

4. PREPARING FOR YEAR 2000 WITHIN THE  
REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

COMMITTEE RECOMMENDATIONS

**That Council approve the following:**

- 1. The establishment of a total project estimate of \$19,200,000 for the Year 2000 project;**
- 2. The pre-approval of the 1998 spending plan of \$7,900,000 for the Year 2000 project;**
- 3. An increase in the Chief Administrative Officer's delegated signing authority to \$250,000 for expenditures related to the Year 2000 project.**

DOCUMENTATION:

1. Finance Commissioner's report dated 13 Jan 98 is immediately attached.
2. Extract of Draft Minute, Corporate Services and Economic Development Committee meeting of 03 Feb 98 follows the report and includes a record of all votes.

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON  
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT  
RAPPORT

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Our File/N/Réf.  
Your File/V/Réf.

DATE 13 January 1998

TO/DEST. Co-ordinator  
Corporate Services and Economic Development Committee

FROM/EXP. Finance Commissioner

SUBJECT/OBJET **PREPARING FOR YEAR 2000 WITHIN THE REGIONAL  
MUNICIPALITY OF OTTAWA-CARLETON**

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### **DEPARTMENTAL RECOMMENDATIONS**

**That the Corporate Services and Economic Development Committee and Council approve the following:**

- 1. The establishment of a total project estimate of \$19,200,000 for the Year 2000 project;**
- 2. The pre-approval of the 1998 spending plan of \$7,900,000 for the Year 2000 project;**
- 3. An increase in the Chief Administrative Officer's delegated signing authority to \$250,000 for expenditures related to the Year 2000 project.**

### **BACKGROUND**

There are about 24 months or 500 working days until the turn of the century. The Regional Municipality of Ottawa-Carleton is in a race against time along with every other public and private sector entity in the world to ensure that the day-to-day business of the Corporation is not impacted by technology failures caused by this particular date change.

At the core is a technology problem connected to how dates are stored and manipulated in computer systems. Many systems only use the last two digits of the year and the computer ends up getting confused about whether "00" is "2000" or "1900" when sorting and calculating differences between years. This is the main technical issue, although the extent of the technical problem is actually broader based.

The latest figures by economists place the world wide estimate for dealing with the Year 2000 problem at around \$1.5 trillion. The estimates for the costs of Year 2000 within the United States ranges from \$135 to \$275 billion, and the estimated cost for the US government alone is around \$30 billion. In Canada the federal government is still in the process of identifying the costs of Year 2000, but the estimate to date is around \$2 to \$3 billion. Early estimates show that the cost to the Canadian economy will be somewhere between \$12 to \$20 billion.

The Year 2000 problem has the potential to impact every area of the Region's operations. Essentially, any item that runs on batteries or plugs into a wall needs to be assessed for Year 2000 compatibility. Potentially Year 2000 issues could affect our business systems and computing infrastructure, our facilities management systems (such as those that control the heating and ventilation systems or elevators), and the process control systems (embedded systems that are used to control such processes as the production of clean drinking water or removal of contaminants from the sewage discharge).

The Region could also be impacted by the Year 2000 problems experienced by our suppliers, external contractors, the local utility companies and other business partners that we depend on to carry out our day-to-day business.

## DISCUSSION

Work to address the Year 2000 issue has been going on in the Region for about two years. A number of projects are under way that directly or indirectly address some of the identified problems. Some of the long range initiatives include the Financial Services Renewal (FSR) project, the PeopleSoft Human Resources Information System (HRIS) project, the Improving Client Service (ICS) project in Social Services, and the new Water Billing system (AQUASYS). However, much is still to be done.

In order to maximize our chances of being Year 2000 ready, the entire Corporation needs to be very focused and committed to this problem.

A Year 2000 Project Office has been created in support of this concept. A project manager has been assigned to the project and a Year 2000 Task Force with cross-functional representation has been established and mandated with addressing all aspects of the Year 2000 problem within the RMOC. Management Committee also approved a freeze on new development in order to re-direct the focus of all Information Technology (IT) resources to the Year 2000 problem.

Activities are focused in three areas:

- raising awareness of the potential Year 2000 challenges;
- identification and analysis of potential problems;
- establishment of priorities and work plans.

To date several hundred applications and software packages have been identified that have to be evaluated, tested and potentially retrofitted or replaced, and new Year 2000 issues are uncovered

each day. The Region relies heavily on packaged software for many of the everyday computing requirements. Many of the vendors who sell these products have yet to release a Year 2000 compliant version, making the process of predicting the full impact of the problem quite difficult. In addition, some systems have many components, and although the base system might be Year 2000 compliant, it may run on a platform, or with associated components that are not, making the identification issue quite significant.

The Year 2000 problem potentially extends to every system in use within the Corporation, and represents the largest IT project that has ever been undertaken within the Region. Given the number of issues that must be addressed, and the complexity of some of the issues and solutions, it is possible that a large amount of the work may not be completed by 01 January 2000. It is essential to ensure that the most critical problems get addressed first.

