

ITEM 3
MANAGER'S REPORT NO. 59
COUNCIL MEETING 1983 10 03

RE: FEASIBILITY OF AUTOMATED ELECTION SYSTEM

MUNICIPAL MANAGER'S RECOMMENDATION:

1. *THAT the recommendation of the Director Administrative & Community Services be adopted.*

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1983 September 29.

TO: MUNICIPAL MANAGER
FROM: DIRECTOR ADMINISTRATIVE AND COMMUNITY SERVICES
SUBJECT: FEASIBILITY OF AUTOMATED ELECTION SYSTEM

RECOMMENDATION:

1. THAT the larger municipalities throughout the lower mainland be requested to give an indication of their support for the concept of an automated voting and election tallying system.

R E P O R T

Over the past several months, staff of the Municipal Clerk's Department and the Director Administrative and Community Services have been studying the existing election system within the Municipality, and more specifically have examined the feasibility of an automated election system, similar to that used in nearly a thousand other municipal jurisdictions in North America. The system was used once before in Burnaby, in 1972.

There are of course a number of impediments to the introduction of such a system, not the least of which is the fact that existing legislation makes no provision for automated voting and vote tallying systems, with the exception of the Charter of the City of Vancouver, which does make such a provision.

In the current economic environment, however, staff in all areas of the Corporation have been searching for means of economizing in Municipal operations. Some of those economies can be realized in relatively short periods of time, while others such as this proposal rely on a "pay back" which stretches over a longer span of time.

Quite apart from the issue of costs, speed and accuracy are two of the major criteria by which one can judge the efficiency and effectiveness of an election system. Experience in many other jurisdictions has indicated that accuracy can be significantly improved, at a lower cost over the long term. Should the existing system be continued, costs in the years to come will rise as a result of the need for reorganizing the "manual" election system. With increasing numbers of voters, either the number of polling places or polling staff or both will have to be increased.

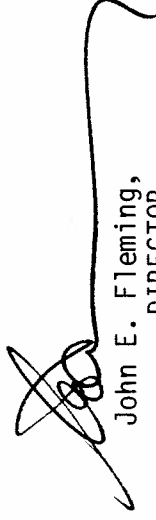
In reviewing the costs and benefits of such a system, a brief summary of our research was forwarded to 12 other municipalities within the lower mainland, at a staff level, with a request for an indication of possible interest from those jurisdictions. A copy of that overview provided to the other municipalities is attached for your information.

The response has been encouraging. Staff in at least six of the municipalities approached have responded favourably to the concept of automated voting procedures, based on the apparent increases in accuracy and potential long term cost savings that the implementation of automated elections would introduce. The information attachment circulated to those other jurisdictions includes a summary of the cost benefit calculations made for the District of Burnaby, indicating that the capital cost of acquiring the necessary equipment, program etcetera would be recovered in reduced election expenditures by the early 1990's. Were other municipalities to join in the concept, and to share the cost of acquiring such equipment, wherever possible, then the investment payback period would be shortened.

It should be pointed out, however, that the recent adoption by the U.B.C.M. of a resolution respecting three year terms included the words "...with all such tri-ennial elections being held on the same date every third year for all municipalities, regional districts and school districts". Such an amendment would decrease the cost savings seen on a wider scale; it would not detract from Burnaby's savings nor of course from the improvements in speed and accuracy.

It is clear that legislative amendments would be necessary in order to allow any municipal jurisdiction to utilize such a system. It is the opinion of staff that there is support in other jurisdictions for such an approach. What is now proposed is a more formal canvassing of other lower mainland municipalities, through their Councils, for an indication of support for a request to amend the legislation, and indeed to jointly enter into an automated system. (This would result in contact with Coquitlam, Delta, New Westminster, Port Coquitlam, Richmond, Surrey, Vancouver, West Vancouver and the City & District of North Vancouver.) It is noted that there may well be amendments to the legislation respecting municipal elections coming soon; both the Minister of Municipal Affairs and the Union of B. C. Municipalities have commented publicly recently on the subject of three year terms. With that information at hand, a more accurate assessment of the long term costs and benefits of the proposal can be made, and a further report prepared for Council's consideration. The goal of course would be to have such a system in place for the 1985 elections should the concept be adopted.

