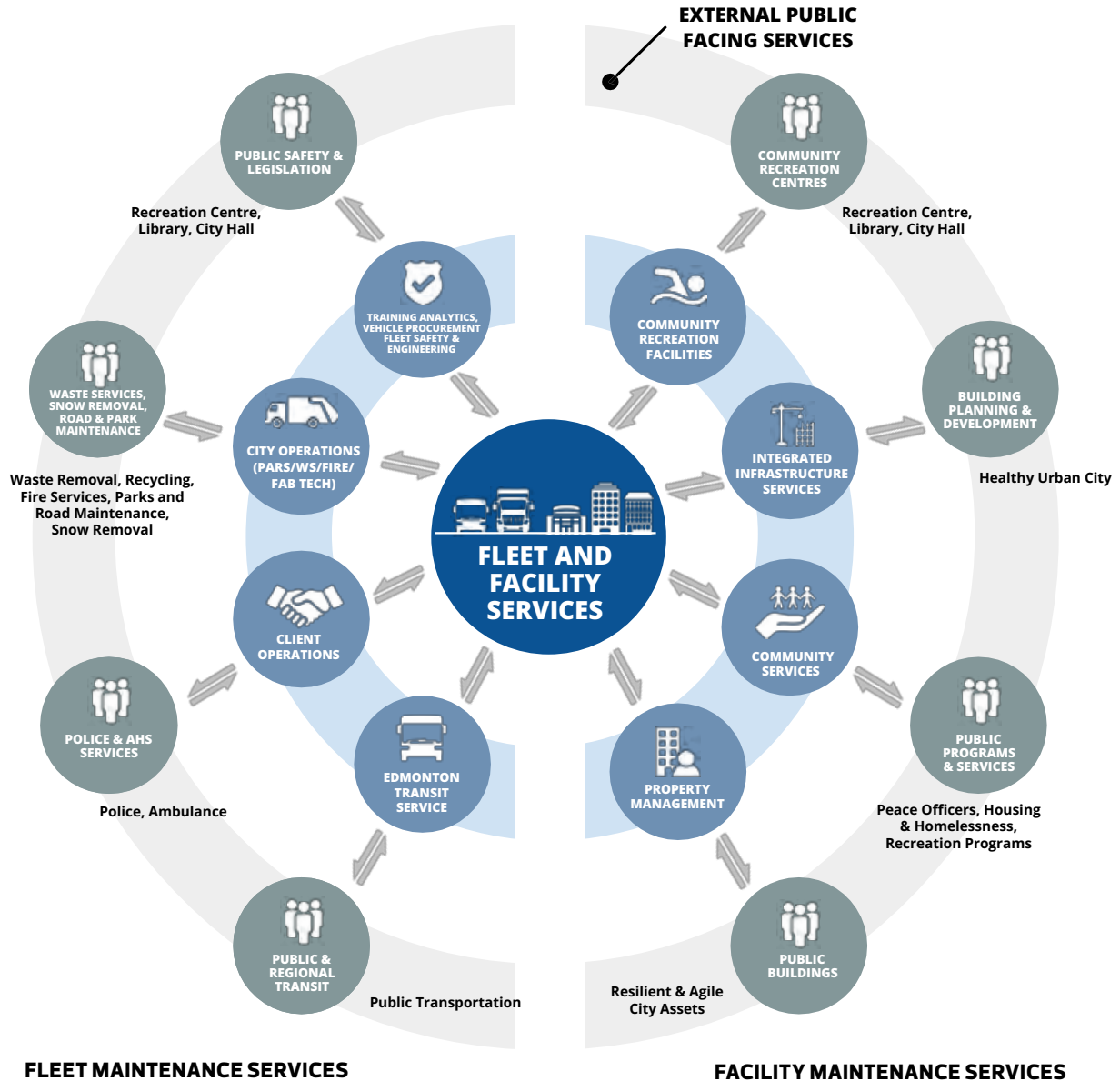
There's no question that our fleet maintenance employees are the engine behind the scenes, ensuring that vehicles, including ambulances, snow plows, police cars, waste and recycling trucks, transit buses and fire apparatus are well maintained, safe and reliable. This includes our engineering, fleet safety, environmental, administration and fabrication teams.

Fleet and Facility Services also provides service for external clients, such as our Regional Transit partners and Alberta Health Services (AHS). We support Strathcona County with bus collision repairs, capital builds and fit up of new units. We also support Spruce Grove by doing scheduled and unscheduled maintenance repairs and bus cleaning. Our employees are also trusted to provide critical maintenance for AHS's lifesaving fleet of ambulances.

Facility Maintenance Services employees provide a solid foundation on which to operate our City facilities. They ensure that City Hall, recreation centres, libraries, transit shelters, spray parks and other amenities are safe, clean and functional. From the planners, to administration, support services, carpenters, painters, electricians, pipefitters, building operators and custodial teams, our work is 24/7 and, quite literally, keeps the lights on.

The coming year will be filled with many exciting foundational changes. Every day, our work ties back to one simple goal — providing safe, reliable, and well-maintained vehicles and buildings to deliver the services Edmontonians need. We're tackling this primary goal on many fronts. With a focus on our pillars of safety, quality, environmental sustainability and cost-efficiency, we strive for continuous improvement. Ultimately, we're confident the coming year will result in further service improvements and help set the stage for the City's growth to two million people by 2050.

1.0 EXECUTIVE SUMMARY



The way Fleet and Facility Services integrates and works with the other branches across the City of Edmonton and external partners can be visualized as a wheel of service delivery. Fleet and Facility Services has touch points across every branch in the City; the team is the centre hub for fleet maintenance and facility maintenance for the organization, with spokes

connected to each area. The first layer is internal support to City branches and partners, in addition to external clients who then, in turn, provide programs and services for Edmontonians; for example, ambulance, police, fire, waste collection, buildings, libraries, recreation centres and more.

Branch by the Numbers



1200+ EMPLOYEES

14 different trades across the sections



Complete mechanical and body midlife refurbishment of over **80 buses per year**



Performed **400 road tests and provided support and training for 8,500 City drivers**

MAINTAIN 900 CITY-OWNED BUILDINGS
Recreation Centres, City Hall, LRT, Libraries, Office Towers, Fire Halls, EPS, Waste Management, Spray Decks and Splash Pads



100,000
fleet work orders



39 million
LITRES OF FUEL DISPENSED

185 BUILDINGS HAVE DIGITAL BUILDING AUTOMATION

>5000 

59,000 FACILITY WORK ORDERS

VEHICLES & PIECES OF EQUIPMENT



22 municipal, transit and facility maintenance facilities

4,600+ municipal vehicles
1,047 buses & DATS vehicles

2021 Year in Review

CULTURE & ENGAGEMENT

221 PEER TO PEER RECOGNITION NOMINATIONS

SUGGESTION BOX TRANSITION TO BRIGHT IDEA GENERATOR BOX

BRANCH ANNUAL EMPLOYEE ANNIVERSARY RECOGNITION

ASK US ANYTHING VIDEO

CULTURAL COMMITMENT AWARDS

194 nominees
15 finalists
3 winners

RENEWED FOCUS OF BRANCH CULTURE & ENGAGEMENT COMMITTEE

FACILITY MAINTENANCE SERVICES

FIFA World Cup Support

59,000 work orders completed

Continued enhanced cleaning and disinfection at City facilities

Opened and closed facilities to align with Alberta public health restrictions

29,000 client service requests

60,000+ inbound support calls

Prepared Commonwealth Stadium as a temporary shelter during Edmonton's emergency responses

ONE YEAR OF SUCCESSFUL OPERATIONS IN THE ZONE MODEL

18,540 PO line items created

30,000 work orders created from notifications

SUCCESSFUL STARTUP OF:

- 5 outdoor pools
- 12 decorative water features
- 76 spray parks
- 91 irrigation systems
- 100 domestic water systems

4 arena shutdowns
3 pool shutdowns

6 new City facilities

2,391 correctives
16,536 breakdown repairs
44,610 inspections

City Hall fountain and mechanical room rehabilitation completed

Acts of Reconciliation: Government Centre murals covered and then removed

Supported Hope Mission in preparing the Spectrum building as a temporary shelter

104 electrical power shutdowns

TRANSIT FLEET MAINTENANCE

2,619 campaigns

1,031 tows & boosts

3,426 retorques

3,531 minor inspections

32,569 major inspections & correctives

85,357 running repairs

Celebrated the continuation of bus cleaning by City staff

40 capital engine mid-life refurbishments

40 auto-body mid-life refurbishments

87 engine replacements

METER SPIKE MONITORING DASHBOARD

Integration of Electric Bus into Revenue Service

External revenue from Strathcona County collision contract

40 buses with seating fully refurbished

31 buses with flip seats upholstered

PM plans implemented for:

- 588 fire suppression a/c installations
- 824 air conditioning operator shield installations
- 942 brake reline smart fare installations

Vendor Managed Inventory (VMI) implemented

TFM WORKLOAD MODEL CREATED

New Hydrogen Fuel Cell Bus

1,728 DAYS ACHIEVING CONTINUOUS BOOKOUT COMMITMENT

CONTINUED ENHANCED DISINFECTION AND CLEANING OF BUSES

MUNICIPAL FLEET MAINTENANCE

FABRICATED GOVERNMENT LRT STATION SIGNAGE

NEW TOW SHOP CALLOUT PROCESS

NEW NORTHWEST POLICE MAINTENANCE LOCATION

5 water bottle fill stations for fire hydrants designed, fabricated and installed for extreme hot weather