As part of the Year 2000 review, an analysis is being done prior to identifying potential modifications or replacement of any existing system that will examine the potential for:

- de-commissioning the existing system;
- replacing the system with a manual process; and
- developing a contingency in the form of a “work around” to enable the system to continue to operate past 01 January 2000 (for lower priority systems).

Developing priorities and setting the final work plan for Year 2000 will occupy the next few months, although work on “obvious” high priority Year 2000 problems will continue. Management Committee has approved six criteria for measuring risk associated with Year 2000 challenges. The following criteria will be used to establish priorities within the Year 2000 work plan:

- Loss of life/limb or potential health hazard to staff or the public;
- Major disruption in service to the public;
- Major loss in revenue;
- Legal exposure based on statutory requirements;
- Loss or damage to facilities, equipment and systems; and
- Damage to the image of the Corporation.

Although identifying projects and workplans is an essential step, implementation is complicated by the labour market shortage of experienced professionals. There has been a marked increase in the turnover rate of positions that fall into the category of “hot skills” as the high technology sector continues to grow. The Information Systems Division in the Finance Department had to replace 11 people in 1997 as a testament to the impact of this trend on the Regional Municipality.

Federal government spending on Year 2000 will impact the availability of local consultants and this has driven up the per diem rates on a monthly basis to the point where many are more than double what they were a year ago. One of the biggest risks for the Year 2000 program at the RMOC will be the availability of enough staff and external consultants to complete the work plans.

To help mitigate this risk, the Region is working closely with the municipalities of Ottawa, Gloucester, Nepean and Kanata and with the Federal Government to identify opportunities to share information and costs of solutions wherever it is feasible.

### SPENDING PLAN

The Year 2000 Task Force was directed by Management Committee to develop a Corporate Year 2000 capital budget and has come up with an estimate of \$19,280,000 for the cost of Year 2000 within the RMOC (see attached capital budget pages at Appendix B). There are six categories of work associated with Year 2000 expenditures:

- Project Management Costs;
- Embedded systems-process control systems within the utilities of Environment and Transportation Department (examples include: the sewage treatment system at ROPEC, the control system for the water filtration plant at Lemieux Island, the pumping stations for the supply of water to residents and business, traffic management systems);
- Facilities management systems (examples include: elevators, heating and ventilation systems, security systems and building access control systems);
- Business systems and packages software (examples include: mainframe applications, database systems, client server applications and off-the-shelf software);
- Hardware and network infrastructure upgrades (examples include: network servers, data communications equipment which link different locations, telephone systems); and
- Corporate contingency.

A more detailed breakdown is included at Appendix C.

Much of the work will be performed by outside vendors and therefore, many of the costs associated with these projects cannot be estimated with any degree of accuracy at this stage in the analysis. Although staff hope the costs will be less than \$19,280,000, final estimates will not be available until the evaluations are all complete.

Not included in the above estimates are a number of IT initiatives already under way that have a direct relation to the problem in that they also address some existing critical Year 2000 issues:

- Financial Services Renewal (FSR) Project;
- Municipal Geographic Information Systems Partnership Project;
- Replacement Water Billing System;
- PC hardware replacement program;
- Retention strategy for Information Systems employees;
- Human Resources Information System (HRIS) Project.

While all of these projects received previous approval under separate budgets, they bring the total projected spending related to Year 2000 to close to \$30,000,000 or about 1% of the Region's annual budget for the next two years. Industry estimates are that medium to large sized corporations could spend up to 5% of their annual budgets on Year 2000 over the next two years.

The deadline for addressing Year 2000 priorities is fixed. **It is 01 January 2000.** The Region will be spending an average of about \$800,000 per month for the next 24 months. Therefore speed in bringing in outside consultants to do the work is paramount to the success of the project. Each day that is lost is a missed opportunity to complete a small portion of the workplan and will potentially increase the work that will not be completed by 01 January 2000.

To shorten the process of selecting consultants, per diem rates are being established with the City of Ottawa through a joint RFP process.

However, the current delegated authority limits for the Chief Administrative Officer are such that most of the projects in this program will have to go to Committee and Council for approval, and this could result in some significant scheduling delays for the project.

Therefore, it is recommended that the delegated authority levels for the Chief Administrative Officer be raised to \$250,000 for expenditures against the Year 2000 Capital budget. This increased authority would allow a number of small and medium sized projects to get started faster, and would offset the reduction in the number of consultant days that can be purchased within the existing delegated authority limits caused by escalating rates.

#### PUBLIC CONSULTATION

Public consultation is not required.

### EXPENDITURE JUSTIFICATION

Year 2000 is a real problem that could seriously impact the Region's ability to carry on regular day-to-day business and could result in significant legal exposure if steps are not taken to address the problem. Work on this project must be completed prior to 31 December 1999.

### FINANCIAL STATEMENT

Authority of \$19,280,000 is required to address the evaluation and replacement/retrofitting of affected applications.

The specific apportionment of the funding between reserve funds will be finalised as part of the 1998 Capital Budget.

Pre-approval of the 1998 spending requirements of this project in the amount of \$7,900,000 represents a pre-commitment against the 1998 Capital Budget.

Subject to Council Approval.

