

Service Business Plan



Service Name Facilities and Buildings - Design and Construction

Service Lead Name Ken Pirhonen

Service Lead Title Manager of Facility Assets

Service Description

An internal service to provide design, construction and project management services for City-owned facilities and buildings.

Strategic Alignment with Vision to Focus Plan

Supporting sustainable infrastructure and a resilient environment

Service Goals

To deliver the capital program in a timely and efficient manner that allows the City to ensure steps are taken in order to protect the environment.

Reduce the impact on the residents and facility users from construction closures.

Ensuring facility assets are renewed and replaced while achieving the assets full lifespan.

Current State

Customers & Their Expectations

This service is delivered to:

Other City Services who operate facilities and buildings who expect:

- the design, appearance, comfort, condition, performance and reliability of facilities and buildings are appropriate for site operational needs.
- completed projects to maintain or improve facilities and buildings
- projects that are aligned with budgets, timing and scope requirements.

Existing Service Delivery

Partner with Asset Management Service, Environment & Energy and other City services that operate facilities and buildings to manage the design, performance improvement and construction of sites and their systems.

Partner with other City services that operate facilities and buildings to establish and oversee preventive maintenance programs to optimize reliability and life cycles of facilities and buildings and their systems.

Establish maintenance service contracts and provide ongoing contract oversight for needs that operating City services do not perform.

Existing Customer Engagement Tools / Methods	Engage customers in a project charter definition, design stages, tender evaluations, project progress meetings, internal meetings, e-mails, phone discussions, construction progress site meetings to refine and finalize scope, budget and timing of projects. At project end, anticipate completion of customer satisfaction survey.
Is this Service Provincially Legislated?	Yes Applicable standards come from Ontario Building Code, Technical Standards and Safety Authority, Conservation Authorities, Ministry of Health, Ministry of the Environment, Region of Halton, Environmental Protection Act, Burlington Hydro, Gas Code, Niagara Escarpment Commission, Operating Engineers Act, Ontario Electrical Code, Municipal By-laws, Leadership in Energy Efficiency Design, Occupational Health and Safety Act, Accessibility for Ontarians with Disabilities Act, Northern Pipeline Act, Ontario Professional Engineers Act, Ontario Architects Act, Ontario Association of Landscape Architects, Green Procurement Policy, Electrical Safety Authority, Ontario Land Surveyors and others
For this Service are there Approved Service Standards?	No

Programs

Recent Continuous Improvement Initiatives

Digitizing drawings has been completed for major buildings. Surveys for smaller buildings having no drawings continue and will create as built digitized drawings. Organizing and filing digitizing data from new projects is ongoing and continues to improve available information for Facilities and Buildings Design and Construction staff and our customers.

Creating a Project Charter is becoming standard practice for all but small projects. Project Charters are now being developed for projects listed in the 2020 Capital Budget

Consultant/contractor performance evaluations at the end of projects is standard practice for all projects. Evaluations result in reduced current and future risk, improved consultant/contractor performance and easier to manage projects.

Construction end-of-project testing, commissioning, acceptance and turnover continues to improve the ability of operations staff to understand, operate and maintain after takeover.

The Project Work Plan spreadsheet has been expanded for planning 2020 staff project management time requirements and prioritization. It creates weekly time commitments and plans staff capacity and availability for project assignments. It highlights availability and difficult periods that will require adjustments or intervention to keep projects on track. Regular meetings with staff, stakeholders and departments involved are scheduled to update the Work Plan.

Environmental Considerations

Facilities and Buildings - Design and Construction works to reduce environmental impacts in the following ways:

Continue to use technology in meeting rooms for presentations rather than paper handouts.

Use of dual monitors for reviewing documentation and drawings rather than printing

Continue to recycle within the office and with construction projects.

Continue to follow the Green Procurement By-Law.

Design projects with green and sustainable building products.

Establish building system standards for renewal that include carbon reduction strategies.

Design facility parking lots and roof drainage to control the flow of storm water to the storm drainage system.

Emerging Opportunities and Anticipated Risks

Emerging Opportunities

List of capable consultants and contractors by skills has been expanded and helps improve the turn around time of smaller projects and time to completion. It helps reduce the 'hidden' cost of extra staff project management time and delays.

Changes to the procurement by-law have continued to save time and expense

The preventive maintenance program scope has progressively been increased, standardized, coordinated and reported. This is designed to extend building equipment life cycles, improve reliability of buildings as well as optimize operating and long-term capital renewal costs.. Demand maintenance (small repairs) coordination is now in place and being adopted. A demand work request system is available to facility staff to document, coordinate, prioritize and address issues which is helpful for future reference and estimating end of life of assets and capital budget development.

Anticipated Risks

Large projects, such as Skyway Arena, Staff Accommodation Study, Sherwood Park improvement, City Hall HVAC, Mountainside Pool Tank/Slide continue to require significant staff resources and so that some smaller to medium size renewal projects may be difficult to complete. Larger projects had been expected to decline and free up capacity to manage the expected increase in smaller renewal projects.

- Unanticipated changes in program user needs or in use of facilities and buildings may require more projects and unexpected re-purposing of resources.
- The average age of facilities and building continues to increase. This will result in more capital renewal projects needed to maintain their condition. The increase in projects may require more staff resources and capital renewal funding.
- Buildings and their systems are unlikely to meet estimated life cycles and reliability until the preventive maintenance program has been functioning for a few years. This could continue to bring forward some capital renewal requirements and require more staff resources to complete premature replacements.

