

TO: CHAIR AND MEMBERS
FINANCIAL MANAGEMENT COMMITTEE

DATE: 2017 November 22

FROM: CHIEF INFORMATION OFFICER

FILE: 1900-01

SUBJECT: 2018 INFORMATION TECHNOLOGY CAPITAL PROGRAM

PURPOSE: To request Council approval of a funding bylaw for the 2018 Information Technology Capital Program.

RECOMMENDATIONS:

1. **THAT** Financial Management Committee recommend Council approve the capital expenditure of \$4,591,084 for the 2018 Information Technology program as outlined in this report.
2. **THAT** Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserves Bylaw in the amount of \$4,805,620 (inclusive of GST of \$214,536) to finance the program.

REPORT**1.0 INTRODUCTION**

The 2017-2021 Financial Plan includes a provision for the annual information technology capital program. This program facilitates the replacement, expansion and upgrading of enterprise and departmental hardware and software in order to enhance City's services to the public and improve the efficiency of internal processes. This request represents a portion of the 2018 program that was approved within the 2017-2021 Financial Plan.

2.0 IT INFRASTRUCTURE PROGRAM**\$2,183,584**

The 2018 IT Infrastructure Program includes replacement and growth initiatives to replace aging computer equipment, upgrade or expand infrastructure to support technical applications throughout City departments, and to enhance service to the public and internal stakeholders.

2.1 INFRASTRUCTURE REPLACEMENT

\$1,417,250

The City maintains an annual replacement program for its computer equipment such as servers, workstations, monitors, tablets and associated peripheral devices. For 2018 funding is required to replace a number of older servers, workstations, networking devices, cabling, and equipment that have reached the end of their useful life.

Specific replacement works consist of:

- Computers, laptops, and related workstation equipment
- Application servers
- Network communications equipment
- Storage disk systems.

2.2 INFRASTRUCTURE REQUIRED FOR GROWTH

\$766,334

This program includes purchases of new computer equipment, peripherals, software licences and services and technology software application upgrades. These purchases will support planned 2018 City initiatives designed to address organizational needs, augment public services and reduce business risks associated with aging technology.

Specific works include:

- network uplink upgrades
- new servers to facilitate implementation of departmental applications
- security posture improvements
- new desktop requirements for departments.

Project descriptions and 2018 cost estimates for the IT Infrastructure Program are presented in Appendix 1.

3.0 BUSINESS SOLUTIONS PROGRAM

\$2,407,500

The City develops an annual plan to replace and upgrade business applications for the purposes of enhancing citizen service through quicker and easier access to City information and services online, and to ensure internal systems are robust, sustainable and continue to evolve to meet the changing needs of the business.

The projects which comprise the proposed 2018 program have been selected by City departments and prioritized based on criteria established by the City's Executive Steering Committee which consists of senior staff from all departments.

To: Chair and Members Financial Management Committee
From: Chief Information Officer
Re: 2018 Information Technology Capital Program
2017 November 22..... Page 3

The 2018 Business Solutions Program includes the following key initiatives:

- Learning Management System
- Property Tax System Replacement
- CLASS System Replacement
- Web Content Management System Replacement
- LIPS Enhancements
- SAP Solution Manager Upgrade
- IT Service Management System Replacement
- Other small departmental systems enhancements

Project descriptions and 2018 cost estimates for the Business Solutions Program are presented in Appendix 2.

4.0 RECOMMENDATION

It is recommended that the Financial Management Committee recommend Council approve the capital expenditure of \$4,591,084 for the 2018 Information Technology Program as outlined in this report, and that the Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserves Bylaw in the amount of \$4,805,620 (inclusive of GST of \$214,536) to finance the program.



Shari Wallace
CHIEF INFORMATION OFFICER

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Copied to: City Manager .
Deputy City Manager
Director Finance
Director Engineering
Director Planning and Building
Director Public Safety and Community Services
City Solicitor

Appendix 1

IT Infrastructure Capital Program for 2018 – Supplementary Information

1.0 IT INFRASTRUCTURE REPLACEMENT 2018

\$1,417,250

The City maintains an annual replacement program for its computer equipment such as servers, cabling, network, workstations and associated peripheral devices. For 2018, funding is required to replace a number of older servers, workstations, and equipment that have reached the end of their useful life.

Specific replacement works consist of:

- PC's, laptops, tablets and related workstation equipment - *\$571,800*
 - Deployment of Windows 10 operating system software and updated application packages to City computers, laptops and workstations.
 - Replacement of mobile Data911 computers in the City's Fire vehicle fleet.
 - Standard lifecycle replacement (Note: Given the greater reliability of equipment, IT has moved to a 5-year replacement schedule for standard workstations, 3 years for laptops and 6 years for monitors)
- Server hardware - *\$232,700*
 - Replacement of existing physical servers with faster, larger format, servers that will better support server virtualization.
- Network communications equipment - *\$454,750*
 - Upgrading facility switches with current models.
 - Upgrading network uplink connection speeds from 1GB to 10GB.
- Storage disk systems - *\$158,000*
 - Standard hardware lifecycle replacement based on risk analysis of the expected life of the units and disk combined with the business criticality of the applications.