*Approved by  
J. C. LeBelle  
Finance Commissioner and Treasurer*

## APPENDIX "A"

PREPARING FOR YEAR 2000 WITHIN THE REGIONAL MUNICIPALITY OF  
OTTAWA-CARLETON  
13 January 1998

### PROPOSED CORPORATE YEAR 2000 CAPITAL BUDGET

1. Project Management Costs	\$ 580,000
2. Embedded systems-process control systems within the utilities of Environment and Transportation Department (examples include: the sewage treatment system at ROPEC, the control system for the water filtration plant at Lemieux Island, the pumping stations for the supply of water to residents and business, traffic management systems)	\$ 8,800,000
3. Facilities management systems (examples include: elevators, heating and ventilation systems, security systems and building access control systems)	\$ 500,000
4. Business systems and packages software (examples include: mainframe applications, database systems, client server applications and off-the-shelf software)	\$ 6,600,000
5. Hardware and network infrastructure upgrades (examples include: network servers, data communications equipment which link different locations, telephone systems)	\$ 1,800,000
6. Corporate contingency	\$ 1,000,000
TOTAL:	<hr/> <u>\$19,280,000</u> <hr/>



<u>Department/Cost Centre</u>	<u>1998</u>	<u>1999</u>	<u>2000 Total</u>	<u>Comments</u>
<b>Project Management Costs</b>				
<i>Project Management Office</i>				
<i>Business Services Branch - ISD</i>	190,000.00	170,000.00	80,000.00	440,000.00 Staff and benefits, other office expenses
<b>Sub-Total</b>	<b>60,000.00</b>	<b>80,000.00</b>	<b>0.00</b>	140,000.00 Temporary position
	<b>250,000.00</b>	<b>250,000.00</b>	<b>80,000.00</b>	<b>580,000.00</b>
<b>Embedded Systems</b>	<b>3,000,000.00</b>	<b>4,000,000.00</b>	<b>1,800,000.00</b>	<b>8,800,000.00</b> Process control applications within ETD (Water, Mobility Services, WEPD, etc.)
<b>Planning and Development App.</b>	<b>250,000.00</b>	<b>250,000.00</b>	<b>0.00</b>	<b>500,000.00</b> Facilities management systems
<b>Business Systems:</b>				
<i>Project Management Office</i>				
<i>Business Services Branch - ISD</i>	125,000.00	125,000.00	0.00	250,000.00 Consultants
<i>Software</i>	50,000.00	50,000.00	50,000.00	150,000.00 Packaged software to replace existing systems
<i>Consultants</i>	600,000.00	650,000.00	600,000.00	1,850,000.00 ISD Supported Applications (Non-mainframe based systems)
<i>Consultants</i>	750,000.00	250,000.00	0.00	1,000,000.00 ISD Supported Applications (Mainframe based systems)
<i>Consultants</i>	100,000.00	0.00	0.00	100,000.00 ISD Supported Applications used by SSD
<i>HelpLine Branch - ISD</i>	25,000.00	75,000.00	100,000.00	200,000.00 Consultants
<i>Environment and Transportation</i>	600,000.00	500,000.00	250,000.00	1,350,000.00 Consultants and packaged software (ETD Business Applications)
<i>Health</i>	150,000.00	50,000.00	0.00	200,000.00 Consultants and packaged software (Health Department Applications)
<i>Social Services</i>	1,000,000.00	500,000.00	0.00	1,500,000.00 Consultants and Packaged Software (Other SSD Legacy Applications)
<b>Sub-Total</b>	<b>3,400,000.00</b>	<b>2,200,000.00</b>	<b>1,000,000.00</b>	<b>6,600,000.00</b>
<b>Hardware Infrastructure</b>				
<i>Environment and Transportation</i>				
<i>Technology Infrastructure - ISD</i>	200,000.00	200,000.00	50,000.00	450,000.00 ETD - File and Applications Servers, network infrastructure
<i>Consultants</i>	50,000.00	150,000.00	100,000.00	300,000.00 Systems Integration
<i>Network Software Systems</i>	50,000.00	50,000.00	50,000.00	150,000.00 ISD - OS, Exchange, backup software, network software
<i>Hardware Networking Components</i>	0.00	100,000.00	0.00	100,000.00 ISD - Mainframe hardware upgrades
<i>Telecom and Test Equipment</i>	200,000.00	400,000.00	200,000.00	800,000.00 ISD - Test/replacement servers, networking equip, telecom (not desktops, printers)
<b>Sub-Total</b>	<b>500,000.00</b>	<b>900,000.00</b>	<b>400,000.00</b>	<b>1,800,000.00</b>
<b>Corporate Contingency</b>	<b>500,000.00</b>	<b>500,000.00</b>	<b>0.00</b>	<b>1,000,000.00</b> Contingency for the unexpected
<b>TOTAL</b>	<b>7,900,000.00</b>	<b>8,100,000.00</b>	<b>3,280,000.00</b>	<b>19,280,000.00</b>

## APPENDIX "C"

### REGIONAL MUNICIPALITY OF OTTAWA-CARLETON CURRENT INVENTORY OF YEAR 2000 APPLICATIONS/ISSUES (as of 13 January 1998)

All systems/items listed below must be evaluated for Year 2000 compliance. Some of this work is already complete or in progress. This list excludes applications at the Ottawa-Carleton Regional Police Services and at OC Transpo.

