

City of Mississauga
Corporate Report



<p>Date: January 17, 2022</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer</p>	<p>Meeting date: February 23, 2022</p>

Subject

2022 Municipal Election – Use of Alternative Voting and Vote Counting Methods

Recommendation

1. That in accordance with section 42 of the Municipal Elections Act, 1996, as amended, a By-law be enacted on or before May 1, 2022 for the 2022 City of Mississauga municipal election to authorize; the use of ballot scanning tabulators for the purposes of vote counting, to be supplied by Election Systems and Software and depending on availability, the use of the ExpressVote Universal Voting System or AutoMark Voter Assist Terminals for the purposes of accessible voting/marketing ballots on advance polling days, to be supplied by Election Systems and Software.
2. That General Committee provide direction to the City Clerk regarding the implementation of mail-in ballots for the 2022 City of Mississauga Municipal Election and direction on engaging Comprint Systems Incorporated, doing business as DataFix, to support the implementation of the program, should mail-in ballots be authorized for the 2022 City of Mississauga Municipal Election as outlined in the corporate report dated January 17, 2022 from the Commissioner of Corporate Services and Chief Financial Officer entitled “2022 Municipal Election – Use of Alternative Voting and Vote Counting Methods”.

Executive Summary

- Section 42(1) of the Municipal Election Act, 1996 as amended (the Act) gives municipal councils the authority to authorize the use of voting and vote counting equipment and alternative voting methods during an election
- It is recommended that a By-law be enacted in accordance with section 42 of the Act to authorize the use of vote tabulators and the Universal ExpressVote Voting System (ExpressVote units) for the 2022 City of Mississauga municipal election (the 2022 municipal election).

- This report also provides information on the implementation of mail-in ballots and requests that General Committee provide direction regarding its implementation.

Background

In preparation for the 2022 municipal election, a review of the vote counting and alternative voting methods used in previous elections has been conducted to determine which approaches should continue and which should change. This report makes recommendations surrounding:

- The continued use of vote tabulators on all voting days
- The use of ExpressVotes units on advance polling days or the use of AutoMark Voter Assist Terminals

This report also discusses mail-in ballots including the estimated costs and advises on the implications of Election Day falling on Diwali.

Comments

Vote Tabulators

Since 2000, the City of Mississauga has worked with ES&S to use vote counting equipment to efficiently tabulate and electronically transmit election results. To do this, the City has primarily used M100 Optical Scan Units (M100) of which the City currently owns 201. M100s scan and tabulate results and then transmit results via a fax line. To increase the efficiency and speed of results transmission, it is recommended that Precinct Scanner and Tabulator - DS200s (DS200) be rented which will allow for wireless transmission.

Funding has already been identified in the elections operating budget and in the Wireless Transmission of Results project, project number 21643 however, as per the Act, Council must authorize the use of any vote counting equipment.

ES&S has advised that due to COVID-19 pandemic related delays and increased demand, supply may be limited. In the event that the City is unable to obtain the number of DS200s required, it is recommended that the M100s be used as in past elections.

ExpressVote Universal Voting Systems

In previous elections, the City has used Voter Assist Terminals (VAT) to provide accessible voting for persons who require assistance marking their ballot. VATs were deployed to every voting location on advance polling days. Traditional ballots were fed into the VAT and the voter electronically marked their ballot using a touch screen, key pad, or other accessible devices. The VAT marked the ballot with the voter's choices. These electronic markings were indistinguishable from ballot markings that were made by hand.

Like a VAT, ExpressVote units allow voters to electronically and independently mark their ballot using a variety of accessible tools, including a touch screen. However, unlike VATs,

ExpressVotes units include ballot on demand printers and are recommended to be used for all voters on advance poll days.

The process for the ExpressVote system is:

- When the election worker determines that a voter is eligible to vote the worker will use the ExpressVote software to print a blank ballot card with a code indicating the ballot type applicable to the voter
- The voter will insert the blank ballot card into the ExpressVote
- The ExpressVote will display the appropriate ballot type/options based on the code
- The voter will use the touch screen or other accessible devices to mark their ballot
- The ExpressVote will print the voter's choices on the ballot card
- The ballot card will be inserted into a vote-counting tabulator

Elections staff presented the ExpressVote to the Accessibility Advisory Committee and the feedback provided was positive. Further information about ExpressVote units is included in the ES&S ExpressVote Universal Voting System document attached as Appendix 1 to this report and the ES&S Security Bulletin – ExpressVote Universal System as a Marker document attached as Appendix 2.