JEF:bp
Attach.



John E. Fleming,
DIRECTOR.

AUTOMATED ELECTION SYSTEM - AN OVERVIEW

PRESENT SYSTEM

Burnaby and other municipalities in the G.V.R.D. currently use a system that relies on paid staff to remain at polling places for long hours on election day. These particular workers conclude their responsibilities by counting the votes at the polling places after the polls are closed. Deputy Returning Officers then take the ballots to election headquarters at Municipal Hall where senior staff check and verify the results. The official count and verification often are usually not completed until well after midnight.

The primary concerns involving the present system involve the accuracy of the manual count and the salaries and wages that have to be paid to the many individuals who are hired to do the necessary work (Burnaby hired 440 persons for its election in 1981; this total is expected to slightly increase to approximately 441 in 1983). Another concern is the escalation of costs for elections (which in Burnaby is typified by an increase from \$94,087 in 1981 to a projected expenditure of \$134,830 in 1983).

VOTOMATIC ELECTION SYSTEM

The Votomatic Election system is probably the most advanced method of casting and tallying votes currently available. It was developed approximately 19 years ago by International Business Machines and is now used by 922 jurisdictions in 36 States in the United States of America, in 11 Ontario cities, and in Edmonton, Alberta.

The voting machine sold by Computer Election Systems is a hard plastic machine that is available in two models. The portable model ("Option 1") is 8" wide, 12" long, 2" thick and weighs 2 pounds. The self contained unit ("Option 2") is 19" wide, 22" long, 4" thick and weighs 18 pounds. When folded for transport, the self contained unit resembles an attache case, but when assembled for use it is a complete free standing polling booth with the Votomatic machine included. (A picture of the equipment is attached. A portable model is available for demonstration in the Enumeration Office of the Burnaby Municipal Clerk's Department.) Punch card ballots, resembling I.B.M. cards, are used by electors for voting.

How the Votomatic System works in the Borough of East York (population approximately 100,000 with 76,000 Registered electors)

The system is extremely easy to use. As voters enter the polling place, they are given a demonstration on the "Votomatic Vote Recorder". This demonstration will instruct them in the use of the unit in order that they may fully understand the recorder when in the voting booth. Following the demonstration, voters receive a punch card ballot and are directed to the voting booth.

When in the booth, a voter inserts his ballot card into the votomatic vote recorder and commences voting. This is accomplished by depressing a stylus in the hole opposite the name of his candidates. Upon completion of voting, the voter may verify his votes by comparing the number punched with those opposite the candidate on the ballot pages. He places his ballot card into a ballot envelope and leaves the voting booth.

The ballot is then handed to the Deputy Returning Officer who removes a stub and places the ballot in the ballot box. This procedure continues for each voter throughout the day.

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When the polls close at 8:00 p.m., the Deputy Returning Officer and Poll Clerk open the ballot box and remove all of the ballots. These are counted to ensure that they agree with the number of voters recorded in the poll book. The ballots are then placed into a "Transport Carrier" and sealed for immediate delivery to the Tabulation Centre in the Municipal Hall for computer counting.

Advantages of the Votomatic Election Systems

- Accuracy
100% accuracy is a hallmark of the system, and a recount, if one is necessary, is greatly simplified and expedited.
- Speed and Efficiency
Election staff is relieved of the exacting task of tallying ballots.
The election staff's duties are minimal after polls close. With this system their tasks are finished within one hour of the close instead of midnight or later as is the case with the present system.
(In East York's 1982 election, all ballots were counted, and the final return was made available, at 10:28 p.m.).