#### **CORPORATE WIDE APPLICATIONS** **(affects all departments)**

NOTE: Some of these applications are duplicated under other departments.

E-Mail (Internal)  
E-Mail (External)  
Office, Office 95, Office 97 (which include):

- MS Word
- MS Project
- MS Excel
- MS Powerpoint
- MS Access

FoxPro for Windows  
Org Chart Plus for Windows  
Corel  
Winfax Pro  
Jetform  
Omnipage scanning software  
Reference Manager (RefMan)  
All Financial Systems (A/R, A/P, Inventory, General Ledger, etc.)  
HRIS - PeopleSoft  
HRIS - Crystal Reports generator  
SCOPUS (complaint tracking)  
Maximizer  
Vision (GIS system)  
RIS/Internet

#### **ISD MAINFRAME NETWORK SYSTEMS:**

All Windows NT, Novell Netware, Sun Solaris Servers and all specialized servers (includes utilities and specialized software on the server)  
Shared printer servers  
All links to remote sites  
External Internet Access  
All other electronic communication links - Internal/External

#### **TELEPHONE SYSTEMS:**

All telephone equipment and software associated with:  
External 7-digit (receptionist's lines)  
External 7-digit - direct dial (DID links)  
Automated attendant (links)  
Internal - 4 digit dial - same location  
Internal - 4 digit dial - other locations  
Long distance service  
Voice mail  
Voice mail trees (incoming external)  
FAX  
Cell phones  
Beepers

#### **FACILITIES MANAGEMENT:**

For all Regional facilities:

- security systems
- heating and ventilation systems
- elevator systems
- other specialized building control systems
- emergency backup generators

#### **CORPORATE FLEET:**

RMOC Vehicles  
Test and vehicle repair equipment  
Automated fuel dispensing systems

#### **OTHER ITEMS/ISSUES:**

Internal / External Mail / External couriers, etc.  
External Supplier Chain  
Photocopiers, other reproduction equipment  
All other vital upstream/downstream business partners (eg. Hydro, Bell, Municipalities, Province, etc.)

#### **REGIONAL CHAIR AND COUNCILLORS;** **CHIEF ADMINISTRATIVE OFFICER'S** **OFFICE;** and **REGIONAL CLERK'S** **DEPARTMENT**

Inactive Records  
TDMS (Official Languages) System

Vote Tracking System  
Voter Notification System  
Mail Logging System  
Corporate Records Management System  
Contracts/Agreements System

**ENVIRONMENT AND**  
**TRANSPORTATION DEPARTMENT**

Inventory  
Counter Orders  
Water Meter  
RIMS  
ArcView  
FlowSearch  
Mapinfo 4.1  
MBADES  
MeterMaster  
MSC/C++  
R&R  
Signaplot  
StatGraphics  
Training System  
Turbo CAD  
AutoCAD  
dBASE III+  
dBASE IV  
PC/Anywhere  
ProComm  
Reachout  
Timeline

AA  
AB/SCADA  
ABH I/O  
AccRate  
ACSIW  
AGAT  
ArcView  
AT Timer  
ATR  
Autocad R12/R13, Lite, etc.  
Bennie  
C&O Info  
CASSWorks  
CCOST  
CDI  
CIRCUS  
CMMS  
CMS  
Collision  
ColRep  
Compumod  
Concrete  
Consult

ContractPrep  
CountBoards  
DataLoggers  
DataRadio  
Dic\_Jon  
DOS  
DSGN  
DynaFlec  
EASI-I  
EASI  
ECAM  
ERWIN  
ETS  
FinRow  
FinTrack  
FIX  
FoxPro  
Gandalf  
Gasboy  
Geoware  
Gint  
HVAC  
HWIS  
HYDRANT  
Inq  
InstrumInd  
InstrumLab  
InstrumSWQ  
InterVolt  
LIMS-C  
LIMS-I  
LIMS-R  
Logic  
MailReg  
MapCon  
MapInfo  
Maximizer  
MBADES  
MiscFox  
MOEE  
Mooney  
MSDS  
Nematron  
NewLeaf  
OPMS  
OPSS  
Oscar  
PanelMate  
PayVoucher  
PBTS  
PC/Anywhere  
Permits  
PMS  
PowerBuilder