Due to cost and resourcing considerations, the Elections Office recommends the use of ExpressVote units on advance polling days for all voters. This will also provide voters with multiple days on which to access the technology. The benefits of the ExpressVote system are:

- Individuals who require assistance have access to a variety of tools which will allow them to independently mark their ballot
- Election workers no longer have to manage 55 ballot styles on advance polling days because ExpressVote units have ballot on demand printers

Staff estimate the cost for implementing ExpressVote units on advance polling days as \$115,825. A detailed cost breakdown can be found in the Financial Impact section of this report. ES&S has advised that due to pandemic related delays and increased demand, supply may be limited. In the event that the City is unable to obtain the number of ExpressVote units required, it is recommended that the City use VATs on advance polling days as in past elections.

Mail-in Ballots

Considering the COVID-19 pandemic and the various provincial restrictions and public health protocols in place, Elections staff have conducted research into the implementation of mail-in ballots for the 2022 election. Staff are seeking direction on whether to implement this program for the upcoming election. Staff estimate that the cost of facilitating mail-in ballots would be just under \$400,000. A detailed cost breakdown can be found in the Financial Impact section of this report. One of the challenges related to determining the cost of implementing mail-in ballots is estimating the number of voters that may opt into the program. To help with estimates, staff

have looked at the percentage of voters that have used mail-in ballot programs offered by other municipalities (see below).

City of Vancouver 2018 General Election	
Total Electoral Population	448,322
Total Ballots Cast	176,450
# of Mail-in Ballots Cast	1,237 (0.28%* of the total electoral population or 0.70%* of the voter turnout)

City of Ottawa 2020 By-election (Cumberland)	
Total Electoral Population	36,329
Total Ballots Cast	8,708
# of Mail-in Ballots Cast	1,234 (3.4%* of the total electoral population or 14%* of the voter turnout)

City of Regina 2020 General Election	
Total Electoral Population	195,374
Total Ballots Cast	41,527
# of Mail-in Ballots Cast	4,970 (2.5%* of the total electoral population or 11.97%* of the voter turnout)

City of Toronto 2021 By-election (Scarborough-Agincourt)	
Total Electoral Population	65,552
Total Ballots Cast	12,102
# of Mail-in Ballots Cast	3,515 (5.4%* of the total electoral population or 29.04%* of the voter turnout)

*Numbers rounded

In addition to the above, statistics related to the 2021 Federal Election mail-in ballot program are included below.

Elections Canada – 2021 General Election	
Total Electoral Population	27,366,297
Total Ballots Cast	17,034,243
# of Mail-in kits returned	1,078,189 (3.94%* of the total electoral population or 6.33%* of the voter turnout)

*Numbers rounded

The chart below shows:

- the number of eligible electors in each City of Mississauga federal riding during the 2021 Federal Election

- the number of electors who requested a mail-in ballot kit
- the percentage of the mail-in ballot kits that were returned by voters in the City of Mississauga

	Total # of eligible electors	# of electors that requested a mail-in ballot	# of ballot kits returned
Mississauga Centre	85,044	3,105 or 4%*	2,562 or 83%*
Mississauga East-Cooksville	82,603	3,597 or 4%*	2,841 or 79%*
Mississauga-Erin Mills	87,176	5,058 or 6%*	3,704 or 73%*
Mississauga-Lakeshore	88,977	5,348 or 6%*	4,586 or 86%*
Mississauga-Malton	77,095	2,858 or 4%*	2,019 or 71%*
Mississauga-Streetsville	85,976	3,771 or 4%*	1,521 or 40%*

*Numbers rounded

Staff have considered the information above, and for the purpose of projecting potential costs have estimated 10% of the highest voter turnout in Mississauga since 2000 as a basis for planning. This translates into approximately 16,000 voters who may choose to opt into the program.