CONTINUED TURF OPERATIONS FIELD SERVICE

BIODEGRADABLE HYDRAULIC OIL PILOT PROJECT

4 long haul Waste trailer floors refurbished using surplus units

5 DATS units retrofitted with fareboxes

NEW AUTOMATED QUOTE SYSTEM

54.13 MWH SOLAR ELECTRICITY GENERATED AT DAVIES FACILITY

2,781 campaigns

3,569 tows & boosts

6,662 retorques

1,762 GPS units installed

6,285 minor inspections & oil changes

35,038 major inspections & correctives

72,151 running repairs

UNITS INTO SERVICE:

- 65 police vehicles
- 51 automated waste units
- 45 DATS buses
- 10 sweeper units
- 6 pumper apparatus trucks

UNIT BUILDS:

- 16 dump/sander/plow trucks
- 3 flusher trucks
- 2 9-foot dump boxes with fold down sides

BUSINESS INTEGRATION

ENTERPRISE COMMONS PROJECT SUPPORT

HYDROGEN BUS PROJECT

30 procurement contracts

126 contract amendments and renewals

304 additional contracts supported

KENNEDALE FUEL SITE RELOCATION

\$1.6M CONTRACT SAVINGS Corporate Vendor Management Strategy

563 units placed into service

97% CODE OF CONDUCT E-LEARNING COMPLETED

84 failure investigations

8,843 oil samples analyzed

230 respirator fit tests

593 courses delivered

31 new dashboards developed

360 ROAD TESTS PERFORMED

M5 V20 UPGRADE

E-BUS SUPPORT

\$1.56M WARRANTY RECOVERY

39M litres fuel dispensed

980 INCIDENT INVESTIGATIONS

869 units out of service

2 Maintenance Memos (MMs)

8 Maintenance Practice Bulletins (MPBs)

8 Standard Operating Procedures (SOPs)

\$4.68M ERA funding received (Emissions Reduction Alberta)

SAFETY & ENVIRONMENT

40 PULSE CHECKS COMPLETED TO PREPARE FOR 2022 COR AUDIT

1,123 unsafe work observations

225 near misses reported

↓28% decrease in incidents from 2020

41 single-walled underground storage tanks renewed or decommissioned

RECYCLED

- 153,000 L oil
- 16,500 L coolant
- 1,455 kg of oil containers
- 259 drums of oil filters
- 160 drums of aerosol cans
- 66 drums of electrical waste

ENVIISO ISO 14001 CERTIFIED

8 FFS facilities BOMA Best certified

2.0 INTRODUCTION

Fleet and Facility Services plays a key role in providing safe, reliable and well-maintained vehicles and buildings to deliver the services Edmontonians need. The branch touches every part of the organization and is a critical component of delivering essential services to the public.

Fleet and Facility Services continues to evolve and modernize the management and maintenance of the City of Edmonton's fleet of over 5,000 vehicles and equipment, and over 900 buildings and infrastructure. With a focus on our pillars of safety, quality, environmental sustainability, and cost-efficiency, the branch strives for continuous

improvement and is always assessing how it can best support Edmontonians' needs and expectations.

This Annual Service Plan provides an overview of service changes, major projects and infrastructure developments planned for 2022, while recapping several accomplishments from 2021.

2.1 STRATEGIC ALIGNMENT

This plan outlines priority actions that align us to realize the choices in Edmonton's City Plan and ultimately advance the four strategic goals of ConnectEdmonton, Edmonton's Strategic Plan 2019–2028 to achieve our vision of:



We advance these goals through three objectives:

- » **Strategic Objective:** Make transformational impacts in our community.
- » **Public Service Objective:** Deliver excellent services to our community.
- » **Supporting Service Objective:** Manage the corporation for our community.

Fleet and Facility Services supports departments across the City in keeping Edmonton working, moving and thriving by maintaining City assets such as transit buses and shelters, police stations, libraries, City vehicles and operational equipment, as well as City-owned recreation centres and buildings. The safety, cleanliness, reliability and maintenance of these assets enables a better life for all Edmontonians.

The health and safety of citizens and employees remains our main priority. Fleet and Facility Services supports a healthy city by ensuring the City's facilities and vehicles are safe and clean. The branch continues enhanced cleaning and disinfecting activities for the transit fleet and at all City facilities to help stop the spread of COVID-19. The branch is also responsible for upgrading and maintaining recreation and sport facilities, fountains and spray parks, which contributes to making our city healthy and enjoyable for Edmontonians.

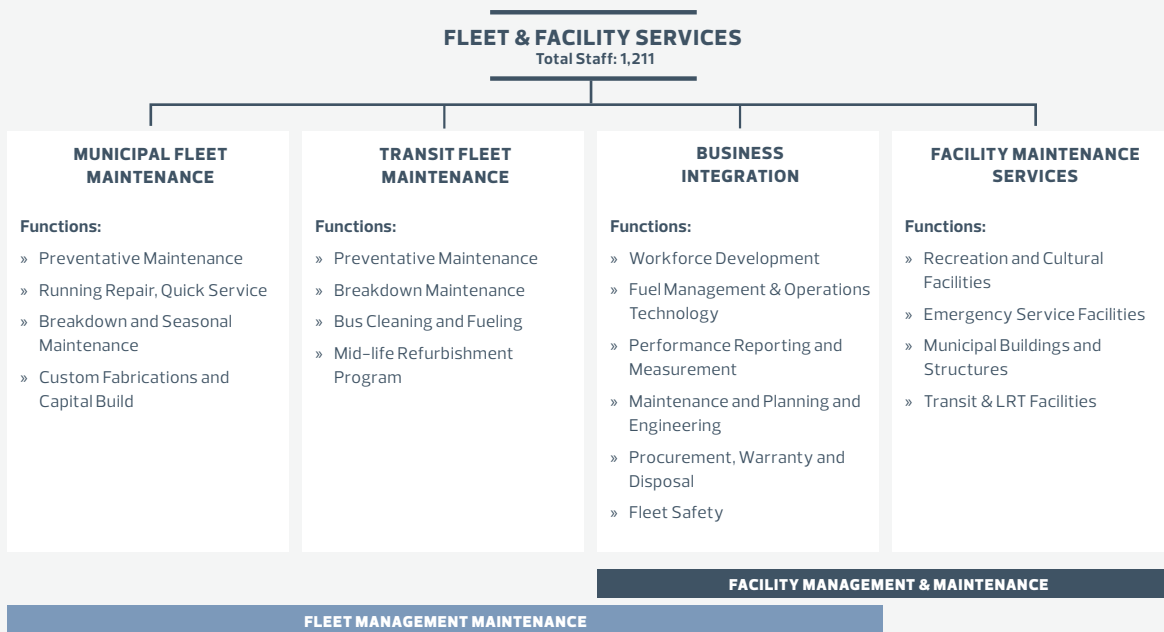
Fleet and Facility Services continually contributes to reducing environmental impacts by supporting Edmonton's Community Energy Transition Strategy through a variety of initiatives, including procuring innovative technologies, adding battery electric and hydrogen electric buses to the City's fleet and supporting the Alberta Zero Emission Hydrogen Transit Project (AZEHT).

Adding low-emission alternative fuel to the fleet and exploring hydrogen strategies for facility utility demand supports The City Plan and ConnectEdmonton's strategic goal of climate resilience. These projects will play a meaningful role in lowering the City's greenhouse gas emissions in the future. The City of Edmonton has received funding through various resources to support these strategic goals, including a grant sponsored by Alberta Ecotrust Foundation's Climate Innovation Fund (CIF). The CIF grant provides funds for local climate mitigation projects and will help the City assess electric vehicle (EV) barriers at some of our City facilities, as well as develop plans for EV preparedness. This research will help advance one of the actions in the Energy Transition Strategy: for "the City to transition its vehicles with zero-emission models, including upgrading facilities and installing charging infrastructure".

"Fleet and Facility Services supports departments across the City in keeping Edmonton working, moving and thriving..."



2.2 BRANCH STRUCTURE





Facility Maintenance Services

Facility Maintenance Services proactively maintains City-owned facilities. This includes services such as electrical work, roof repair, woodworking (carpentry), locksmith, plumbing and air conditioning repair and maintenance, including the Building Automation and Controls system, which electronically monitors building equipment for alarms and operational efficiencies. This section also provides custodial services for facilities such as recreation centres, police stations, libraries and City-owned office towers. The team also provides energy management support to Facility and Landscape Infrastructure to develop and implement energy conservation programs and initiatives for City facilities. This supports the goals identified in the City's environmental strategic plan.

Municipal Fleet Maintenance

Municipal Fleet Maintenance is responsible for the preventative maintenance, repairs, custom fabrication and seasonal maintenance of all City vehicles and equipment at the City of Edmonton. Municipal Fleet Maintenance services a complex and wide variety of vehicles and heavy/light equipment, including fire apparatus, police vehicles, waste trucks, snow plows, lawn mowers, paving machines, ice resurfacing

machines, light duty trucks, DATS buses and sewer service trucks.

Fabrication Technologies, within Municipal Fleet Maintenance, provides custom fabrication services for the City's fleet such as sanders and dump trucks. Fabrication Technologies also works on diverse projects including the High Level Bridge guard railings, Hawrelak Park and municipal cemetery entrance gates, outdoor field soccer posts, the Churchill Square tree holder and the Valley Zoo tiger cages.

