REPORT
1994 JULY 25

CITY OF BURNABY

TO: MAYOR AND COUNCIL

FROM: EXECUTIVE COMMITTEE OF COUNCIL

SUBJECT: ACQUISITION OF AUTOMATED VOTE COUNTING EQUIPMENT

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RECOMMENDATIONS:

1. THAT a purchase order be awarded to Business Records Corporation for the supply and delivery of 42 automated vote counting machines and associated equipment.

2. THAT a bylaw to amend the Capital Expenditure Program Bylaw 1994 to provide for the expenditures associated with the automated vote counting machines be prepared.

3. THAT a bylaw to appropriate $455,000 from capital reserves to fund the purchase of automated vote counting machines be prepared.

4. THAT staff develop suitable pre and post election audit procedures which will be subject to a future report to Council.

REPORT

On 1994 May 30 Council received a report from the City Manager outlining a proposal for the purchase of automated vote counting equipment for use in local government elections. A copy of that report is attached as Appendix "A" for Council's information.

Council referred the proposal to the Executive Committee for more detailed study. At the Executive Committee meeting of 1994 July 11 the Committee met with elections staff to discuss the report.

The Committee presented a variety of questions and concerns with respect to the financial benefits of the system and the need for an audit program which would be conducted both prior to and after the election and be open to all candidates and/or their representatives.

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- DIRECTOR ADMIN. & COMM. SERVICES
- DIRECTOR FINANCE
- CITY CLERK

It was agreed that local government elections are becoming more complicated and the need to obtain fast, accurate results is becoming extremely difficult using a manual system.

As a result the Committee is requesting Council approve the purchase of the Eagle OPTECH-III system with development of appropriate audit procedures. These procedures will be the subject of a future report to Council at which time Council will have the opportunity to contribute to the development of the audit process.

Respectfully submitted,

Councillor L. Rankin,
CHAIR

Councillor D. Corrigan,
Member

Councillor C. Redman
Member

APPENDIX 'A'

THE CITY OF BURNABY

TO: City Manager 1994 May 18

FROM: City Clerk

SUBJECT: Acquisition of Vote Counting Equipment

PURPOSE: The purpose of this report is to provide Council with a detailed proposal for the purchase of automated vote counting equipment for use by the City of Burnaby.

RECOMMENDATION:

1. THAT a purchase order be awarded to Business Records Corporation for the supply and delivery of 42 automated vote counting machines and associated equipment as detailed in this report.

2. THAT a bylaw to amend the Capital Expenditure Program Bylaw 1994 to provide for the expenditures associated with the automated vote counting machines be prepared.

3. THAT a bylaw to appropriate $455,000 from capital reserves to fund the purchase of automated vote counting machines be prepared.

REPORT

BACKGROUND:

In 1983 October the City Manager submitted a report to Council recommending the Provincial Government be requested to consider legislative amendments which would allow municipal governments to utilize automated voting equipment for local government elections.

This request came forward because it was obvious even then that the manual vote count was slow, had the potential for significant inaccuracies, disenfranchised many voters who unknowingly spoiled their ballots, and was becoming more costly with each election.

In 1993 the necessary legislative amendments became reality and cities such as Richmond, Surrey, Delta, Langley and Saanich acquired the Optech III equipment for the 1993 election. It should be noted that the City of Vancouver, through

the Vancouver Charter has been using automated equipment for many years and is now looking for a means to upgrade their old equipment with the Optech III system. Vote counting equipment is also used extensively throughout eastern Canada and across the United States.

1. THE NEED FOR VOTE COUNTING EQUIPMENT:

Technological development in the business of local government has made great strides in recent years. In Burnaby we use automated systems for our Bike Registration System, Corporate Cash System, Correspondence Tracking System, Dog Tag System, Engineering Contracts system, Electronic Cash, Fire Inspections, Financial Statements, General Accounting, Health Inspections, Human Resources, Health Water Quality Local Improvements, Municipal Election System, Public Accounts, Payroll, Permits, Program Registration, Property Tax, Stores Inventory, Mapping, Trade Licences and Voter Registration to name a few. Many of these systems are considered essential to the efficient and cost effective operation of the City, yet when it comes to determining the results of an election to public office, we rely on a manual system which utilizes several hundred staff working extremely long hours under very stressful conditions to determine the election result.

Burnaby is a City of approximately 160,000 people and growing; with each election three years apart, it only stands to reason that each future election will be only more complicated than the last. We cannot and should not rely on low voter turnout to ensure an accurate accounting of the election result. We should be prepared to efficiently accommodate as many voters as possible, work diligently to encourage voter turnout and be able to provide candidates with early, accurate results. A slow count which is not official for several days, and then subject to recount is not of benefit to either candidates, election staff or the taxpayer.