Procomm	Road Needs
QNX Trail	Service Req
Reachout	SID
Rental	Sign Guide
RIMS	Sign Manual
RMS	Signal Check
RoadCut	STCS
RoadNeeds	TMCS-L
Rockwell	TRS
RSX	Update
RTA	Work Forecast
RWIS	Water Meter
Sample	ROMS
SBDS	Download 1
SCADA-LB	Download 2
SCADA-R	FlowSearch
Scopus-H	Jet Form
Scopus-SW	MeterMaster
SigmaPlot	MeterRead
SigWin	MSC/C++
SolidPlan	Oracle 7.2
StatGraphics	R&R
STEVEL	Scanners
SuperPMS	Symbol App Developer
SWIS	Upload 1
SysArch	Upload 2
Telesafe	Crystal Reports
TI	MicroStation
Timeline	InRoads V7.0
TMCS	StormWorks V7.0
Trail	DraftWorks V2.1
CaBiT	CogoClassic
TSIPS	InterPlot IPLOT Server 8.0
Turbo Cad	Visio 4
Utopia 2.1	CLIX
VALVE	CLIX - MicroStation
Vault	CLIX - InRoads
Visual Basic	CLIX - Iplot
Watcom	PKZIP (Win 3.1)
WEIS	PKZIP (Win NT,95)
WSC	Aerial
Bellcust	225 Link
Detector Sys	3m Vehicle Detection
DM	Aapex
EASI reports	Cpack
Essedit	Freeze Frame 2
Hydro	Husky
ISR	Kcontrol
L8Dnld	Multipro
L9Dnld	Netsim
Location Ref	Thumbs
Mail System	Transyt-7F
Payment Sys	Traxfax
QCL	Time Space Diagram Windows 2

AutoVue  
 McTrans  
 Project  
 CogoWorks V2.1  
 FieldWorks V7.0  
 InterPlot IPLOT Client 8.0  
 InterPlot HPGL Server  
 InterPlot Driver Pack  
 Imagineer 2.0  
 MicroStation V5  
 CADscript V6.0  
 LEGATO NetWorker  
 NT Workstation V4.0  
 NT Server V4.0  
 JetDirect Print Server Software  
 PC PATHFINDER MAP  
 Images-3D  
 Hec-RAS  
 Cogo-PC Plus  
 Woods  
 P-Frame  
 S-Frame  
 Bricom  
 Structs  
 Quick Basics  
 Sign Design  
 SCADA - Water Division  
 QNX Loretta  
 Backup Exec  
 Power Chute  
 Thawing Machines  
 Diesel Generators  
 Datasondes  
 Level meters, autosamplers  
 Rain gauges  
 Temperature Loggers  
 Sutron Dataloggers  
 Quick Basic  
 SoftRisk version 3  
 Professional File

**FINANCE DEPARTMENT**

Assessment  
 Contracts/Tenders (excel)  
 Debenture System  
 Legal Imprest (Acct)  
 Logbook  
 Receipts  
 Budget (Operating)  
 Budget (Capital)  
 Work in Progress  
 Accounts Receivable  
 ASAFIN  
 Insurance Claims

Insurance Registry  
 Development Charges (Finance/Planning  
 Departments)  
 Enterprise 5000 v. 3.1.6

**OTTAWA-CARLETON HEALTH  
DEPARTMENT**

Activity Reporting System (ARS-Adult)  
 Smoking Stages of change  
 Family Index System (FIS)  
 Adult Volunteer Database  
 Combook  
 Health Info Santé  
 TB Screening Application  
 Your Heart Health  
 Heart Health Database  
 Bon Appetit  
 Child & Adolescent Division Budget database  
 CCAC visits  
 Certificate generation program  
 Activity Reporting System (ARS-CAD)  
 Immunisation Record Information System  
 (IRIS)  
 Family Index System (FIS)  
 School Health Record System (SHR)  
 Hep "B" Tracking System  
 IRIS Utility Program  
 Meningo Search  
 Parent Baby Info Line  
 Prenatal Intake System  
 Activity Reporting System (ARS-HSP)  
 Dental Indices Program (DIS)  
 Children in Need of Treatment (CINOT)  
 Dental System  
 HIV Surveillance (Contact)  
 Sexual Health Clinic Program  
 SITE - Needle Exchange Program  
 RDIS (See Environmental Health /  
 Communicable Disease Control  
 CINOT / CAS (Children in Need of Treatment)  
 CINOT 5  
 Dental Indices Program  
 IRIS (AMOH Use)  
 Autoclave  
 Cash register  
 Bioinventory System (BIOS - Vaccine inventory  
 and ordering system)  
 Reportable Disease Information System (RDIS)  
 Beach Statistics Info. System  
 Complaints  
 Food Handler Training  
 Health Inspection Database  
 Pool Statistics Information System  
 Water Sample Database (RHU)

Interactive Voice Response (IVR)  
Activity Reporting System (ARS-Adult)  
Combook  
Q.S.R. NUDIST  
EPI Info. Version 6  
SPSS Ver. 6.1.3  
The SAS System Ver 6.11  
Mitel Superset 7 - telecommunications pkg.  
Program Planned Budgeting (Ministry  
budgeting system)  
InMagic DB/Text

### **HOMES FOR THE AGED**

Compusis/Staff Scheduler  
Trust Fund Accounting  
Applicant Tracking  
Resident documentation  
Blood pressure meters  
Digital thermometers  
Digital timers on bathtubs  
VCRs

### **HUMAN RESOURCES DEPARTMENT**

Job Evaluation  
First Aid  
EAP System  
CCInfo  
Peoplesoft  
Confined  
LTD Database (Foxpro)  
Medical Records (Foxpro)  
WCB/Accident Database  
Immunization  
Job Evaluation  
Payroll (Mapper)