- Financial

Savings accrue from:

- Reduction in hours of work by election staff.
- No unused surplus ballots to destroy.
- Self contained models eliminate the need for polling booths.
- An agreement under which two or more municipalities might cooperatively participate in the purchase of the system.

(The budget for the election in East York last year was \$85,000; it was estimated that if the paper ballot system of voting had been used, the cost would have been \$150,000).

- Ease of Handling

The components require minimum storage space and can be easily transported to and from polling stations.

Analysis of Costs (based only on Burnaby's requirements)

The capital cost of implementing a Votomatic system in Burnaby is a one time cost for the acquisition of the Votomatic machines and ancillary equipment. The units are manufactured only in the United States and the Canadian Federal Government has exempted their purchase from all import duties.

The total initial (one time) capital expenditure to implement the Votomatic system would be:

	<u>Option 1</u>	<u>Option 2</u>
Major equipment items	\$83,536	\$143,689
Program	500	500
Ballots, etc.	17,534	17,534
Total Cost	<u>*\$101,570</u>	<u>\$161,723</u>

*Totals include all applicable taxes and the U.S. exchange rate.

NOTE: A cost sharing arrangement with one other municipality would reduce these capital costs by half.

There would be no cost for computer services because the Burnaby in-house computer (UNIVAC 90/30) already has a 80 column card reader which is required for the tabulations of votes.

Ongoing costs for each biennial election would be approximately \$3,655 for the purchase of ballots (\$3,155) and a program for the computer (\$500).

Savings (for Burnaby only)

The attached cost comparison chart projects the savings that would be expected to accrue over a period covering four civic elections.

Enabling Legislation

There is no existing legislation that provides for the use of voting machines in British Columbia. In 1972, legislation was enacted enabling Burnaby to use the voting machines on a trial basis for 1972 only.

An automated election system could not be used in 1985 in Burnaby, or for that matter anywhere in British Columbia, unless an appropriate amendment were made to the Municipal Act.

Conclusions

Burnaby has always kept its election staff to a minimum, and therefore only a very modest reduction, if any, could be expected from conversion to the Votomatic Election System. However, savings from other features of the system would enable Burnaby, by itself, to recover the one time capital cost over a period involving five civic elections, and sooner if Burnaby and another municipality were to cooperatively defray this cost on a mutually acceptable basis. A significant additional benefit of the automated system is the speed with which accurate election results can be tallied.

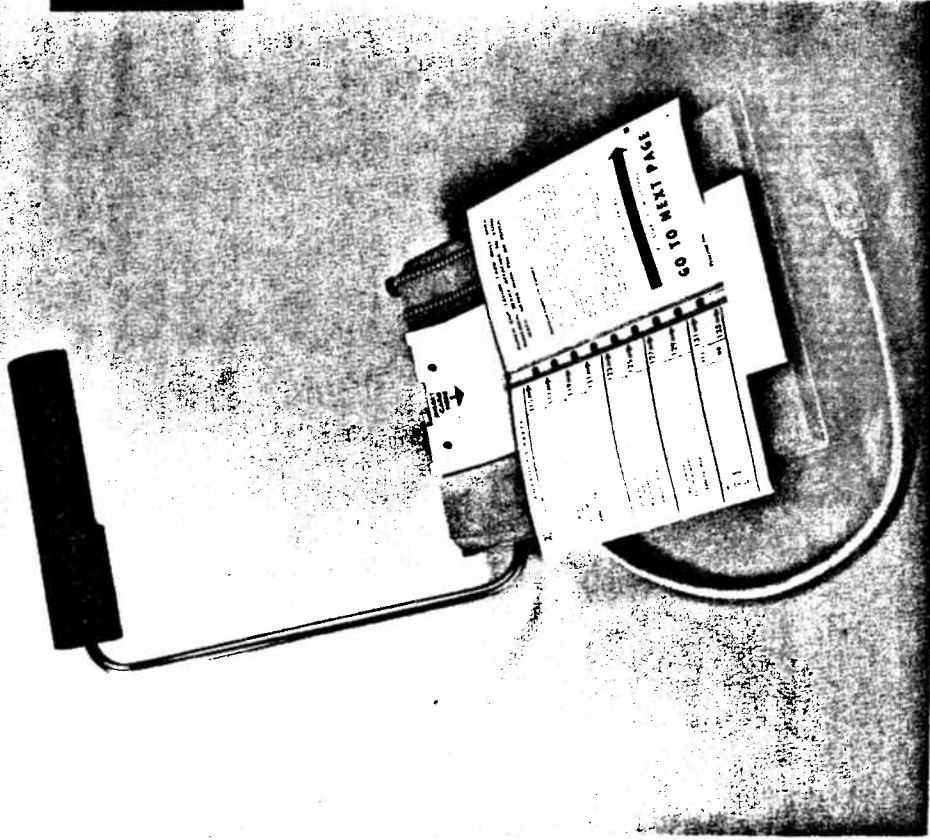
Implementation of an automated election system would require an amendment to the election provisions of the Municipal Act as there is no existing authority for such use at this time.