The following outlines the proposed and/or anticipated general steps voters and staff could take to facilitate the mail-in ballot program. Please note these steps are subject to change at the City Clerk's discretion.

Mail-in Ballot Application Process

- Between September 1 (after the City Clerk receives the Voters' List from the Municipal Property Assessment Corporation) and September 16, 2022, voters will have the opportunity to apply online to participate in the mail-in ballot program
- Applicants will be required to complete the application and upload a scan of their identification
- Staff will vet the identification uploaded by the voter to ensure that it matches the information on the application
- Staff will ensure the voter is on the Voters' List; if the voter is not on the Voters' List, the voter will be required to complete an Application for Revision to the Voters' List
- Eligible voters will be sent the mail-in ballot kit; the voter will not be marked as having voted on the Voters' List unless the mail-in ballot is returned, however it will be noted that the voter was sent a mail-in ballot kit

- The mail-in ballot kit will include the following:
 - A declaration of identity
 - An acknowledgment of the requirements to participate in the mail-in ballot program
 - A blank ballot
 - An unmarked secrecy envelope (to place the ballot in once it is marked with the voter's choices)
 - An outer return envelope (postage pre-paid)
 - An information sheet
 - Any other declarations and/or items the City Clerk deems necessary

Returning the marked ballot

- The voter will be required to send the outer return envelope to the Elections Office
- The outer return envelope will include:
 - The complete and signed declaration of identity
 - The complete and signed acknowledgment of the requirements to participate in the mail-in ballot program
 - The marked ballot sealed within the unmarked secrecy envelope

Accepting the marked ballot

- Staff will receive the outer return envelope
- On days identified by the Clerk prior to Election Day, the kits will be opened so the mail-in ballots can be inserted into the tabulator; results will not be produced until 8 pm on Election Day
- The outer return envelope will be opened and the declaration of identity and acknowledgment of the requirements to participate in the mail-in ballot program will be removed and vetted; if accepted, the voter will be struck off the Voters' List and the documents noted above filed
- The unmarked sealed envelope with the marked ballot inside will be removed from the outer return envelope and separated from all other paperwork so that the ballot cannot be connected with any identifying information

To help facilitate the mail-in ballot program, staff recommend engaging the City's Election database management vendor DataFix to support the mail-in ballot program. DataFix would be responsible for:

- Assisting in the management of voter information related to mail-in ballots
- Compiling the out-going mail-in ballot kits, including printing of letters and ballots, once the mail-in ballot applications have been vetted by Elections staff
- Assisting with the tracking of mail-in ballot kits

The cost of using DataFix's services is included in Financial Impact section of this report.

The benefit of a mail-in ballot program is that voters will have an alternative way to cast their ballot without having to go to a voting location. The total estimated cost of almost \$400,000 will cover:

- software
- vendor support
- a high speed scanner to quickly process ballots
- mail-in ballot kits including printing; kits must be purchased ahead of time prior to voters being able to apply to the program
- postage
- staffing
- communications; and
- a contingency

While staff are seeking direction regarding the implementation of mail-in ballots, it is important to note that the program could be effected by a pandemic related paper shortage.

Major Holiday on Election Day

Section 5 of the Act prescribes Election Day as the fourth Monday of October. In 2022, Diwali also falls on this day. Staff have contacted the Province and at this point changing Election Day does not seem to be under consideration. It is important to note that because the Provincial Government establishes Election Day, the City Clerk does not have the authority to change it.

With the above in mind, the City's Communications team has incorporated outreach into the Elections Communications Plan to inform electors and provide information on alternative voting days.

Financial Impact

Tabulators and AutoMark Voter Assist Terminals

The cost of using vote-counting tabulators and VATs is included in the Elections operating budget, cost center 22450 and requires no additional funding. This report is requesting that the City Clerk be authorized to use tabulators for the purposes of counting votes and VATs should ExpressVote units be unavailable.