Transit Fleet Maintenance

Transit Fleet Maintenance is responsible for the preventative maintenance, repairs, warranty campaigns, seasonal maintenance, daily cleaning/sanitizing and refueling of City of Edmonton buses. The section ensures, every day, that the bus fleet is safe, reliable and clean for citizens' daily commute and transportation needs. Transit Fleet Maintenance continually looks for new technology and efficiencies, such as alternative propulsion systems. To that end, in 2020, the section incorporated one of Canada's largest fleets of battery electric buses into the City's fleet.



Operational Support: Business Integration

Business Integration provides supporting services to enable effective and strategic operations within the branch. The section ensures that the needs of internal and external partners are addressed through service delivery and reporting; capital planning; capital fleet procurement and recoveries; lifecycle maintenance planning; and data that is timely, accurate, transparent and easily accessible for efficient operations. Utilizing key performance indicators and information technology, processes are constantly improved to enhance value to our partners. The section also manages vendor activities, including contract negotiations, warranty claims, vendor performance and concessions, that further ensure best value is passed on to our partners.

Ultimately this section ensures that the Fleet and Facility Services delivery model reflects partner business needs through standards and service. The M5 support team within Business Integration keeps our primary system functional and upgraded, and supports mobile phones and hardware for the branch. Business Integration also provides legislated training and manages the City's fuel services, including procurement and monitoring of fuel levels,

alternative fuels, emission standards and legislative requirements. Fleet Safety is also part of Business Integration and is responsible for managing the City's driver safety program.

Operational Support: Occupational Health and Safety & Envisio

Occupational Health and Safety (OHS) creates a safe and effective work environment by taking a proactive approach to minimizing the occurrence of injury and illness to employees. ENVISO is the City's environmental management system, and helps to ensure the branch complies with relevant regulations and prevents environmental impacts. The Joint Worksite Health and Safety Committee consists of front-line supervisors, management and worker representatives. The committee's mandate is to address safety or environmental concerns that arise, find innovative solutions and take timely action. Occupational Health and Safety and the environment are integral components of Fleet and Facility Services operations.

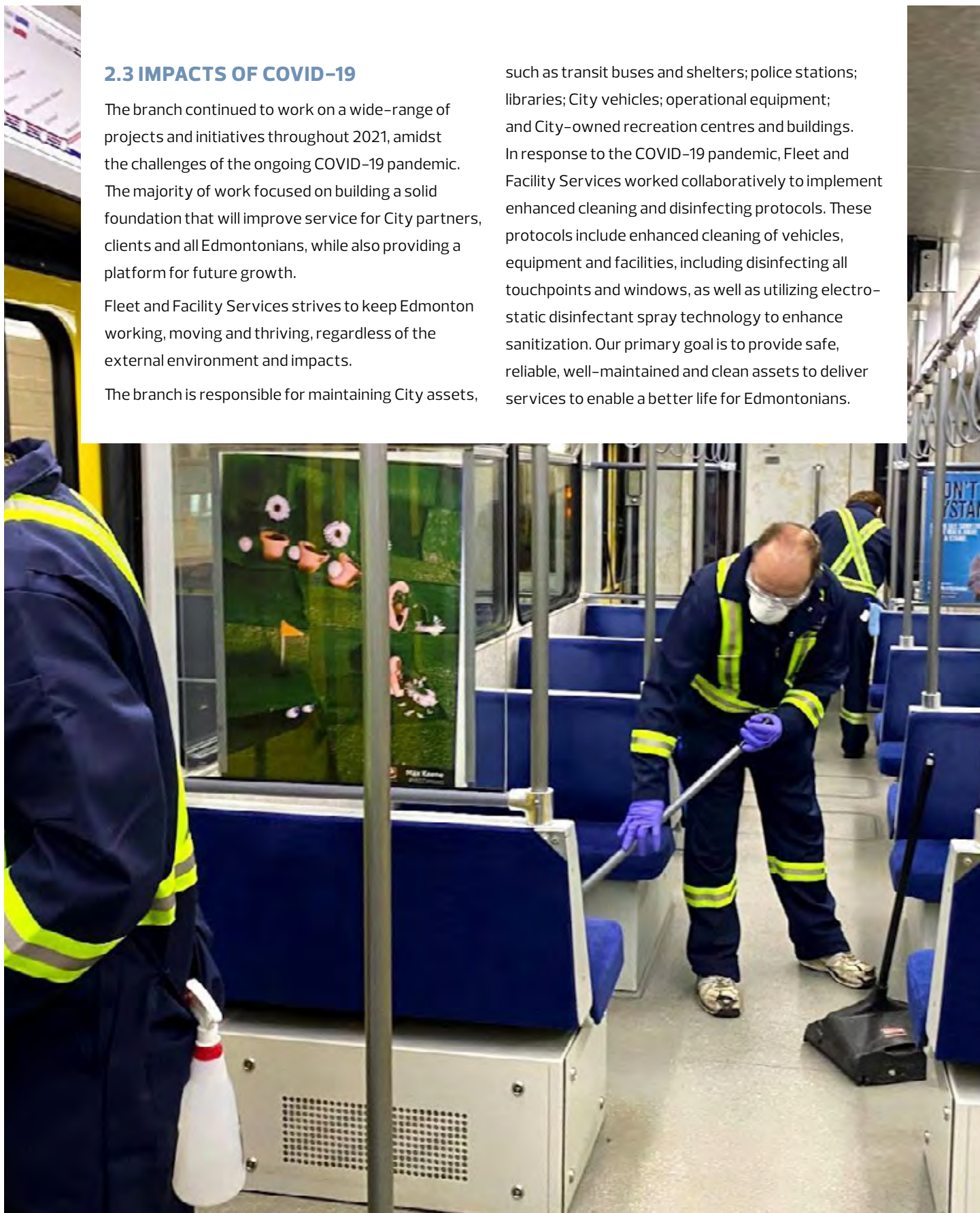
2.3 IMPACTS OF COVID-19

The branch continued to work on a wide-range of projects and initiatives throughout 2021, amidst the challenges of the ongoing COVID-19 pandemic. The majority of work focused on building a solid foundation that will improve service for City partners, clients and all Edmontonians, while also providing a platform for future growth.

Fleet and Facility Services strives to keep Edmonton working, moving and thriving, regardless of the external environment and impacts.

The branch is responsible for maintaining City assets,

such as transit buses and shelters; police stations; libraries; City vehicles; operational equipment; and City-owned recreation centres and buildings. In response to the COVID-19 pandemic, Fleet and Facility Services worked collaboratively to implement enhanced cleaning and disinfecting protocols. These protocols include enhanced cleaning of vehicles, equipment and facilities, including disinfecting all touchpoints and windows, as well as utilizing electrostatic disinfectant spray technology to enhance sanitization. Our primary goal is to provide safe, reliable, well-maintained and clean assets to deliver services to enable a better life for Edmontonians.



2.4 HIGHLIGHTS FROM 2021



2.4.1. Reducing Environmental Impacts

In 2020, the City deployed its first battery electric buses into service, helping to reduce emissions while lowering operating costs. These 40 battery electric buses are one of the single largest purchases of battery electric buses in Canadian history. In 2021, funding was secured to purchase an additional 20 electric buses, bringing the total number of electric buses in our fleet to 60.

In 2021, the City of Edmonton was chosen to lead the Alberta Zero Emissions Hydrogen Transit (AZEHT) project, with funding approved through Emissions Reduction Alberta. Through this exciting project, the City of Edmonton will demonstrate a fuel cell electric bus (FCEB), which represents an exciting opportunity for the City. Adding clean-running hydrogen electric buses to our fleet supports our climate resilience goals and lowers the City's greenhouse gas (GHG) emissions. Fleet and Facility Services will play a large part in supporting this initiative into 2022.

2.4.2 Creating an Exceptional Employee Experience

Fleet and Facility Services has a well-established Culture and Engagement Committee, which includes representation from both the leadership and employee levels. The purpose of the committee is to enhance culture and engagement within the branch and align activities with the branch Culture and Engagement Action Plan. In response to the corporate Employee Check-in survey results in 2021, the Committee developed three initiatives to help further improve the employee experience within our branch.

The first initiative was an opportunity for employees to submit questions for the Fleet and Facility Services leadership team, which were answered in an "Ask Us Anything" video. The second initiative identified was a way for staff to bring forward ideas on how to improve the employee experience within the branch. The Bright Idea Generator (B.I.G.) Box was developed, which is an evolution of the branch suggestion box. The B.I.G. Box encourages employees to submit suggestions and solutions for operations, processes and engagement within the branch. The final initiative was a new process, separate from the City's Long Service Program, to acknowledge employee employment anniversaries within the branch. This process has been running since June of 2021 and has had a significant positive impact on the culture within the branch.



2.4.3 Enhancing the City's Reputation

As an act of reconciliation and respect for residential school survivors and their families, City Council voted in June 2021 to remove the reference to Grandin on transit property and civic signage. Municipal Fleet Maintenance's Fabrication Technologies team fabricated and installed replacement signs at the renamed Government Centre LRT station. In addition, murals within the LRT station that contained imagery associated with residential schools were covered and then removed in a coordinated effort between Fleet and Facility Services staff in Municipal Fleet Maintenance and Facility Maintenance Services and our partners in Edmonton Transit Service (ETS).