Of the two options, Option 2 is preferred because it is self contained, portable, easy to set up and disassemble, conserves storage space and affords privacy to citizens when voting. It is also preferable from an economic point of view in that greater saving can be realized from its use as compared to Option 1.

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COMPACT VOTE RECORDER

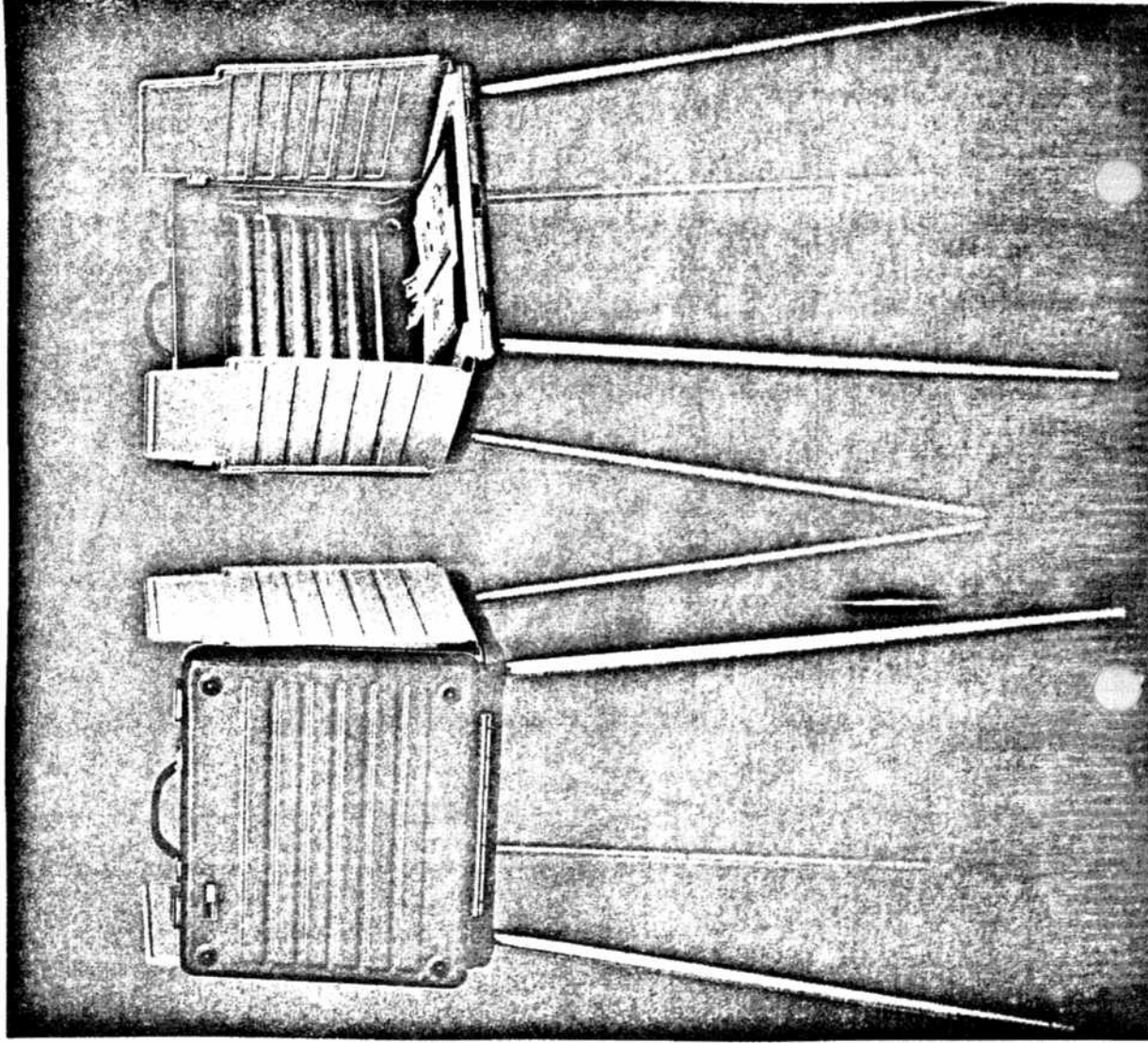
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OPTION 1