Technology is now available which will allow us to accommodate larger voter turnouts, virtually eliminate the disenfranchised vote and provide early accurate results for a reasonable cost.

2. ADVANTAGES OF VOTE COUNTING EQUIPMENT:

A. ELIMINATION OF ACCIDENTAL VOTER DISENFRANCHISEMENT

A manual vote count system results in many voters having their ballots rejected without even realizing they have spoiled their ballot. The most common ballot rejections are for voting for more than the permitted number of candidates. On a ballot containing 20+ names, where you are permitted to vote for 8 candidates, it is easy to mistakenly vote for 9 or 10, putting the ballot in the ballot box and never realizing that your vote will not count.

Although there is signage in each voting booth advising voters that they may obtain a new ballot if they spoil their first one, for whatever reason, voters seem reluctant to ask for a new ballot and proceed to try to erase marks or scribble them out or make other marks which invariably invalidate their vote.

Both of these common problems would be eliminated with automated voting machines. Any ballots containing too many or ineligible marks would be rejected and the voter would have the option of obtaining a new ballot without having to make the initial request.

The following table contains ballot rejection statistics for the 1987, 1990 and 1993 local government elections:

YEAR	MAYOR	CLLR.	TRUSTEE	REF #1	REF #2
1987	404	649	1,178	963	1,074
1990	551	1,262	1,537	2,269	N/A
1993	219	643	935	1,465	N/A

As you can see, these are significant numbers which may or may not have had the potential to alter the outcome of the election.

B. ACCURACY AND RELIABILITY

There are many areas in which manual vote counting is subject to error and interpretation:

(a) what constitutes an acceptable mark on a ballot (anything which deviates from that described in legislation is rejected);

(b) vote subtotals are carried forward from tally sheet to tally sheet which must then be checked and rechecked by other staff at Election Headquarters;

(c) the transposing of figures at any one of the many stages in the hand counting process;

(d) distraction during the vote counting process by other election staff who are calling out the same candidate names in other areas of the same room;

(e) disruptive activity by other persons permitted in the voting place during the count.

Each of these problems is compounded by the lateness of the hour, stress, fatigue and the pressure to return accurate results as quickly as possible.

By contrast, the electronic vote counting system which is recommended in this report has an almost negligible error factor (reputed to be one in one million). In addition, the official results will be available for the entire City, for all elected offices, within a few hours of the closing of the polls - regardless of the number of offices being filled, the number of candidates per office, the number of referenda being conducted, or the voter turnout in the election.

C. AVAILABILITY OF STAFF

As our population grows and accordingly the number of voting divisions increases, the availability of experienced election staff becomes a serious problem, particularly when all British Columbia local governments, including the City of Vancouver, are legislated to hold their elections on the same day. This creates a two-fold problem; one, the number of available, experienced Presiding Election Officials is limited and two, it creates a "bidding war" which drives up labor costs, particularly when a PEO can choose between the same amount of money for either a 14 hour day without a count process or an 18 hour day which includes manual counting responsibilities.

D. ELIMINATION OF A RECOUNT

With the recent changes to the Municipal Act and the requirement to now have a final result by 4:00 p.m. of the Wednesday following the election, the ability to have a Returning Officer's Recount in a City the size of Burnaby is extremely limited. In 1993 Burnaby experienced, for the first time, a judicial recount. This was a time consuming, expensive process which created alot of stress, not only for the candidates, but for the election staff and judiciary who were charting new territory, under new legislation throughout the entire process.

Under the previous legislation, the Returning Officer could have ordered a recount, brought in the staff, conducted the recount and declared an official result. With a manual count, there is very little time to confirm the election day results before the Wednesday deadline, let alone conduct a recount. As a result, we are now involved in a time consuming process of swearing evidence before a Judge, obtaining court authority for a recount, arranging for a Judge and court staff to attend, notifying candidates and hiring counting teams and data entry personnel. In actual fact, the Act calls for the ballots and counting teams to be transported to the courthouse for the recount; we were very fortunate that the Judge agreed it would be much easier and more practical to hold the recount at City Hall.

Given the current time constraints in the legislation, Burnaby's future growth and the limitations of a manual count, a judicial recount should not be considered an anomaly, but more a trend toward becoming the "norm" in future years if we do not proceed with automated vote counting.

E. OTHER ADVANTAGES

(a) Easier pre-election preparation - hundreds of vote tally sheets, special envelopes, ballot paper accounts, ballot boxes, keys, locks, seals and other such election supplies for each voting station are either not required or their numbers are significantly reduced.

(b) The need to obtain volunteer scrutineers to spend long hours locked in the voting station to scrutinize the counting process is eliminated, although scrutineers would certainly be welcome to witness removal of the memory packs from the machines.