In the summer of 2021, the Fabrication Technologies team designed and fabricated water bottle filling stations that attach to fire hydrants. Edmontonians could use these stations to stay hydrated over the summer months. The idea to convert fire hydrants into water stations originated from Fire Services, based on a similar example in Vancouver. The water stations were part of a pilot project and were implemented when the City activated its extreme weather response to keep vulnerable people safe during hot weather. These projects have high visibility and showcase the contributions of Fleet and Facility Services in enhancing the City's reputation.



2.4.4 Supporting a Healthy City

As part of a project with Integrated Infrastructure Services (IIS), 2021 saw the completion of the City Hall fountain rehabilitation. Work to resurface City Hall Plaza and the fountain area started in 2018. Other upgrades to the fountain included the installation of new pumps, sand filters, strainers, piping and chemical treatment systems. The pumps now have variable frequency drives for precise pump speed control, meaning water is filtered more efficiently with as little energy as possible.

Other amenities that Edmontonians can enjoy in the summer months are outdoor pools and spray parks. Before spray parks open, Facility Maintenance Services teams, along with our partners in Parks and Roads Services (PARS), conduct inspections, do preparations and complete mechanical checks for all 74 spray parks across the city. These checks are completed on an annual basis to ensure the parks are functional, clean, safe and ready for operation after the winter.

Another challenge brought forward as a result of the COVID-19 pandemic and the resulting provincial health restrictions was the closing and reopening of Recreation Centre facilities and outdoor pools. Facility Maintenance Services teams successfully overcame this challenge and ensured the safety of the facilities for all Edmontonians by scheduling and completing increased cleaning and required maintenance.



2.4.5 Providing Outstanding Services to Our City Partners

In 2021, Fleet and Facility Services supported advancing technologies including Smart Fare and GPS telematics. The Smart Fare system will provide transit riders a modern, contactless fare payment solution for our transit system. Transit Fleet Maintenance within Fleet and Facility Services supports ETS and the Regional Transit System by helping to facilitate the installation of the fare payment units on all of the City's transit fleet of over 900 buses. In 2021, Municipal Fleet Maintenance completed the installation of the GPS system on 1,762 units and the GPS Telematics team began the development of Driver Safety Scorecards.

Work to develop a Fleet Asset Management Strategy also began through the Fleet Strategy and Governance project. This project will create and implement a revised, organization-wide Fleet Strategy that optimizes the fleet size, lifecycle

and composition, while establishing predictable, transparent and planned funding for the corporate fleet via the Fleet Reserve. Another key project the Municipal Fleet Maintenance team supported for our City partners was the completion of service work on the new Waste Services fleet of automated collection trucks. These specialized units required a series of modifications before they were put into collection service.

2.4.6 Continuing Our Commitment to Safety

The City's top priority is the health and safety of Edmontonians and City staff. In 2021, Fleet and Facility Services supported this objective, which has become even more important as a result of the COVID-19 pandemic, through continued enhanced cleaning and disinfecting of all City facilities and the transit fleet.

3.0 SERVICE PLAN

Across the City of Edmonton, Fleet and Facility Services provides both fleet and facility maintenance, as well as operations supports, to internal and external City of Edmonton partners. The branch is looking forward to 2022, and, in the spirit of continuous improvement, has a number of important changes to its service that will directly and positively impact its partners. The following is a summary of those service changes in each service category.

3.1 FACILITY MAINTENANCE

3.1.1 Reduce Facility Portfolio, Improve Governance and Decision Making

In 2021, Fleet and Facility Services, in conjunction with Real Estate and Integrated Infrastructure Services (IIS), began a review of the existing facility management portfolio. Through this review we will evaluate opportunities to reduce underutilized facilities and high cost-per-square-foot facilities, and dispose of underperforming assets to reduce ongoing operating costs. This review will continue into 2022, and will help to inform a strategic approach to facility management portfolio governance and asset management decision-making practices. Developing a clearly-defined facility end-of-life approach assists in managing future growth and facility disposal. Another key component of this review is to ensure maintenance coordination roles are clarified between customer branches and departments.

3.1.2 Smart Buildings and Innovative Technologies

Facility Maintenance Services leverages new smart technology for predictive maintenance. The team has a building management system that can monitor temperature, identify when systems are not performing at their full capacity and adjust these systems remotely.

Custodial Services is investigating new technologies to reduce COVID-19 transmission with respect to high touch surfaces. There are currently effective antimicrobials that can be taped or sprayed on high touch surfaces that provide up to 90 days of protection. In April 2021, the Centers for Disease Control and Prevention (CDC) indicated that there is a high risk of COVID-19 being spread through airborne transmission. Custodial Services is working with vendors that provide air purifiers or scrubbers that could be used in various locations, including fitness areas where high cardio workouts pose a greater risk. These initiatives should result in reduced labor challenges and drive efficiencies and maintaining a high standard of health and safety to patrons and City staff. This will help to restore public confidence in public transportation and public facilities.

3.1.3 Operational Efficiencies for City Buildings

The Facility Maintenance Services team is working with the Integrated Infrastructure Services (IIS) department and the Canada Infrastructure Bank (CIB) to prioritize projects and develop a business case for retrofitting buildings. If approved, deep energy retrofits may be completed. This may be enabled through financing from the CIB and an energy services company.



City Administration has received a grant from Natural Resources Canada (NRCan) which will reimburse the City up to \$400,000 or 75% of the overall project costs. This reimbursement is to be spent over two years (2021-2022) with the purpose of aligning 10 of our facilities with the ISO 50001 standard. ISO 50001 provides a framework of requirements for organizations to develop a policy for more efficient use of energy; fix targets and objectives to meet the policy; use data to better understand and make decisions about energy use; measure the results; review how well the policy works and continually improve energy management. This funding is allocated for various specific costs, including building management system upgrades to allow energy monitoring and management.

3.1.4 Targeted Service Level Reduction in Facilities

A large part of the City's facility portfolio is composed of high profile assets, with these facilities receiving the top level of service for both maintenance and custodial services. Ensuring a targeted approach to strategically align service levels with a facility's use and user expectations will help deploy labour and capital more effectively.



3.1.5 Explore the Use of Performance-Based Integrated Facility Management Contracts

An Integrated Facility Management (IFM) contract employs a single service provider to coordinate the sourcing and delivery of facility management sub-services, which typically includes maintenance and custodial. Fleet and Facility Services will seek to utilize IFM opportunities to efficiently coordinate facility management.

3.1.6 Supporting the Transformation of the Asbestos Management Program

An effective Asbestos Management Program (AMP) is a proactive, systematic program that eliminates or reduces the risk of asbestos exposure to workers, contractors and the public. In 2020, a review identified the opportunity to develop a centralized, proactive AMP for asbestos materials in City buildings. Corporate Safety and Health Services will work collaboratively with Facility Maintenance Services and Integrated Infrastructure Services to update and maintain the AMP on an ongoing basis and clarify the governance framework. Abatement projects will be managed by Facility Maintenance Services and Integrated Infrastructure Services.

2022 will see the confirmation of funding for testing, coring and sampling work for the AMP, as well as process improvements for inputting the gathered information into SAP for Facility Maintenance Services staff to utilize.



3.2 FLEET MAINTENANCE

3.2.1 Fabrication Technologies Exploration

The Fabrication Technologies shop supports the repair, maintenance and specialized fabrication of the City of Edmonton's fleet and facility assets. Resources available include welding, machining, painting, blasting and on-site portable welding services. Examples of build projects include the PARS dump/sander/plow fleet of trucks, asphalt patcher trucks, High-Level Bridge guardrail, facility maintenance rooftop access platforms and fabricated water bottle filling stations. Work is underway to increase the awareness of Fabrication Technologies as a service provider throughout the organization. In addition, 2022 will see an improved intake process to ensure departments and branches are leveraging the many services available within this group before external sourcing. Continuous improvement efforts will be placed on our quoting process and annual financial reporting to support ongoing validation of price competitiveness and ensure financial stewardship.

3.2.2 Municipal Fleet Maintenance – Operational Excellence

Field Service Model

Municipal Fleet Maintenance will evaluate a revised field service model that supports an increase of work that can be accomplished on site while increasing customer satisfaction, decreasing downtime, and promoting a better understanding of the level of investment required.

Centre of Excellence

Municipal Fleet Maintenance's goal is to continue to evaluate specific opportunities to centralize fleet and/or maintenance in order to turn labour and equipment downtime into operational uptime. The current focus will be on centralizing heavy equipment Preventative Maintenance (PM) to better utilize bays and develop specialized technician teams. This will support consistent service standards and processes and enhance the customer experience, which will result in efficient maintenance turnover and reduced downtime for customers.

PM Interval Review

Part of Municipal Fleet Maintenance's continuous process improvement journey is to identify opportunities for the Preventative Maintenance (PM) program. A comprehensive review of the current PM inspection times and forms will support standardization and consistency across the fleet to ensure they are tailored to the appropriate category of equipment and align service delivery.