VOTOMATIC SELF-CONTAINED RECORDER



OPTION 2

COST COMPARISON CHART

YEAR	CURRENT PAPER BALLOT METHOD	PORTABLE VOTOMATIC "OPTION 1"	SAVINGS	SELF CONTAINED VOTOMATIC "OPTION 2"	SAVINGS
1983	Ballots \$ 6,867.00				
1985	Election staff \$ 56,410.00 Polling booths, \$ 8,349.00 ballot boxes \$ 7,913.00 Ballots, etc. \$ 72,672.00	Election staff \$ 45,680.00 Polling booths, \$ 8,349.00 ballot boxes \$ 3,155.00 Ballots, etc. \$ 57,184.00	\$ 15,488.00	Election staff \$ 45,680.00 D.R.O. transport, etc. \$ 875.00 Ballots, etc. \$ 3,155.00 \$ 49,710.00	\$ 22,962.00
1987	Election staff \$ 63,025.00 Polling booths, \$ 9,184.00 ballot boxes \$ 9,119.00 Ballots, etc. \$ 81,328.00	Election staff \$ 50,660.00 Polling booths, \$ 9,184.00 ballot boxes \$ 3,085.00 Ballots, etc. \$ 62,929.00	\$ 18,399.00	Election staff \$ 50,660.00 D.R.O. transport, etc. \$ 965.00 Ballots, etc. \$ 3,085.00 \$ 54,710.00	\$ 26,618.00
1989	Election staff \$ 69,870.00 Polling booths, \$ 10,102.00 ballot boxes \$ 10,510.00 Ballots, etc. \$ 90,482.00	Election staff \$ 55,760.00 Polling booths, \$ 10,102.00 ballot boxes \$ 3,105.00 Ballots, etc. \$ 68,967.00	\$ 21,515.00	Election staff \$ 55,760.00 D.R.O. transport, etc. \$ 1,060.00 Ballots, etc. \$ 3,105.00 \$ 59,925.00	\$ 30,557.00
1991	Election staff \$ 76,784.00 Polling booths, \$ 11,112.00 ballot boxes \$ 12,113.00 Ballots, etc. \$ 8,704.00 Construction of Poll booths, etc. \$ 108,713.00	Election staff \$ 60,845.00 Polling booths, \$ 11,112.00 ballot boxes \$ 3,125.00 Construction of Poll booths, etc. \$ 8,704.00 \$ 83,786.00	\$ 24,927.00	Election staff \$60,845.00 D.R.O. transport, etc. \$ 1,165.00 Ballots, etc. \$ 3,125.00 \$ 65,135.00	\$ 43,578.00
	FOUR ELECTIONS TOTAL \$353,195.00	\$272,866.00	\$ 80,329.00	\$229,480.00	\$123,715.00

NOTE:

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This cost comparison chart does not include the initial (one time) capital expenditure which would be required for the purchase of the equipment.