### **INFORMATION AND PUBLIC AFFAIRS DEPARTMENT**

Quark Xpress v. 3.3

### **INFORMATION SYSTEMS DIVISION (FINANCE DEPARTMENT)**

#### **BACKUP:**

Colorado Tracker 250 v. 4.03  
PCZIP/PKUZIP v 2.04  
WinZip V.6.2

#### **CHARTING:**

Org Chart Plus  
Visio

#### **DATA MODEL:**

System Architecture

ERWin

#### **DEPARTMENTAL:**

Intellilink

#### **DESKTOP:**

Exchange  
SMS  
Word Viewer

#### **DEVELOPMENT:**

Pro C  
Access  
FoxPro  
PowerBuilder  
Visual Basic

#### **FAX:**

WinFax  
WinFax Pro

#### **FORMS:**

Jetform Central  
Jetform Filler v 4.22

#### **HARDWARE INFRASTRUCTURE:**

Postal Union  
Gandalf - Router software v. 3.1.0  
Gandalf - Router software v. 3.2.1  
Gandalf - Router software v.3.1.1b  
Gandalf - Router software v 3.2.2.  
Gandalf - Router software v M2507  
Gandalf Console software v 1.0.0  
3 Com - FDDI Ring  
3 Com - FDDI Ring Builder 1.0.1  
3 Com - Hub software v 4.0.1  
3 Com - Switch software v 8.1.1.  
Mitel - ISDN Nodes  
Baranof - MailCheck v 3.00  
Novell MPR v 2.00  
Shiva v 4.0 and v 5.0  
Gandalf - TFTP  
What's Up  
Blackhole  
Novell NOS  
NT Server

#### **MAINFRAME CONNECTIVITY:**

Attachmate - PEP  
Attachmate - Cadet  
Attachmate - InfoConnect v 2.1

#### **OPERATING SYSTEMS:**

Solaris

DOS  
NT Workstation  
Windows 95  
Windows NT

**PEOPLESOFT:**

PeopleSoft Application  
PeopleSoft Tools

**TELEPHONES:**

Mitel - IVR  
Mitel SX2000  
Mitel - OPS Manager  
Mitel Tasks  
TELCO  
Mitel - Voice Mail

**PUBLISHING:**

Corel Ventura  
Image Assistant  
WordScan  
CorelDraw v 5.0 and v.7.0  
OmniPage and OmniPage Pro v 5.04e

**RDBMS:**

R2D/Objectstar  
SQL Server Windows  
Oracle

**REPORTING:**

Crystal Reports

**RESEARCH:**

Computer Select  
Technet

**TRACKING:**

Utopia v. 2.1  
Maximizer  
MS Project v. 4.0

**UNIX:**

Linux - Red Hat  
BASH  
BSD  
Cron (from NeXTStep 3.3)  
fvwm  
GNUgcc  
GNUtar  
GNUZip  
HPNP  
TCSH  
Top  
Traceroute

xpm  
Unix v. 5.3

**WEB SERVER/INTERNET:**

AgendaBuilder  
Datamaker  
CORIM  
PDF Mailserver  
SQL2HTML  
Upload.cgi  
swish  
Acrobat Distiller  
Acrobat Exchange  
Internet Explorer  
NeXTStep v. 3.3  
OpenBase v/ 5.0.1  
Perl v.5.002  
SafetyNet v. 2.5r1  
WebObjects v. 2.0  
wwwwais v. 2.5  
Acrobat Reader v. 2.1  
Apache v 1.2  
Netscape

**COMPLIANT:**

CD-Oasys  
CD Roll  
Computer Centre Runs  
Phone Reports  
R.I.S.

**LEGAL DEPARTMENT**

Time Reporting System  
Amicus Attorney v 1.5.3.  
Word Perfect v. 5.1

**PLANNING AND DEVELOPMENT**

**APPROVALS DEPARTMENT**

Timberline (Property Management/Legal)  
Joint Housing  
Property Management Reporting  
Employment Survey  
Columbus  
PHD  
Lotus 1-2-3 for Windows

**SOCIAL SERVICES DEPARTMENT**

Daycare  
Automated Intake  
Central Client Index  
EPD - Employment Programs including ACT,  
YEPP, ESU

Home Help  
Home Support  
Payment Processing System  
Residential Care  
Special Care / Supplementary Aid  
Youth Assistance Program  
Welfare  
Dental System  
Line 1000  
CIMS Comprehensive Income Maintenance  
CWT - CaseWorker Technology  
Citrix Data Entry and Remote Communications  
Application  
Front end processor communications link to  
CIMS  
Infoshare  
Joblink - Case Management - ERC  
Choices Career Assessment - ERC  
Ontario Works Technology (OWT)  
Contact 4 - ERC  
Proxnet Security Software (West ERC)  
Client Registration (ERC) file retrieval using  
bar coding via Case ID  
Eligibility Review Credit Bureau Application  
Community Placement and Resources  
Outreach Statistics Packages  
Ontario Works Participation Agreement  
DSS - Decision Support System Applications  
SSD Problem-Help messaging system  
Winway (French and English) Resume Writer  
Corel Office Suite (French and English)  
Typing Tutorials for clients (French and  
English)  
Social Services - Finance and Administration  
Budget (EXCEL)  
Corporate Finance (EXCEL applications)  
Overpayments (ACCESS and EXCEL)  
Overpayment calculator