3.2.3 Support CPSS in the Implementation of a Vendor-Managed Inventory Solution

A Vendor-Managed Inventory (VMI) is when a vendor owns the end-to-end process of inventory management. Corporate Procurement and Supply Services (CPSS) is leading this project, with the support of Fleet and Facility Services, to implement a VMI solution. The solution will look to optimize parts inventory at service facilities across the City for both the Municipal and Transit fleet, specifically for shop supplies and consumables such as general hardware, safety apparel and electrical components and accessories. Approximately 300 of the highest usage SKUs were piloted in the first quarter of 2021, with an additional 4,000 SKUs moved to a VMI solution by the end of 2021. Initial approximations provided by CPSS estimate this initiative could yield \$200,000 in annual cost savings on consumables purchases alone, not inclusive of any savings that result from process improvements.

3.3 OPERATIONAL SUPPORTS

3.3.1 Overseeing Corporate Fueling

The Fleet and Facility Services Fuel Office manages and oversees the ordering and delivery of fuel and lubricants to the eight major fueling sites and four ETS garages across the City. Data is collected through our fueling sites to determine vehicle usage to help structure maintenance plans.

Construction on the new Ambleside fuel site is currently underway with ground and roadwork. Fuel island and car wash construction is expected to start in the spring of 2022, with an expected completion date of summer 2022. Once construction has completed, this fuel site will have capacity for 100,000 litres of gas and 100,000 litres of diesel.



3.3.2 Managing The Corporate Driver Safety Program

The Fleet Safety section within Fleet and Facility Services manages the overall driver safety program for the City of Edmonton and the National Safety Code (NSC), as well as other legislative requirements related to the operation and maintenance of a commercial fleet of over 5,000 vehicles. Fleet Safety also monitors and evaluates approximately 7,500 drivers to ensure the safe and competent operation of City vehicles. The section is responsible for investigating collisions involving City vehicles, with the exception of Edmonton Transit Service (ETS) and DATS (Disabled Adult Transit Service) buses, and vehicles operated by Edmonton Police Service (EPS) officers.

In 2022, Fleet Safety will be working on a project with the provincial government to extend the Driver Abstract consent from 3 to 5 years. A "Driver Abstract" is the product name under which the Alberta Government releases specific information from a person's driving record. If approved, this initiative would see \$20,000 annual savings for the City by extending the life of the Driving Permit /ID

card from 3 to 5 years. Fleet Safety will also convert an NSC audit tool provided by the province into a Google format to streamline the current manual self-audit process.

Fleet Safety will also be working with our partners in Edmonton Fire Rescue Services (FRS) on their ongoing driver evaluation project. They plan to complete road test evaluations on all FRS drivers in 2022.





3.3.3 Fleet Engineering: Supporting Maintenance

Fleet Engineering provides expert analysis and advice for equipment and vehicles; engineered modifications and certifications; computer aided design services; failure analysis; oil analysis and interpretation; non-destructive testing; reliability analysis; preventative maintenance plans and safety programs. The team works with Municipal Fleet Maintenance and Transit Fleet Maintenance to continually improve processes and measures. Together, they work to increase effectiveness and efficiency, ensure a safe, reliable and compliant fleet through an effective preventative maintenance program. In 2022, Fleet Engineering will expand the scope of the Standard Repair Time Study within Municipal Fleet Maintenance to include optimization of Preventative Maintenance Intervals, including reviewing and implementing best practices pertaining to Cooling System Preventative Maintenance. Other key projects the team will be working on include analyzing and implementing the Synthetic Oils project within Municipal Fleet Maintenance and providing support for the City's Alberta Zero Emission Hydrogen Transit (AZEHT) project.

3.3.4 Training: Implementation of SuccessFactors

Fleet and Facility Services has a dedicated team that organizes and provides various training courses for employees to continuously improve their skills. The Training team is committed to providing high-quality training courses for the branch in four categories; Safety and Environmental, Driving, Software and Technical.

They provide training through different delivery methods, including online, instructor-led, and on-the-job to support employee needs. For courses that are not delivered by the branch, the team assists with the coordination, registration, and hosting of courses at Fleet and Facility Services locations. The Training team is an integral part of the success of projects in the branch, including progress on the Facility Maintenance Services Transformation, which saw the integration of employee training requirements to address the zone model needs and changes. The group evaluates business needs and helps determine, develop and deliver training requirements in alignment with process changes and employee safety requirements.

In 2021, the team focused on providing support for the implementation of SuccessFactors, part of the City's new Enterprise Resource Planning (ERP) system under the Enterprise Commons program, which will replace the current Learning Management System (LMS). The Enterprise Commons program



represents a major corporate shift in the way the City of Edmonton operates and will simplify and standardize the systems the City uses with respect to its core services. As the City moves towards implementation of the new systems in 2022, the team will support training for branch staff.

3.3.5 Analytics That Drive Operations

Facts, Analytics, and Strategic Technology (FAST) is a tool developed by Fleet and Facility Services that aids City of Edmonton employees and their stakeholders in strategic reporting capabilities as well as leveraging data for decision making.

The custom dashboards developed by Fleet and Facility Services' Analytics and Reporting team allow people to access information through a user-friendly, readable tool that takes them from the overall story to more granular, base level data. The information is timely, accurate and relevant, allowing users to identify inefficiencies and improve operational performance.

The Analytics and Reporting team has been pivotal in the creation, implementation and use of the Fleet Maintenance Services data management system, measurement and reporting tools. They have enhanced communication between internal staff and partners by developing tools to access information. They have also created increased awareness, which has led to both insight and informed action. This has enhanced the visibility of the Fleet Preventative

Maintenance program and, as a result, the fleet is almost at a 100% target for legislated preventative maintenance compliance.

A variety of dashboards have been developed to give fleet customers a broader awareness of their fleet operations. Partners can drill down into detailed information to make assessments. The system allows complex data sets to be extracted by relevant customer segments and presented in ways that are easily accessible, timely and customer-centric. With the use of the dashboards, the system has allowed client areas to make informed decisions that help improve their productivity and fiscal stewardship.

Dashboards have been developed by the Analytics and Reporting team to support facility maintenance operations, including the performance of legislative maintenance compliance, notification and work order management, cost and hour reporting and more. Finance has also been provided with a dashboard that extracts work order cost and recovery data and replaces the need for manual data pulls. These dashboards allow staff to have reliable, consistent and timely reporting. Automation has reduced errors caused by inconsistencies in data extraction and manipulation, allowing users to spend more time on analysis and decision making. In 2022, the Business Analytics and Reporting team and Facility Maintenance Services will review the provided reporting and assess the impact of the Enterprise Commons implementation.



3.3.6 Building Relationships with External Partners

Fleet and Facility Services is committed to engaging the community and building strong external partnerships. Relationship building is a key aspect of connecting different groups and providing opportunities for knowledge sharing. The branch is involved in many partnerships, including the Registered Apprenticeship Program for high school students and Women Building Futures. The branch also works actively with other municipalities and post-secondary institutions; for example, NAIT and the University of Alberta. By working together with external partners, Fleet and Facility Services enables a better life for all Edmontonians now and in the future. These partnerships can also enhance succession planning by providing opportunities for career growth and supporting diversity and inclusion in our workforce.

3.3.7 Build National Peer Groups for Facility Maintenance and Fleet Maintenance

Fleet and Facility Services meets annually with other leaders from across Canada to discuss industry best practices and innovations, share lessons learned and celebrate success stories. This is part of the branch's commitment to continuous improvement and knowledge sharing. By continuing to develop and learn from other big cities, such as Calgary, Toronto, Vancouver, and Winnipeg, the branch has established a community for alignment to industry best practices and operational excellence. In 2022, the branch will continue to work with national peer groups to respond to the impacts of the COVID-19 pandemic.

3.3.8 Creating and Reviewing Agreements with Partner Branches

Fleet and Facility Services creates and maintains agreements and frameworks with other City branches that utilize vehicles and equipment, and/or occupy City-run facilities. These agreements outline the relationship between Fleet and Facility Services and partner branches, roles and responsibilities, and set service level KPIs for Fleet Maintenance. Agreements are reviewed on a regular basis to ensure Fleet and Facility Services continues to provide required service levels to our partners and meet their service levels.

4.0 PROJECTS AND INFRASTRUCTURE FOR 2022

Each year Fleet and Facility Services takes on a range of projects that support its operations and the services it provides. Many of these projects and infrastructure improvements are not public-facing but are necessary for Fleet and Facility Services to continue to innovate and strengthen the overall level of services provided in Edmonton. The following is a summary of some of these projects.

4.1 Fleet Strategy and Governance Project

Based on the work completed by the Program and Service Review and the City's approach to reimagining work, there are gains in operational efficiency and effectiveness to be realized through the implementation of changes to the current fleet delivery model.

Endorsed by the City's Executive Leadership Team (ELT), the Fleet Strategy and Governance project will create and implement a revised organization-wide Fleet Strategy with the primary goal of reducing maintenance and purchase costs while simultaneously increasing efficiency and net benefit to the City. The project will look to optimize the fleet size, lifecycle and composition, while establishing predictable, transparent and planned funding for the corporate fleet via the Fleet Reserve.

Fleet and Facility Services provides a centralized function responsible for fleet maintenance and fleet-related services to the fleet owners across the City. Currently, fleet management is largely decentralized, with internal branches having ownership and control over their assets. Although this structure is designed to achieve efficiencies through functional specialization, it also highlights competing priorities across the asset lifecycle. Fleet and Facility Services will work with City branches and partners to better understand their programs and services in order to make recommendations to deliver operational needs.