ExpressVote Units

The cost of using ExpressVote units is estimated as follows:

Expense Type	Cost*
Equipment and software	\$121,325
Ballot cards	\$9,000
Communication costs	\$5,500
Total Cost	\$135,825
Minus the cost of VATs which are already budgeted for	-\$20,000
Total Requested Amount	\$115,825

**Numbers rounded*

It is requested that General Committee recommend adding \$115,825 to the Elections operating budget, cost center 22450 to finance the implementation of ExpressVote units on advance polling days.

Mail-in Ballots

An estimate for the implementation of a mail-in ballot program is provided below. For the purpose of developing a potential cost, staff have estimated a 10% opt in rate which is about 16,000 voters. Costs may be impacted by the number of voters that opt in to the program.

Estimated costs are as follows:

Expense Type	Cost*
DataFix application and support	\$18,000
High speed scanner and tabulator	\$27,410
Mail-in ballot kits for voters (16,000 estimated voters at \$4 per kit). Kits must be purchased from DataFix before voters apply to the program.	\$64,000
Postage (outgoing and return based on January 2022 postage rates)	\$30,240
Canada Post Administration fee	\$840
IT Business Analyst (4 months) - to implement and manage IT processes related to the program	\$38,000
Election Officer (7 months) – to implement and manage administrative procedures related to the program	\$48,500
4 Elections Assistants (4 months) – to assist with implementing and managing the administrative procedures related to the program	\$85,600
Communications to promote new options for voters and to communicate the process and requirements for participation	\$43,140
Contingency (approximately 10%)	\$35,573
Total	\$391,303

*Numbers rounded

Staff request that General Committee provide direction to the City Clerk regarding the implementation of mail-in ballots for the 2022 municipal election. If a mail-in ballot program is implemented it is requested that \$391,303 be added to the Elections operating budget, cost center 22450 to finance the program.

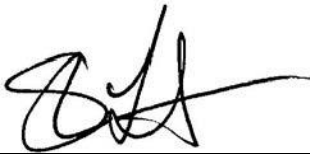
Conclusion

The Elections Office recommends the continued use of vote tabulating technology for the 2022 election. Staff also recommend the implementation of ExpressVote units or VATs on advance polling days. It is also requested that General Committee provide direction to the City Clerk regarding the implementation of mail-in ballots for the 2022 municipal election.

Attachments

Appendix 1: ExpressVote Universal Voting System

Appendix 2: ExpressVote Universal System as a Marker



Shari Lichterman, CPA, CMA, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Gus Mangos, Elections Officer



ExpressVote®

Universal Voting System

Avoids Overvoting

The intuitive interface also alerts voters of ballot exceptions, like undervotes.

Easier-to-Read Ballots

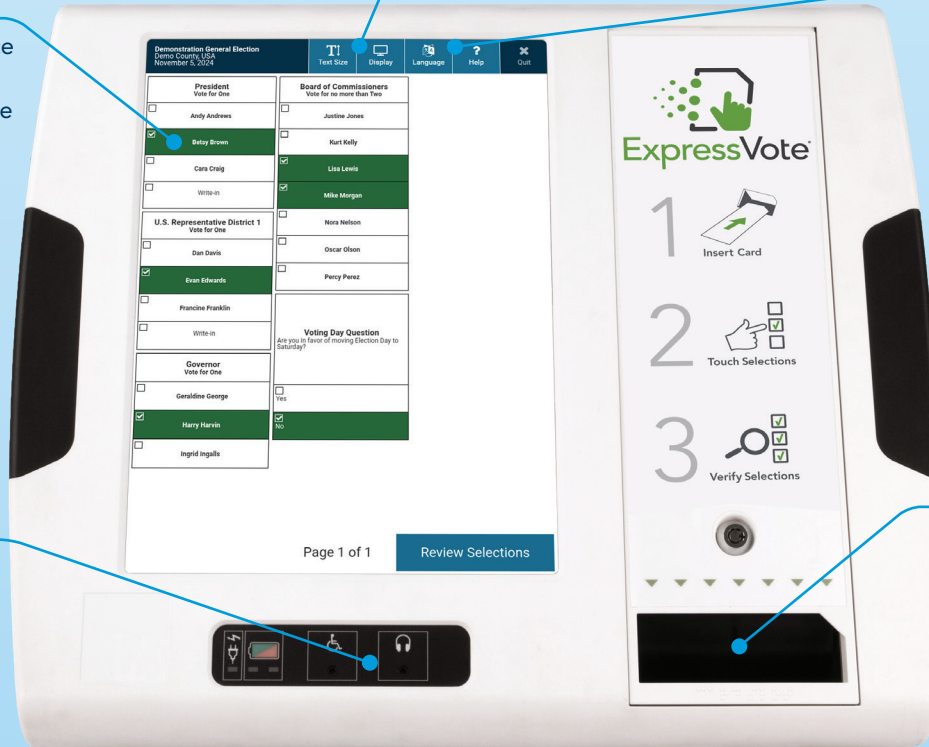
Visual aids include high contrast and zoom functionality.