### **WINDOW ON THE REGION**

OSCAR 1  
Rooms  
Composter Receipts (Excel)  
Print Shop Work Order charges (WOTR and  
finance)  
Scopus (Call tracking)  
24 hour service  
Sytos Plus v 1.21



PREPARING FOR YEAR 2000 WITHIN THE  
REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

Finance Commissioner's report dated 19 Dec 97

Mr. G. Geddes, Manager, Year 2000 Project, made a presentation on the preparations within the RMOC for the Year 2000. He spoke about a spending plan that calls for a total expenditure of \$19.2 million in the next three years, and he provided budget estimates related to that amount. He alluded to a number of cooperative efforts presently underway and he presented Year 2000 options saying the intent is to ensure that the day-to-day business of the regional corporation will not be impacted by technology failures caused by this particular date change.

The Committee heard from the Environment and Transportation Commissioner, M. Sheflin, who began by saying the systems that will be impacted are considered as infrastructure and products that are consumed, much like electricity and fuel: they are an integral part of the RMOC's operation. The Year 2000 will affect components controlled by the SCADA system at the Lemieux Island and Britannia Pumping water plants, as well as embedded systems that compose part of the water distribution system. In addition, the operations at the Robert O. Pickard Environment Centre and at the Trail Road Landfill site will be affected. Many activities associated with the maintenance of roadway infrastructure are controlled by embedded systems that have a date component. Other systems including distribution networks, pressure zones and reservoir fillings are controlled through the SCADA system: from these automated control processes, the department has made significant gains in efficiency and has kept costs low. For these reasons, the resolution of Year 2000 compliance problems must be considered as an ongoing investment in department's infrastructure to support day to day business. While staff will continue to work over the next two years repairing or replacing systems, it must be stated that all problems will not be able to be addressed before January 1, 2000; staff are trying to minimize both the number and the impact of the problems that remain after that date. Mr. Sheflin concluded by saying that all systems would have to have been renewed and replaced over a period of time, however something that may have been done in five years will have to be done before the Year 2000 deadline.

The Social Services Commissioner, D. Stewart spoke about the Improving Client Service (ICS) initiative launched in 1994, saying its aim was to reduce and re-direct administrative resources and focus on employment outcomes. The department is in the final stages of this process and many applications have been automated. The department has 32 applications and 12 mainframe-based, client-led applications, as well as 19 applications associated with the requirements of the senior levels of government.

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Corporate Services and  
Economic Development Committee  
03 February 1998

The Committee heard from Dr. G. Dunkley, Deputy Medical Officer of Health, who indicated the Department is reviewing all its systems and has identified 8 applications that could be done more efficiently. Some programs that are not Year 2000 compliant are: Immunization Records (160,000 records); Restaurant Inspections (12,000 inspections); communicable disease monitoring systems that feed into large provincial systems; client-patient records, specifically for the dental clinics and requiring close cooperation with the Social Services Department. Dr. Dunkley pointed out that many systems in use are provincial systems, and the department has been pressuring the Ministry of Health to assume its part of the responsibility with respect to Year 2000 compliance, without much success to date.

The Planning and Approvals Commissioner, N. Tunnacliffe, spoke about the systems required to operate and manage buildings owned or leased by the RMOC (62 owned, 64 leased). Computers operate fire alarms, access, heat, ventilation, elevators; they ensure the elimination of toxins such as carbon monoxide from underground garages; they operate systems specific to the requirements of law enforcement agencies and they ensure emergency power is available in long term care facilities such as Homes for the Aged. He said it will be critical, on January 1 2000, if any of these systems are unable to operate.

The Finance Commissioner, J. C. LeBelle spoke about the technology infrastructure staff looking at many other areas, for example, Wide Area Networks, and seeking alternatives for systems that will not be compliant before Year 2000. The most cost-effective solution may be to ensure mainframe compliance. With respect to Local Area Networks (LAN), network servers will have to be examined and made compliant. In the area of Personal Computers, any pre-Pentium chip PC will need to be replaced. Mr. LeBelle said there is relative certainty that the telecommunications system is Year 2000 compliant but staff will need to ensure all elements are operational and this will also be addressed over the next 18 months.

Councillor A. Munter asked if it were fair to assume that the cost of equipment and skills being purchased was \$5 million. Having received an affirmative reply, he posited that, had the Region started the process one year ago, this cost could have been halved. The Councillor also presumed that upgrades will be to the latest versions and the best systems available. He inquired as to what component of the \$19.2 million represents Year 2000 and what component represents state-of-the-art applications that will negate having to spend more money in subsequent years. G. Geddes replied there is not a simple answer to this question. Mr. Sheflin added the amounts could not easily be determined, however some guestimates could be made. As to whether there would be requests for additional funding to address emerging problems, the Commissioner said staff will make the appropriate risk analysis before eliminating any system. In reply to a question about the source of the funding, Mr. LeBelle confirmed it would come from a number of reserve funds from each business entity and this information will be outlined in the Capital Budget document.