(c) The need to print several ballots is eliminated as one single comprehensive ballot is all that is required. A single ballot system also makes it more streamlined for registering voters and distribution of ballots.

3. CHOICE OF MANUFACTURER/SUPPLIER

Technological advances in the automated vote counting field were rapid in the 1960s, and this resulted in the development and use of various types of systems including punch cards, etc., many of which are still in use. In 1983 Burnaby staff conducted an indepth review of the punch card system which was considered "state of the art" at that time, but without the appropriate legislative support, were unable to do more than study the system.

In about the last six years it is apparent that one particular system using an "optical-scan" technique is favoured above all others. The City of Vancouver monitored these changes over a long period of time and after extensive research, purchased "optical-scan" equipment from an American manufacturer called Business Records Corporation (BRC) in 1989. BRC is currently the leading supplier of this equipment in the United States and Canada, having supplied approximately two-thirds of all the vote counting equipment being used in North America. Their equipment is used in many American states, some exclusively. Also, BRC supplies their equipment to many jurisdictions in Canada, including Surrey, Richmond, Delta, Langley and Saanich. In discussing the use of BRC equipment with election staff from jurisdictions outside the lower mainland, there were no complaints received whatsoever; everyone is pleased with the choice of the OPTECH equipment and with BRC as the supplier.

Attached as Appendix One to this report is a proposal from BRC which provides detailed information on the vendor, the equipment, training programs, and references. With respect to references, those denoted by a "star" have been contacted individually by the Deputy City Clerk.

4. FINANCING

Capital Costs

The estimated cost of the 42 automated vote counting machines is $391,000.

The election results display system with TV link capability and hard copy printer is approximately $31,000. Burnaby also requires 125 polling booths that are compatible with the automated system and cost about $31,000.

The total capital cost of the automated vote counting system is estimated to be $453,000; with a small contingency the funding required will be $455,000.

A discount equating to about $26,500 may be obtained if one hundred or more machines are purchased at one time. Staff are exploring the possibility of purchasing in conjunction with other cities in the Province to secure the saving from the volume discount.

Sufficient Capital Reserves are available to fund this project, however this acquisition was not provided for in the 1994 - 1998 Capital Program; therefore a bylaw to amend the capital program is required along with a bylaw to appropriate the funds from the capital reserves.

Operating Costs

A two year hardware maintenance agreement for all forty two of the machiens may be purchased for $33,100 plus travel expenses of the maintenance technician. Staff are exploring options to minimize these costs. An annual software licence fee for the Automatic Election Returns Operation component is required at a cost of $4,100. If the purchase of the equipment is approved the above costs will be provided for in the 1995 Operating Budget.

5. CONCLUSION

The use of automated vote counting equipment is virtually the "norm" in the United States and is becoming more and more prevalent in Canada. As our population increases, the number of ballots per election increase (in 1996 we could also be looking at a Regional Health Board election and elected Regional District directors) and costs increase proportionately, we are going to be faced with the need for automated voting, not as a luxury, but as a necessity.

The Eagle equipment comes highly recommended both from a staff/operational viewpoint and voter acceptance. One of the interesting features of the Eagle which has strong appeal to voters is the electronic sound emitted when a ballot is accepted by the counter. It lets the voter know that their vote has been counted and confirms their participation in the election process.

For candidates, continued delays in obtaining election results, particularly when the other major centers in the lower mainland have results before 9:30 p.m. on election night, the possibility of human error resulting in an inaccurate count, the delay while tallys are reviewed to determine "official" results, the potential for a judicial recount and a further delay of a week to 10 days before final results are known could all be eliminated with automated voting equipment.

By pursuing purchase of the election equipment well in advance of the next local government election, we would have more time to tour seniors centers and set up equipment in shopping malls to allow voters to become more familiar with automated voting. BRC has also entered into discussion with other local governments with respect to equipment purchases and if an order of 100 machines can be compiled, there would be a further cost saving to the City.

If Council members wish to see a "live action" election using the "optical-scan" equipment, arrangements can be made to view a forthcoming election in San Mateo, California. As an alternative, two Council members from the District of Delta (Bob Mountford and Bruce McDonald) who witnessed the "optical-scan" equipment in an election in Pierce County, Washington early in 1993 as well as their own 1993 election, have expressed a willingness to meet with Council to discuss their experiences with automated voting.

Based on the foregoing information, staff are now prepared to recommend to Council to pursue purchase of the Optech III-P Eagle automated voting system for use in forthcoming Burnaby elections. Enclosed under separate cover a further information package on BRC and its systems is provided for the information of Council.

Respectfully submitted,

C. A. Turpin,
City Clerk

DRC

cc. Director Finance