

TO: CHAIR AND MEMBERS
FINANCIAL MANAGEMENT COMMITTEE

DATE: 2019 June 10

FROM: CHIEF INFORMATION OFFICER

FILE: 1900-00

SUBJECT: JUNE 2019 INFORMATION TECHNOLOGY CAPITAL PROGRAM

PURPOSE: To request a Capital Reserve Fund Bylaw to finance the 2019-2020 Information Technology capital program as outlined in this report.

RECOMMENDATIONS:

1. **THAT** Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserves Fund Bylaw in the amount of \$3,243,900 to finance the Information Technology capital program as outlined in this report.

REPORT**1.0 INTRODUCTION**

The 2019 – 2023 Annual Financial Plan will provide funding 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 the City's services to the public and improve the efficiency of internal processes. The purpose of this request is to seek approval of the Committee and Council to finance the 2019 and 2020 Information Technology capital program.

2.0 POLICY SECTION:

The 2019 Information Technology capital program is aligned with the City of Burnaby's Corporate Strategic Plan by supporting the following goals and sub-goals of the Plan.

- A Dynamic Community – Build and maintain infrastructure that meets the needs of our growing community.
- A Thriving Organization – Protect the integrity and security of City Information, Services, and Assets.

3.0 IT INFRASTRUCTURE PROGRAM

The 2019 IT Infrastructure Program includes initiatives to replace aging computer equipment, upgrade or expand infrastructure to support technical applications throughout City departments, and enhance service to the public and internal stakeholders. This funding report, subject to approval by Council, will allow staff to continue with the 2019 IT Capital Program projects listed below.

3.1 INFRASTRUCTURE REPLACEMENT (AEC.0019) Estimated \$2,328,900

The City maintains an annual replacement program for its computer equipment such as servers, workstations, monitors, tablets and associated peripheral devices. For 2019, funding is required to replace several older servers, workstations, networking devices, cabling and equipment that have reached the end of their useful life and to fund essential upgrades to Fire Department hardware.

Specific replacement work consists of:

- Computers, laptops, and related workstation equipment
- Server hardware
- Cabling, wiring and fibre-optics
- Network communications equipment
- Replacement of ruggedized computers (Data911 terminals) onboard fire trucks.

3.2 INFRASTRUCTURE REQUIRED FOR GROWTH (AEC.0018) Estimated \$250,000

This program includes purchases of new computer equipment, peripherals, supporting software and services and software application upgrades. These purchases will support planned 2019 City initiatives designed to address organizational needs, augment public services and reduce business risks associated with aging technology.

Specific works include:

- City network uplink upgrades
- Security improvements

In order to expedite the IT infrastructure program in 2019, the capital plan amounts associated with projects listed in appendix 3 have been reallocated to the IT Infrastructure program and will be deferred to 2020. This expenditure is included in the 2019 – 2023 Provisional Financial Plan and sufficient Capital Reserve Funds are available to finance the capital projects outlined in this report.

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Additional information on the specific projects included in the IT Infrastructure Program is provided in Appendix 1.

4.0 BUSINESS SOLUTIONS PROGRAM (AEA.0084)

Estimated \$665,000

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.

Early funding is being requested for the 2020 scope of work as the Information Technology department is preparing to start working on a key initiative to enhance the resiliency and redundancy of critical Fire systems and to upgrade the Fire Department's Computer Aided Dispatch (CAD) system to the latest version. This project is included in the 2020 Business Solutions Program under Departmental Applications.

This expenditure is included in the 2019 – 2023 Provisional Financial Plan and sufficient Capital Reserve Funds are available to finance the capital project outlined in this report.

Additional information on the specific projects included in the IT Business Solutions Program is provided in Appendix 2.

5.0 RECOMMENDATION

It is recommended that the Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$3,243,900 to finance the Information Technology Capital Program.

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A handwritten signature in black ink, appearing to read "Shari Wallace", with a horizontal line underneath the name.

Shari Wallace
CHIEF INFORMATION OFFICER

BK/cj

Copied to: City Manager
Director Finance
City Solicitor

Appendix 1

IT Infrastructure Capital Program for 2019 – Supplementary Information

1.0 INFRASTRUCTURE REPLACEMENT 2019

\$2,328,900

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

Specific replacement works consist of:

- Workstations (AEC.0019) - *\$1,363,300*
 - PCs, laptops, tablets and related workstation equipment
 - Deployment of Windows 10 operating system software and updated application packages to City computers, laptops and workstations.
 - 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 a 6-year replacement cycle for monitors)
 - This program will replace 1,400 laptops and PCs and 15 tablets.
- Server hardware (AEC.0019) - *\$250,000*
 - Replacement of existing physical servers with faster, larger format servers that will better support server virtualization initiatives. (Server virtualization allows multiple applications to run on a single server reducing overall data centre costs.)
 - Standard hardware lifecycle replacement based on a risk analysis of the expected life of the units and disk combined with the business criticality of the applications.
- Network communications and PCI equipment replacement (AEC.0019) - *\$400,000*
 - Replacement/upgrade of existing cabling to maintain continuity and quality of service
 - Uninterrupted power supply and core firewall equipment
 - Upgrading facility switches with current models
 - Upgrading network uplink connection speeds from 1GB to 10GB
 - Replacement of PCI equipment.
- Fire Resiliency Program (AEC.0019) - *\$315,600*
 - Replacement of rugged mobile computing devices onboard fire trucks (new Data911 terminals or equivalent). These devices run CAD and other Fire applications and are end of life.

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2.0 INFRASTRUCTURE REQUIRED FOR GROWTH 2019 \$250,000

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 City initiatives which address organizational needs, augment public services and reduce business risks associated with aging technology.

Specific works include:

- City network uplink upgrades (AEC.0018) - *\$100,000*
 - 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.
- Security posture improvements (AEC.0018) - *\$150,000*
 - Continued 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
 - Firewall upgrades (perimeter and edge equipment)

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Appendix 2

IT Business Solutions 2020 – Supplementary Information

Departmental Applications:

Computer Aided Dispatch System Upgrade (AEA.0084) - \$560,000

Departmental applications upgrades and enhancements to improve departmental systems functionality and enhance the overall stability of the CAD system. The scope of this project includes upgrading the Fire CAD software application and its database to ensure continuous and appropriate level of service to the public.

Critical Fire System move from Fire Hall 1 to City Hall Main Data Centre (AEA.0084) - \$105,000

This project will relocate most critical Fire application systems currently hosted at the auxiliary data centre in Fire Hall #1 to the primary data centre at City Hall. This will help reduce the potential of unscheduled outages and ensure a higher level of system availability for dispatch staff and first responders when responding to public calls for emergency assistance.

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Appendix 3

The capital plan associated with the following projects has been reallocated to the IT Infrastructure program in order to facilitate work in 2019.

Deliverable	PS Mask	Deferred to 2020
Recreations Activity Management System Replacement	AEA.0080	1,700,000
Information Technology Service Management System	AEA.0068	300,000
Systems Applications and Products Upgrade	AEA.0087	66,400
Learning Management System	AEA.0078	100,000
Bill Presentation and Payment	AEA.0092	45,500
Fleet Management	AEA.0090	118,000
Data Centre - Telephony Upgrade	AEC.0012	249,000
TOTAL:		2,578,900