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Councillor R. Cantin said he believed approximately \$3.5 million is spent in an average year in all the budgets of the corporation, therefore this represents an incremental cost of 50% of regular business. Mr. LeBelle noted that the costs are associated with repairs and replacement and coming up with alternatives. With regard to the Environment and Transportation Department, Councillor Cantin asked whether suppliers could not provide major assistance. Commissioner Sheflin confirmed staff would investigate this option first, as these are the systems that have allowed regional costs to be kept low three years in a row, and he confirmed there will be no increase in rates for solutions or for upgrades. Councillor Cantin put forward a Motion calling for approximately half the requested amount to be approved, subject to subsequent amounts being approved as part of the budget deliberations.

Councillor M. Meilleur confessed she could not understand how the situation with Year 2000 had arisen, given the number of experts in the field and the information technologies available. Commissioner LeBelle pointed out there is growing acknowledgment that using only two digits to save space and reduce size was a strategic error made in the early days of computer development. Councillor Meilleur asked whether all the applications/programs listed in the report were obsolete. Mr. LeBelle replied in the negative. He clarified staff want to do a complete inventory of all technology in all departments to ensure there are no problems. He speculated many applications listed will not be affected. In reply to a question from Councillor Meilleur on product life-cycles, G. Geddes indicated these have dropped from 7 years to 6 months and even to every quarter for some applications and he speculated this situation may be profit-driven.

Councillor G. Hunter said he hoped there would be some kind of audit of the need to examine so many programs. Commissioner LeBelle assured the Councillor there will be prioritization as staff anticipate some difficulty in acquiring the resources needed and keeping the resources currently available.

In an effort to explain the relevance of dates on microprocessors, and in response to further questions from Councillor Hunter, the Director, Water Environment Protection Division, Ms. N. Scheppers, gave the example of a level indicator inside the SCADA system. She said there could be a problem if there is an embedded chip with a date inside the system. Staff are attempting to identify the critical parts of all these interconnecting systems, to ensure they communicate with one another and continue to function.

Councillor L. Davis said there are concerns staff are requesting a "blank cheque". She asked whether there is any in-house expertise relative to the industry to ensure the money isn't being spent carelessly. Mr. Geddes indicated there is such expertise in house. In addition, tenders have been broken down into several components and are being advertised through the open bidding system. The problem is the lack of expertise on Year 2000 in the industry and this may have an impact on the RMOC. Also, suppliers cannot guarantee per diem rates for 6 months as the Region would prefer.

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Councillor D. Beamish asked about costs identified for the year 2000 in the spending plan, specifically whether these apply to 1999 expenditures. G. Geddes said these amounts would cover the costs of upgrading the systems identified as being upgradable at a later date. Councillor Beamish wanted to know whether systems purchased recently and touted as being Year 2000 compliant were later found not to be compliant. Mr. LeBelle said he was not aware of any specific circumstance where this might have occurred. The Director, Information Systems Division, Ms. S. Lechner, added that staff have not completed their evaluation, however if it were discovered this has happened, the matter would be discussed with the product supplier.

Councillor A. Loney moved the report recommendations, saying he saw the issue as two-fold: is there a problem with Year 2000 compliance (there is a recognition this is the case) and does Council trust the advice of staff. He expressed the belief staff will do its best to protect the investment and he suggested it was time to proceed.

Councillor R. Cantin asked whether staff could comment on his proposal to provide half the requested funding at this time. The Finance Commissioner said he could appreciate the discomfort of Council in this regard, and if the Committee felt more comfortable with a revised number, staff would undertake what work it can at this time. Councillor Meilleur asked if a reduced amount would not preclude signing a more acceptable contract and expose the Corporation to losing a good provider. Mr. Geddes agreed this was a risk, citing as an example his having lost the ability to hire two consultants because the funding was not in place.

Councillor R. van den Ham said the discussions have confirmed both his instinct and his confidence that regional staff will not spend what they don't have to spend. He agreed this is a difficult decision to make but he could not support a recommendation for reduced funding.

Councillor G. Hunter indicated that, while he felt more comfortable with this matter than before, he was still hesitant about the increase in the delegation of authority. He asked that the Chief Administrative Officer be given a direction to devise a significant reporting mechanism to keep Council informed about what is being discovered through the evaluation and if upward adjustments need to be made. He expressed the hope the \$19.2 million represents the worse case scenario that Council will have to face.

Pursuant to the presentations, the Committee considered the departmental recommendations.

**That the Corporate Services and Economic Development Committee and Council approve the following:**

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Economic Development Committee  
03 February 1998

- 1. The establishment of a total project estimate of \$19,200,000 for the Year 2000 Project;**
- 2. The pre-approval of the 1998 spending plan of \$7,900,000 for the Year 2000 Project;**
- 3. An increase in the Chief Administrative Officer's delegated signing authority to \$250,000 for expenditures related to the Year 2000 Project.**

CARRIED