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A10. LIMITATION ON EXPENDITURES BY RECREATION COMMISSIONS

ENDORSED after amendment to read:
THEREFORE BE IT RESOLVED that the Provincial Government be requested to amend the Municipal Expenditure Restraint Act to apply only to the net expenditures for Recreation Commission functions.

A11. HYDRO RATE INCREASES

ENDORSED.

A12. B.C. HYDRO TAXED FOR REGIONAL HOSPITAL PURPOSES

ENDORSED.

A13. "ALDERMAN" TITLE CHANGE

NOT ENDORSED.

A14. TIME OFF TO VOTE - EMERGENCY SERVICE EMPLOYEES

NOT ENDORSED.

A15. COUNCIL TERM OF OFFICE

ENDORSED after amendment to read:
THEREFORE BE IT RESOLVED that the Government of the Province of British Columbia be requested to amend the Municipal Act and other legislation as appropriate to provide for a three year term of office for members of municipal Councils, regional district Boards and School Boards with all such tri-ennial elections being held on the same date every third year for all municipalities, regional districts and school districts.

A16. MUNICIPAL REFERENDA

(The fourth recital clause was ordered deleted)

ENDORSED.

A17. AREA IMPROVEMENT DISTRICTS

ENDORSED.

A18. CAPITAL PUNISHMENT - NATIONAL REFERENDUM

NOT ENDORSED.

A19. CAPITAL PUNISHMENT

ENDORSED.

A20. PORNOGRAPHY

ENDORSED after amendment to read:
THEREFORE BE IT RESOLVED that the Union of British Columbia Municipalities petition the Provincial Government to enforce Section 159 of the Criminal Code more forcefully, and further, that the Federal Government be requested to review legislation to supplement and reinforce Section 159 of the Criminal Code.

A21. PROHIBITING THE ADVERTISING OF LIQUOR IN B.C.

NOT ENDORSED.

A22. PROPERTY RIGHTS - CANADIAN CONSTITUTION

NOT ENDORSED.

A23. MANDATORY SUPERVISION

ENDORSED.

A24. YOUNG OFFENDERS ACT - BILL C-61

ENDORSED after amendment to read:
THEREFORE BE IT RESOLVED that the Union of B. C. Municipalities communicate directly with the Solicitor General of Canada, the Attorney General of British Columbia and the Canadian public describing the many concerns of the police community and those charged with the responsibility for the administration of justice, particularly in respect to the decision to adopt the uniform age of 18 years in the legislation and the lack of provision of adequate services for those under 12 years:

AND BE IT FURTHER RESOLVED that the Federal Government not proclaim the Young Offenders Act until the Federal Government participates in a cost sharing program with the municipalities and provinces of Canada to offset the increased financial burden imposed on them as a result of this change in Federal legislation.

A25. B.C. HUMAN RIGHTS CODE

ENDORSED.

A26. LAW-MAKING, FINANCIAL AND INSTITUTIONAL AUTONOMY FOR BRITISH COLUMBIA MUNICIPALITIES

ENDORSED.

A27. PUBLIC HEARING NOTICE REQUIREMENTS

ENDORSED.

A28. AGRICULTURAL LAND RESERVE FINE-TUNING

ENDORSED.

A29. B.C. AGRICULTURAL LAND COMMISSION

NOT DRAWN BY SPONSOR.