- Low priority facility renewal backlog items will increase due to the need to prioritize carbon reduction strategies and maintain funding guidelines.
- Climate change may reduce estimated life cycles and bring forward capital renewal requirements and staff resources needed to complete replacement projects.
- Climate change may require major repairs due to extreme weather and require other unplanned retrofits to sites and buildings to improve drainage and maintain integrity of buildings.
- Retirements of experienced project management staff will make 2020 a significant transition year. Capacity to deliver projects may be affected since new staff will not likely be as productive until they have more experience. Capturing and recording the knowledge of retiring staff is underway.

Enterprise Risk Considerations	Labour Marketing and Workforce - Recruitment, Retention, Attraction, Skills Climate Change - Increasing frequency of severe weather events Technology - Speed of Change Capacity and Volume of Work - CM and BLT Work Plans, Projects, Process Change, Strategic Priorities
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Service Initiatives	Target Completion
Continue to work collaboratively with other business services leads to deliver facility projects that meet the needs of the customer and stakeholders.	Dec 2020
Working with operations partners, improve the use of demand maintenance and maintenance requests in City-operated facilities and buildings.	Dec 2020
The facility and building renewal projects have improved the Facility Condition Index (FCI) for 2019 to 0.102. As capital renewal work continues in 2020 the FCI is expected to remain stable and then improve slightly in subsequent years as long as capital renewal funding continues at required amounts	Dec 2020
Implement increased scope and amount of service contracts to support staff-delivered maintenance and provide more standardized service levels	Dec 2020
Continue to design facilities with carbon reduction strategies aswell as identifying the total cost of ownership prior to construction.	Dec 2020

MEASURING SUCCESS

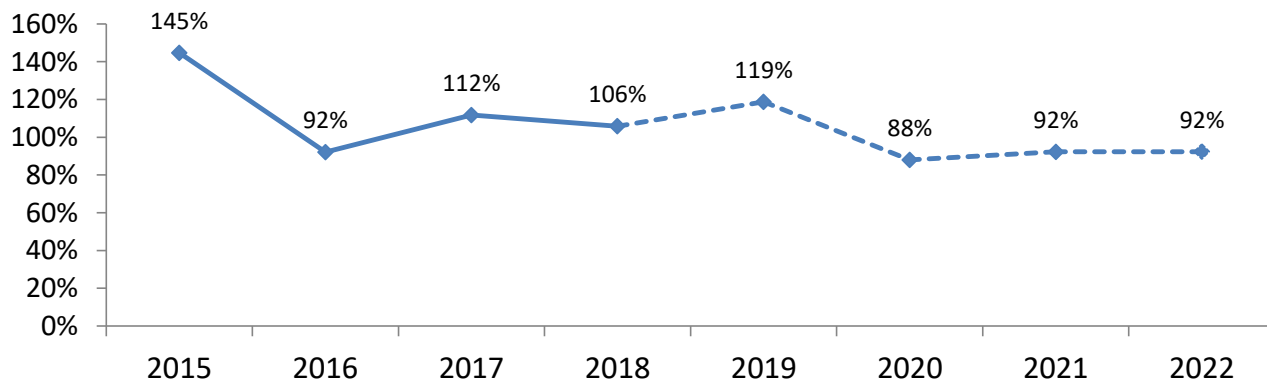
How much did we do?

Performance Measurement	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Replacement value of City owned/operated facilities (excludes new sites under construction) (\$ millions)	\$331	\$553	\$553	\$560	\$577	\$594	\$612	\$613
Number of major projects	7	9	8	10	5	5	5	6
Value of major projects (\$ millions)	\$19.0	\$19.9	\$18.2	\$21.4	\$18.9	\$14.0	\$12.0	\$13.0
Number of minor renewal projects managed	93	104	134	111	120	120	120	121
Value of minor renewal projects managed (\$ millions)	\$3.6	\$3.7	\$3.4	\$2.6	\$3.1	\$4.2	\$4.4	\$5.4
Number of service contracts managed	7	8	8	10	11	11	11	11
Total site applications of service contracts	173	273	320	395	436	436	436	436
Value of service contracts managed (\$ millions)	\$0.63	\$0.78	\$0.81	\$0.78	\$0.85	\$0.90	\$0.92	\$1.92
Value of approved capital renewal (\$ millions)	\$3.80	\$5.10	\$3.40	\$5.86	\$4.80	\$5.00	\$5.20	\$5.20
Value of capital renewal spent (\$ millions)	\$5.50	\$4.70	\$3.80	\$6.20	\$5.70	\$4.40	\$4.80	\$4.80

How well did we do it?

Performance Measurement	Capital Renewal Spending- % of Approval Spent
Story behind the data	Capital renewal funding for larger projects carries over budget years and causes variation in % of approval spent

Capital Renewal Spending- % of Approval Spent



Is anyone better off?

Performance Measurement	Rate facilities and buildings condition based on the industry standard Facility Condition Index (FCI).
Story behind the data	Capital renewal funding is helping stabilize and improving the condition of facilities
Where do we want to go?	Continue to hold the FCI at or below 0.1