To ensure alignment and integration, the branch is focused on clearly defining the most critical lifecycle management decisions, the decision-making process and decision-making authority (i.e. roles and responsibilities at various levels of management). These incremental changes to the procurement process can lead to more timely procurement decisions, a reduction of out-of-lifecycle fleet and cost-avoidance of unbudgeted maintenance costs. Decisions that benefit from a clearer allocation of accountability include replacing or keeping aging assets in service, having spare units in the fleet, renting or buying assets and preparing growth capital requests.

This project aligns with ConnectEdmonton and the City Plan by linking the optimization of the fleet to the City's GHG emission targets, supporting the mobility network plan, increasing the reliability of the system, improving lifecycle management and committing to fiscal responsibility in both capital and operating budgets.

4.2 Active Air and Surface Purification Technology Installation on Transit Fleet

This initiative will explore the potential installation of Active Air and Surface Purification technology on the ETS fleet, including Dedicated Accessible Transit Service (DATS). This technology could include UV PHI Air Purification or Proactive Air and Surface Purification ("PASP") to safely sanitize both the air and surfaces in the Edmonton Transit Service (ETS)



bus fleet. Independent third party test results have shown overall bacteria count reductions of 99% or more, demonstrating the technology's ability to deactivate the SARS-CoV-2 virus (which causes COVID-19), H1N1, Avian Flu, MRSA, E.coli, bacteria, mold and carcinogenic viruses.

Initial studies have proven that this technology helps to manage and prevent COVID-19 transmission and improve overall air quality. There have been recent recommendations from the Edmonton Transit Service Advisory Board (ETSAB) at the Urban Planning Committee (UPC) to improve the air circulation in Edmonton's transit service. Transmission and spread of COVID can happen quickly in crowded spaces, especially with variant strains.

The effectiveness of this technology in reducing the risk of COVID-19 transmission will be validated through an Request For Information (RFI) process. Early trials in the Capital District Transportation Authority (based in Albany, New York) are showing extremely positive results in combating the COVID-19 virus. That group has conducted scientific research showing the technology's effectiveness on their bus fleet, enabling a significant reduction in the frequency of their electrostatic spraying requirements.



This initiative excludes LRT implementation, however future deployment within LRT cars may be considered, dependent on outcomes.

4.3 Regional/Smart Fare Electronic Payment System Installation

The Smart Fare system, branded as Arc, is being rolled out in phases in 2021 and 2022. The initial launch for UPass riders occurred in September 2021, and the project is currently working towards the launch of the adult pay-as-you-go product. The remaining fare categories and fare programs will be launched throughout 2022. The program has the participation of all municipal transit operators in the Capital Region: St. Albert, Strathcona County, Leduc, Spruce Grove, Beaumont and Fort Saskatchewan. Through the implementation of Arc, all transit riders in the region will have access to a modern, contactless fare payment solution. Transit Fleet Maintenance within Fleet and Facility Services supports ETS and the Regional Transit System by coordinating and helping to facilitate the installation of the fare payment units on all of the City's transit fleet, which includes over 900 buses.



4.4 Lowering The Average Age of The Bus Fleet

In collaboration with Edmonton Transit Service, Fleet and Facility Services is working to reduce the average age of the bus fleet to ensure greater reliability, reduce maintenance costs and improve the ridership experience.

Our asset management approach uses life-cycle cost analysis and requires:

- » Using an Asset Management Strategy that preserves the asset and minimizes the total life-cycle cost of implementation, operation and renewal while providing continuous, safe and reliable services
- » An evaluation, maintenance/replacement and reinvestment system
- » A link between the initial cost outlay of the bus and its ongoing funding requirement in the City budget, which will ensure that critical maintenance and repair schedules and activities are adhered to and are not subject to compromise due to insufficient funding levels
- » A 'maintenance-priority' policy, which means that maintenance, operations and incremental improvements are given priority
- » Assessing and utilizing GHG reducing technology

4.5 Service Implementation of Electric Bus Fleet

Fleet and Facility Services collaborated with ETS on the design, procurement and deployment of electric buses in support of the City of Edmonton's Greenhouse Gas Management Plan. This plan identifies significant opportunities to reduce carbon emissions and maximize returns on the financial investment through utility savings. ETS added 40 electric buses to the fleet in 2020, and will continue to plan for the growth of the electric bus program.

Since the deployment of electric buses into regular service, the City has proven that the electric buses are a viable replacement for the diesel buses. They can be used on the majority of our current routes, even on the coldest days in our winter city. In 2022, an additional 20 electric buses will be added to the fleet, for a total of 60. With the addition of these 20 electric buses, the branch will continue to contribute to the City's Greenhouse Gas Management Plan to mitigate climate change. This project also includes the daily operations of full service bookout and continued training and service implementation.

4.6 Alberta Zero Emission Hydrogen Project Support

Alberta is among the world's lowest cost producers of low/no carbon hydrogen. Edmonton metro can be positioned to accelerate a new provincial hydrogen economy, combining supply from the Alberta Industrial Heartland and demand generated across the greater Edmonton region.







A Hydrogen Node approach has already been established, created in conjunction with six national industry associations and three levels of government. This leverages municipal and private sector opportunities and expertise to create demand and supply at scale. This approach will help meet future needs and create an economically sustainable hydrogen fuel economy. To create a new hydrogen value chain that includes production, distribution and use, the concurrent lack of hydrogen demand and supply must be addressed to capitalize on its environmental and economic potential. This initiative supports the City Plan by providing Edmontonians an improved public transit system and high-quality active transport networks that will reduce greenhouse gas emissions.

The City of Edmonton and Fleet and Facility Services are engaged as the project leads in the Alberta Zero Emissions Hydrogen Transit (AZEHT) initiative, with \$4.6 million in secured funding from Emissions Reduction Alberta. The project involves the demonstration of two fuel cell electric buses (FCEBs) in real world conditions in Alberta and compares their 'fit for purpose' with other low carbon alternatives. The buses will be demonstrated by Edmonton Transit Service and Strathcona County Transit, two operators serving the Edmonton region, for 23 months in regular revenue service.

Operational data collection and tracking will be conducted and used to create a total cost of ownership (TCO) model and GHG emission model specific to operation in Alberta. The project will see the development of a comprehensive transition plan for each agency to outline a roadmap to full zero-emission operations.

Fleet and Facility Services also supports the City Plan by pursuing emissions-neutral and net-positive infrastructure, buildings and neighbourhoods such as the Blatchford neighbourhood. The branch continues to explore, research and test green technologies that are safe, reliable and sustainable for the organization's municipal fleet, transit fleet and buildings.

Hydrogen Properties: A Comparison

	HYDROGEN	NATURAL GAS	GASOLINE
 Colour	No	No	Yes
 Toxicity	None	Some	High
 Odor	Odorless	Mercaptan	Yes
 Buoyancy Relative to Air	14x lighter	2x lighter	3.75x heavier
 Energy By Weight	2.8x > Gasoline	~1.2x > Gasoline	43MJ/kg
 Energy By Volume	4x < Gasoline	1.5x < Gasoline	120 MJ/gallon



4.7 Capital Waste Project Support

In 2021, the City of Edmonton transitioned to four stream, cart-based waste collection, with separate collection of food scraps and seasonal yard waste. Working together with Waste Services, Municipal Fleet Maintenance will continue to support the maintenance of the specialized Waste Services fleet units that are required to collect the carts. In 2022, the team will work to develop comprehensive maintenance plans for these new units.

An upcoming component of the maintenance team's support of the Capital Waste Project is the installation of RFID technology onto waste collection units. This new technology is not currently on the existing fleet. RFID scanners on units will scan barcodes on the waste carts to register a variety of data including when and where the waste is picked up. Municipal Fleet Maintenance will install this technology on

the units, along with cameras that will be used to show street views of where the bin is located. Both technologies will help improve the waste collection process while providing better customer service for Edmontonians. The use of this type of technology has become an increasing trend in the industry.

Additionally, Custodial Services supports Waste Management on the four stream waste collection program at various City facilities as part of the 25-year Waste Strategy. This initiative enhances operational efficiency and supports environmental initiatives.



4.8 Supporting The Blatchford District Energy Sharing System

District Energy Sharing Systems are flexible systems where excess ambient temperature energy is captured then distributed from a central location to multiple buildings in a neighbourhood. The system consists of an Energy Centre One where heat pumps efficiently transfer thermal energy between the geexchange field and a series of underground piping systems. These piping systems distribute excess energy to a variety of buildings, where it can be used for heating and cooling year-round. This efficient system replaces conventional hot water tanks and air conditioners.

The District Energy Sharing System will be constructed in stages to match the pace of development in the neighbourhood. It will also be able to incorporate the latest innovations in renewable energy over the next 20 years. As Blatchford continues to grow, additional energy centres will be built, including the Sewer Heat Exchange Centre which will tie into the District Energy Sharing System. The first phase

of the District Energy Sharing System is already providing services to multiple stages of residential development.

Above Facility Maintenance Services' typical day-to-day maintenance, the section is working closely with utility engineers to observe system operation setpoints. This involves remotely monitoring the system conditions through the Building Automation System (BAS) to ensure ground loop temperatures appear as expected according to outside temperatures and that the heat pumps are running at maximum efficiency. Key performance metrics are analyzed monthly for energy efficiency (kwh/kwh) and GHG intensity (tCO₂/MWh).