2.0 INFRASTRUCTURE REQUIRED FOR GROWTH 2018

\$766,334

This program includes purchases of net new computer equipment, peripherals, software licences and implementation services, as well as upgrades to the technical systems software that operates the hardware. This new infrastructure will support planned 2018 City business solutions initiatives which address organizational needs, augment public services and reduce business risks associated with aging technology.

Specific works include:

- City network uplink upgrades – 8 locations - \$385,200
 - Upgrade network speed to 10GB links for large City facilities.
 - Inclusion of City conduit in existing Engineering capital works projects, building long-term network capacity for civic communications.
 - Migration of City facilities from 3rd party links to City-owned fibre and radio links.
- New Servers to facilitate implementation of departmental applications - \$74,900
 - New servers added for new projects (Note: these are for smaller initiatives; hardware for larger initiatives are included in specific project budgets)
- Security posture improvements - \$74,044
 - Continuing improvement of the City's infrastructure hardening and security posture improvements; this project includes the implementation of enhanced network monitoring tools, e-mail threat detection and security upgrades.
 - Upgrades to perimeter and edge firewalls.
- New desktop requirements for departments - \$232,190
 - Additional IT equipment for City departments to accommodate changes to staffing and service requirements.

Appendix 2

IT Business Solutions Capital Program for 2018 – Supplementary Information

1. Learning Management System

\$160,500

The enterprise learning management system will provide the City with modules covering Learning Catalogue, Learning Registration & Approval, Learning Profiles, Course Completion, Online Surveys and Course Evaluations, Online Learning Platform, Learning Records Management, Integration with Massive Open Online Courses (MOOC), Comprehensive Reporting, Executive Dashboards, and Mobile Compatibility. This project will also provide a cost effective approach to the administration and tracking of mandatory job certifications for staff.

2. Property Tax System Replacement

\$535,000

The Finance Department has been using the existing PTS since 1989 for processing Property Taxes, Utilities, Metered Water, False Alarm, Residential Garbage Toters, Local Improvement and Business Improvement billing. While the system is generally stable, the City has experienced several issues when attempting to perform routine maintenance, often resulting in the loss of service. The amount requested represents the 2018 portion of the overall project cost which includes a Request for Proposal process, solution selection and project initiation and high-level design. The total cost is expected to be in the range of \$3M. The RFP process will confirm the final project cost, which will be presented to the FMC for approval prior to proceeding.

3. CLASS System Replacement

\$535,000

A study to determine the best suitable software replacement for the current Program Registration and Facilities' Booking System (CLASS), as well as initial design work and project initiation. The vendor of the current system (Active Networks) has stated that CLASS will be 'end of life' as of the end of 2017. CLASS is also limited in functionality. Both conditions present a number of operational and technical challenges for the City. The amount requested represents the 2018 portion of the overall project cost. The total cost is expected to be in the range of \$2.5M. The RFP process will confirm the final project cost, which will be presented to the FMC prior to proceeding.

4. Web CMS Replacement

\$53,500

Currently the City is maintaining a number of websites and other digital channels. The main City of Burnaby website, www.burnaby.ca, was redeveloped and launched in 2011 using a Content Management System (CMS) called ACTIVE Content Manager. The vendor recently announced that the system is at end-of-life. The current CMS also no longer meets the needs of the City given the growth in usage and plans for new online service delivery. This project will replace the existing CMS with a new application that will provide a better user

experience for citizens as well as enhanced technical functionality for City staff who maintain the website. The total project cost is expected to be in the range of \$300,000. The RFP process will confirm the final project cost.

5. LIPS Enhancements

\$856,000

The initial focus will be to sustain, stabilize and optimize the LIPS platform and services following the October 2017 go-live. The focus will then shift to a blended approach that includes onboarding remaining case types (e.g., Engineering permits) while sustaining the LIPS platform. This will build on the City's initial investment in the EnerGov platform to create efficiencies and improve service delivery (e.g., by reducing manual paper based processes and providing a single view of a development project for all departments).

6. SAP Solution Manager Upgrade

\$53,500

The SAP Solution Manager tool manages all process and system changes to the SAP environment to ensure that the overall integrity and safe operation of the system is maintained. The use and complexity of Solution Manager has grown substantially since its initial implementation. In early 2016, the City initiated an external review of Solution Manager to provide recommendations on how to streamline the application and ensure it meets the needs of the City's evolving SAP ecosystem. This project represents the effort to continue to implement those recommendations.

7. IT Service Management System Replacement

\$107,000

This project will start the replacement process for the end of life Magic Help Desk system by initiating a requirements gathering study to determine the best fit for the City's needs and to scope out subsequent phases. This project will also include a review of IT service management best practices (e.g., ITIL) with a view to optimizing IT service delivery.

8. Systems Enhancements

\$107,000

A range of minor system enhancements to improve departmental systems functionality and address emerging business needs.