



CITY OF HAMILTON
CORPORATE SERVICES DEPARTMENT
Information Technology Division

TO:	Chair and Members Audit, Finance and Administration Committee
COMMITTEE DATE:	November 19, 2020
SUBJECT/REPORT NO:	Information Technology Data Centre Air Conditioning System Replacement (FCS20091) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Fred Snelling (905) 546-2424 Ext. 6059
SUBMITTED BY:	Maria McChesney Director, Information Technology Corporate Services
SIGNATURE:	

RECOMMENDATION

That Finance staff be directed to mitigate the additional \$250,000 required to replace the Air Conditioning System in the Corporate Data Centre, through Capital Work In Progress (WIP) funding and/or reserves.

EXECUTIVE SUMMARY

The Corporate Data Centre, located in the Central Library at 55 York Blvd 6th floor, contains the servers and core network infrastructure that store all corporate electronic data and house the network and internet services. Temperature in the Corporate Data Centre is maintained by two air conditioning units which have reached end of life and end of servicability.

A Capital Budget request for \$200,000 for their replacement was approved for 2020. SNC Lavalin was engaged by Corporate Facilities Division staff to oversee this project and based on their analysis, the Capital Budget amount approved will not provide sufficient funding for this project. The estimated cost will exceed this budgeted amount by \$250,000.

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OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Information Technology Data Centre Air Conditioning System Replacement (FCS20091) (City Wide) - Page 2 of 3

Staff is asking for the approval to acquire the outstanding amount from Work in Progress funding or reserves. It is essential that this need is addressed as soon as possible to avoid corporate data loss and possible expense for the recovery or restoration of lost data.

Alternatives for Consideration – See Page 3 or Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: n/a

Staffing: n/a

Legal: n/a

HISTORICAL BACKGROUND

Modern data centers are technologically complex and keeping them running safely and efficiently requires continual close monitoring and management. The recommended temperature for data centers is between 70 and 75°F (or 21 and 24°C). Should the temperature and humidity rise to excessive levels inside the data center, condensation can start to form, thereby damaging the machines within. This can cause massive damage and disruption.

The Corporate Data Centre, located in the Central Library located at 55 York Blvd. 6th floor, currently has two air conditioning units to maintain the temperature. Should one of these units fail, the second unit can temporarily maintain the temperature in a safe range. Equipment would need to be shut down during this period to minimize the heat dissipated into the data centre.

The current air conditioning units have now reached end of life/end of support and replacement is essential to protect the Corporate Data Centre infrastructure. The IT Division of the Corporate Services Department submitted and had approved a Capital Budget request for this purpose and the Corporate Facilities Division staff engaged SNC Lavalin to oversee this project. Based on the analysis of SNL Lavalin, the Capital Budget approval of \$200,000 will be insufficient for this project. The estimated cost will exceed this by \$250,000.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

n/a

RELEVANT CONSULTATION

Corporate Services Department, Finance Division staff were involved in the preparation of this report

Corporate Facilities Division Staff are overseeing this project and have provided the cost estimates through their consultant, SNC Lavalin.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

Locating funds from within current approved funding will allow staff to address this critical need in a timelier manner than the alternative below.

ALTERNATIVES FOR CONSIDERATION

Staff could, through a Capital Budget request to the 2021 Capital Budget, submit a request for the balance required to fund this project. This is not being recommended due to the critical nature of the service. The data centre houses critical information systems infrastructure which must be maintained at a certain temperature to avoid overheating and result in a loss of data and services systems

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

n/a

FS/sn