4.9 Led The Ammonia and Hazardous Gas Project

The Ammonia and Hazardous Gas project will provide a safe working environment in City ammonia and other ice plant rooms. The goal is to implement a standard set program where one does not currently exist in the local industry. The scope of the project is broad and intended to encompass all aspects of City ammonia ice plants by addressing safe



work operating procedures, maintenance plans, rescue plans, PPE selection and procurement and other elements. The project will be compliant with all applicable codes and standards. Stakeholders from various internal and external groups were consulted and are participating in the project including Corporate Employee Health and Wellness, Emergency Response, Community Recreation Facilities, Risk Management and others.

The ammonia segment of this project is nearing completion and implementation. The subsequent and related project, Halocarbon – Refrigeration System Maintenance Management, has begun. Halocarbon is also known as Freon, and is one of the primary chlorofluorocarbons (CFCs) used in refrigeration systems. In 2022, the branch will continue to work on the final details of this project. The implementation of a safety-based Ammonia Systems Maintenance Management Program will exceed legislated requirements and achieve best-in-class status.

4.10 Enterprise Commons

Enterprise Commons, our new cloud Enterprise Resource Planning (ERP) solution, will be deployed across the City of Edmonton in 2022 and is undertaking three broad areas of work in order to:

- » Simplify how the City works with respect to its core services including finance, human resources, and supply chain management;
- » Standardize systems and align processes;
- » Adopt industry leading practices for all human resource, finance, and inventory and warehouse management functions as well as enterprise asset management and workflow practices; and
- » Focus on solutions with minimal customization to reduce the costs of upgrading, maintaining, and supporting enterprise systems.

Fleet and Facility Services is continuing to ready itself to transition to Enterprise Commons, with the first impact to staff being the implementation of the SAP 4HANA system for preventative maintenance. Assetworks M5 will still be utilized for Fleet Maintenance Services.



4.11 Capital Projects

Vehicle and Equipment Replacement

This composite project includes the total replacement cost of City department fleets, which are within the fleet replacement fund. All proposed units have reached their operational lifecycle. Based on an internal lifecycle review, there are approximately 974 units scheduled for replacement from 2019 to 2022. The replacement of these units enables continued reliable service delivery. This capital project will tie into the Fleet Strategy and Governance project, which will optimize the fleet lifecycle, size and composition.

Fuel Site & Oil Tank Replacements

This capital project is complete and saw the replacement of aging fuel systems (tanks and associated equipment) in order to comply with environmental and fire code requirements. These sites have surpassed the useful life average of 25 years. Their replacement is a preventative measure to ensure minimal environmental impacts or site shut-downs due to leaks, which enables the fuel sites to remain operational and available for our partners. In 2021, the last two underground storage tanks (USTs) at Ferrier Transit Facility were replaced. Monitoring and inspection procedures for building generator USTs will be reviewed and historical soil contamination from certain USTs will be risk managed in accordance with Alberta Environment and Parks.

Tools & Shop Equipment Program

This program is part of the branch's capital projects to replace worn, obsolete or out-of-date tools and equipment for the support, maintenance and repair of the City of Edmonton's vehicle fleet. Shop tools and equipment are managed to ensure optimum economic life of the fleet is achieved. The availability of operational tools and equipment is critical in fulfilling fleet repair, maintenance and body work.



GPS Telematics Initiative

This project implements a state of the art, enterprise wide GPS telematics solution. GPS and telematics have become fleet necessities, providing tools to improve employee accountability and productivity while decreasing fleet costs. Over the years, various branches have adopted different telematics solutions, with up to 12 different types of telematics solutions operating within our IT landscape. A state of the art corporate GPS solution is required in order to enhance driver safety, service levels, employee productivity, decision making and overall citizen experience.

Improved GPS data will help our partners understand asset utilization through better business reporting, which will be an important part of supporting the Fleet Strategy and Governance project.

Municipal Fleet Maintenance Services and Fleet Safety support this initiative through the installation of the systems in the City's municipal fleet. In 2022, the branch will work to finalize and reintroduce Driver Safety Cards, which will be designed to improve driver safety. Following the reintroduction of Driver Safety Cards, the branch will also be turning

on in-cab driver alerts to notify drivers of specific exception events, such as speeding and harsh braking. Continued work to develop telematics data analysis and reporting will help business areas make decisions.

This aligns with the Vision Zero strategy for improving the safety of employees and citizens through the City's Driver Safety Program. Beyond showing vehicle positioning, the implementation of this advanced technology will provide driver behaviour and telematics information for operational decisions and planning. It will also help improve safety, productivity and fuel management across the fleet.

2022 Office of the City Auditor Work Plan Support

The City Auditor is appointed by City Council to provide internal audit services to the City of Edmonton. Each year, the City Auditor outlines a work plan that details areas where they are focusing on in order to review and improve City services. Fleet and Facility Services will be working with the City Auditor to support the Capital Asset Management audit, which focuses on how the City of Edmonton assesses, plans, budgets and reports for capital maintenance and replacement needs.



4.12 Safety

2022 Certificate of Recognition (COR) Audit

The COR audit is a systematic evaluation of the organization's health and safety program for the assurance of meeting a minimum standard. In 2022, the City of Edmonton will undergo an external audit of its occupational health and safety system in order to maintain its COR. This audit is conducted by an external third-party auditing team, and recommendations specific to the Fleet and Facility Services branch can be expected in the summer of 2022.

Upon receiving the audit recommendations, the Workforce Safety and Employee Health (WSEH) branch will work with Fleet and Facility Services to transition the recommendations into branch action items for the completion of Fleet and Facility Services safety program improvements in 2023.

ISNetwork: Ensuring the City's Contractors are Safe

The City of Edmonton utilizes contractors to carry out significant amounts of work to support the services provided to citizens. In order to ensure contractors work in compliance with the required legislation and are competent in doing that work in a safe and healthy manner, a system has been procured to prequalify contractors based on the evaluation of their safety program. ISNetwork, the prequalification system, will be rolled out to City Operations, including Fleet and Facility Services, for all high- and medium-risk contracts by the end of 2022. The implementation and adoption of the new prequalification system for contractors will ensure that the contractors hired by the City of Edmonton, and within Fleet and Facility Services, comply with Occupational Health and Safety Standards.

"Occupational Health and Safety and the environment are integral components of Fleet and Facility Services operations."



Safeguarding

In 2019, the City pled guilty to section 310(2)(h) of the OHS Code for a failure to provide safeguards if a worker may come into contact with a hazard. This was the outcome of an incident where a drainage tunnel foreman was fatally injured while working for the City of Edmonton. A safeguarding project was started to prevent subsequent incidents and focuses on the identification, evaluation and correction of any potential safeguarding gaps in the City's safety program. The assessment portion of the project has been completed and a new safeguarding standard will be developed. WSEH will be supporting Fleet and Facility Services in the implementation of the safeguarding standard into branch business processes for managing and reducing equipment and machinery safeguarding risks and liabilities.

Hazardous Work Locations

The WSEH branch is working to address organizational safety program gaps through the revision and creation of new safety standards such as Confined Space Entry, Ground Disturbance and Safe Work at Heights. WSEH will be supporting Fleet and Facility Services in the promotion and implementation of at least two of these safety standards within the branch for injury and risk reduction related to applicable work.

Ozone Safe Work Review

Ozone is generated and used for water treatment at the Edmonton Valley Zoo, which contributes to a healthy and clean environment for the aquatic animals. Ozone can present a number of health hazards if not controlled properly and depending on the concentration, exposure to ozone can present a health risk. A project is currently underway to improve ozone engineering controls at the Edmonton Valley Zoo, which could include upgrading the ozone gas detection and HVAC systems. Facility Maintenance Services is working with the Edmonton Valley Zoo and WSEH to build an Ozone Safety Management Program. The program will support consistent ozone-safe work practices and procedures at the Edmonton Valley Zoo site.

In 2022, the ozone project will transition from an operating project to a capital project to revitalize and improve three ozone facilities: the Otter, Trout and Polar buildings. It will work towards resolving minimum code requirements and advancing them above industry standards to further direct daily operations toward better health and safety procedures. Modifications to detect and effectively mitigate excess ozone are imperative to hazard management for both the employees and the animals.



4.13 Environmental Management and Programs

The City's Environmental Management System (Enviso) is designed to protect the environment, meet compliance obligations and continually improve the City's environmental performance. Enviso resources support Fleet and Facility Services to ensure the system is implemented within its operations, and helps to align corporate environmental policies and priorities.

Sustainable Building Policy and BOMA Best

The Sustainable Building Policy (C532) sets ambitious standards for the City to lead by example in sustainable building practices for City-owned and leased buildings, including implementing BOMA Best for all buildings greater than 1,000 square metres. BOMA Best is an environmental certification program that focuses on improving the operation and maintenance of a building in 10 key areas: energy, water, air quality, comfort, health and wellness, waste, custodial, purchasing, site and stakeholder engagement. The plan for 2021 is to certify up to 15 buildings, including eight fleet/ETS maintenance facilities.

ISO 14001 Audits

The City's Environmental Management System is ISO 14001 certified. This involves having a third-party auditor perform an independent validation that the system conforms to the 14001 standard. In addition to annual internal compliance audits, a surveillance audit is planned for 2022.

Risk Management of Underground Storage Tanks

Fleet and Facility Services maintains and monitors underground storage tanks (USTs) at City operated fuel sites and for building generators. A release of fuel can cause significant environmental damage, financial liability, and public health and safety risk. Throughout 2022, monitoring and inspection procedures for USTs for building generators will be reviewed and historical soil contamination from certain USTs will be risk managed in accordance with Alberta Environment and Parks.



GHG Management Plan for City Operations

The Greenhouse Gas (GHG) Management Plan for City Operations 2019–2030, approved by City Council, outlines the strategy for City operations to achieve a 50 per cent reduction in GHG emissions by 2030 (from 2005 levels). The plan works in conjunction with the Energy Transition Strategy to lead by example. The GHG Management Plan for City Operations will be updated in 2021 to align with international targets to limit global temperature increases to less than 1.5 °C. Fleet and Facility Services will be an important stakeholder in updating the plans. Fleet and Facility Services has supported the GHG Management Plan through the roll-out of electric buses, and will continue to help implement strategies such as completing LED lighting upgrades and evaluating the feasibility of hydrogen buses.

4.14 City of Edmonton Training

The City of Edmonton provides training and educational opportunities to employees that support business operations and new city-wide initiatives. In 2022, there are several learning programs for employees:

- » Enterprise Commons – on-boarding City of Edmonton employees into the new cloud-based Enterprise Resource Planning solution
- » Enabling Conversations Series – a specific training for supervisors to support performance tools that are embedded within Enterprise Commons
- » Anti-racism and GBA+ training – a city-wide training to support the City of Edmonton's work around anti-racism and GBA+, and how to integrate these frameworks into city operations

4.15 Engagement Action Plan Implementation

In 2022, Fleet and Facility Services will continue implementing a revised employee engagement plan with the help of the branch Culture and Engagement Committee. Additionally, Fleet and Facility Services will continue evaluating action items and their impact on overall employee engagement based on the biennial 2020 Employee Experience survey and results from the 2021 Employee Check-in surveys. These snapshots in time allow the branch to implement feedback from frontline employees to further employee engagement and will help to inform progress and future priorities for the branch.

Employee Experience

Together, the people who work for the City imagine, build, operate and animate to make life better for nearly one million Edmontonians. The employee experience reflects the diversity of our workforce and is impacted by many different factors. It is more than an engagement survey, a respectful workplace directive, leadership training, or safety programs. The employee experience is about listening, learning and doing our part in equipping each other to do our best work. Check-in Surveys are completed three times per year, with a larger Employee Experience Survey completed every two years. The last Employee Experience survey was completed in August 2020.

GLINT PULSE SURVEY Constant Questions in each survey	MARCH 2021	JUNE 2021	OCTOBER 2021
How happy are you working at the City of Edmonton?	66	66	63
I would recommend the City of Edmonton as a great place to work	66	64	60
How are you doing?	63	61	55
PARTICIPATION NUMBER	595	548	581
PARTICIPATION %	53	49	52



5.0 PERFORMANCE MEASURES

The City of Edmonton continuously monitors and routinely reports on its performance through the Enterprise Performance Management (EPM) system. The EPM system aligns performance measurement to strategic goals and service standards to:

- » Enable a better life for Edmontonians by being accountable for results
- » Provide better service by understanding how we are doing and where we can improve
- » Make better decisions by managing our performance with frequent and more accurate data



To provide accountability to Edmontonians, Fleet and Facility Services has identified the following performance measures to demonstrate that goals are being achieved, targets are being met and citizens are getting good value for money. Additionally, these performance measures enable employees to see the positive impact that their work has on the goals and on the people they serve every day.








5.1 CUSTOMER PERFORMANCE MEASURES

MEASURE	MEASURE DESCRIPTION AND NARRATIVE	TRENDING STATUS
Municipal – Legislated PM Compliance	This measure identifies internal fleet that are compliant with legal preventive maintenance requirements. Preventive maintenance measures ensure the safety of the public and the City staff, while operating City-owned fleet.	
Municipal – Scheduled Preventive Maintenance	This measures adherence to the non-legislated preventive maintenance schedule. Proper preventive maintenance is expected to reduce unplanned breakdowns, improving reliability and overall cost containment.	
Municipal – Estimate vs. Actual Hours	This is an industry standard measure which compares targeted repair times to actual repair times. Reliable repair costs help our customers better manage their fleet-related budgets.	
Municipal – Adjusted Availability	This measure is an indicator of the impact of fleet services on the internal customers (unit maintenance timeliness and unit reliability). High availability indicates the amount of time the unit is available for use by the customer over the course of a year. Fleet availability is critical for our customers to meet their obligations.	 Light Duty
		 Heavy Duty
Transit – Legislated PM Compliance	This measure identifies internal fleet that are compliant with legal preventive maintenance requirements. Preventive maintenance measures ensure the safety of the public and the City staff, while operating City-owned fleet.	
Transit – Scheduled Preventive Maintenance	This measures adherence to the non-legislated preventive maintenance schedule. Proper preventive maintenance is expected to reduce unplanned breakdowns, improving reliability and overall cost containment.	
Transit – Estimate vs. Actual Hours	This is an industry standard measure which compares targeted repair times to actual repair times. Reliable repair costs help our customers better manage their fleet-related budgets.	
Transit – Adjusted Availability (Bookout)	This measure is an indicator of the impact of fleet services on the internal customers (unit maintenance timeliness and unit reliability). High availability indicates the amount of time the unit is available for use by the customer over the course of a year. Fleet availability is critical for our customers to meet their obligations.	

5.1 CUSTOMER PERFORMANCE MEASURES CONTINUED

MEASURE	MEASURE DESCRIPTION AND NARRATIVE	TRENDING STATUS
Legislated PM Compliance For Flagship Buildings	The measure identifies City-owned facilities that are compliant with legal preventive maintenance requirements. Preventive maintenance measures ensure the safety of the public and the City staff while in City facilities.	
Scheduled Preventive Maintenance For Flagship Buildings	This measures adherence to the non-legislated preventive maintenance schedule. Proper preventive maintenance is expected to reduce unplanned breakdowns, improving reliability and overall cost containment.	

5.2 OPERATIONAL PERFORMANCE MEASURES

MEASURE	MEASURE DESCRIPTION AND NARRATIVE	TRENDING STATUS
Municipal – Maintenance Cost Per KM	This measure identifies the cost of ownership of the fleet, using the maintenance costs and the usage, over a set period of time. This information helps the business to budget for their units and it can also be an early indicator of poor fleet performance.	 Light Duty <hr style="border-top: 1px dashed #ccc;"/>  Heavy Duty
Transit – Maintenance Cost Per KM	This measure identifies the cost of ownership of the fleet, using the maintenance costs and the usage, over a set period of time. This information helps the business to budget for their units and it can also be an early indicator of poor fleet performance.	
Maintenance Cost Per sq Foot on Flagship Buildings	This measure identifies the cost of ownership of City-owned flagship buildings. These buildings account for the majority of maintenance expenditures and represent key buildings (high traffic and/or political sensitivity).	
Planned vs Unplanned Work	This measures the number of hours conducted on planned work vs. breakdown work. This measure informs the building planners relative to the effectiveness of the maintenance plans; if the plans are set up properly and maintained as scheduled it should result in fewer hours of breakdown work.	

APPENDIX A: FINANCIAL SUMMARY OF FLEET AND FACILITY SERVICES

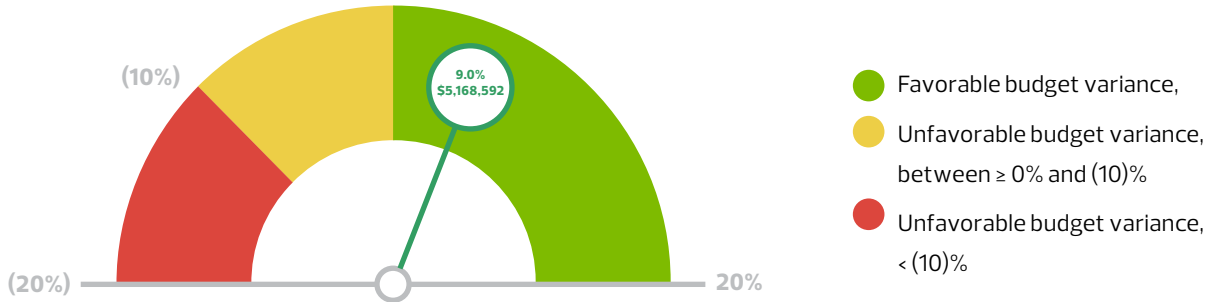
2022 BUDGET (000S)	
Expenses	\$ 285,398,998
Revenue and Recoveries	\$ (233,113,090)
Net Position	\$ 52,285,908

BUDGET SUMMARY

SERVICES	EXPENSES	RECOVERY	REVENUE	NET
Fleet Maintenance (Lead)	\$ 197,824,658	\$ (200,504,954)	\$ (4,193,779)	\$ (6,874,075)
Facility Maintenance (Lead)	\$ 87,574,340	\$ (27,795,379)	\$ (618,978)	\$ 59,159,983
Total (000s)	\$ 285,398,998	\$ (228,300,333)	\$ (4,812,757)	\$ 52,285,908

YEAR END FINANCIAL

Net Position Budget Variance



(000S)	BUDGET	ACTUAL	YEAR-END VARIANCE
Expenses	\$ 299,379,131	\$ 278,385,079	\$ 20,994,052
Revenue and Recoveries	\$ (241,417,022)	\$ (225,591,562)	\$ (15,825,460)
NET POSITION	\$ 57,962,109	\$ 52,793,517	\$ 5,168,592



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