Multilingual

Supports any language in audio and 12+ in text.

ADA-Friendly

The front access panel provides ports for headphones and accessibility devices.



Simple Activation

The voter inserts a card to activate the voting session. After voting is complete, the vote summary card is dispensed for voter review.

A Versatile Solution

- Vote Centers
- Precinct Poll Places
- Early Voting
- Election Day

Together with the ExpressPoll® electronic pollbook and ExpressVote® Printer, you can quickly check in voters and serve up to 15,000 different ballot styles. This means no more picking and pulling ballots or wasted pre-printed stock — voters get in and out faster.



EASY ELECTION MANAGEMENT



- Reduces costs by eliminating the need for printing and storing traditional pre-printed paper ballots.
- Simplifies post-election management because there are no unclear marks to adjudicate. Voters are prompted in real-time to address over/undervotes.
- Produces a voter-verifiable paper record that is scanned, tabulated and saved for auditing purposes.
- Prevents poll workers from giving voters the wrong ballot style since they don't need to pick and pull ballots.
- Maximizes your investment as it can be used many ways — in precincts and vote centers during early voting and on Election Day.

POLL WORKERS LOVE IT



- Shorter Election Day for poll workers — six steps to open and two to close so they don't need to arrive as early or stay as late.
- Small, lightweight and easy to move and store.
- No ink or to replace on Election Day.



Switching to ExpressVote in 2016 and transitioning to vote centers in 2019 — it's been an easy transition for staff and poll workers."

"Marion County voters can vote faster, easier and anywhere."

MYLA A. ELDRIDGE
COUNTY CLERK, MARION COUNTY, INDIANA

A GREAT EXPERIENCE FOR VOTERS



- Enables all eligible voters to make their selections privately and independently. It is a fully compliant Americans with Disabilities Act (ADA) voting solution.
- Improves voter confidence because the interface prompts them if they've under/overvoted a contest.
- Provides voters the opportunity to review their selections twice before tabulation — on the summary screen and on the printed card.

SECURITY YOU CAN COUNT ON®



The ExpressVote offers so many security features, we couldn't include them all here. To learn more about the great lengths we go to protect our systems and data, visit [essvote.com/feature/security](https://www.essvote.com/feature/security).

SPECIFICATIONS

Ballot style capacity: Up to 15,000

Languages supported: Any language in audio and 12+ in text

Assistive devices supported: Headphones, audio-tactile keypad, rocker switch device, sip-and-puff device

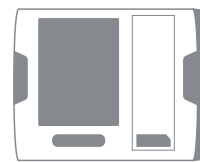
Dimensions (H x W x D):



Operational - 16" x 20" x 17"

Weight: 25 pounds

Battery backup: 2-4 hours



Stored - 17" x 20" x 5"



SECURITY BULLETIN

ExpressVote®

Universal Voting System as a Marker

The purpose-built, paper-based ExpressVote Universal Voting System maintains the highest levels of physical and digital security controls. It provides voter confidence with onscreen, printed and audio playback options for vote selection verification. The unit's security features control access to critical components of the system.



PHYSICAL AND SYSTEM ACCESS CONTROLS

- The unit's hardware is designed to protect against tampering, including during system storage, transport and voting.
- The ExpressVote uses physical and system access controls including lockable doors, tamper-evident seals and access codes.
- The operating software provides security access controls to limit or detect access to critical system components, guarding against system integrity loss and availability.
- Only system certified components are recognized by the ExpressVote.



SYSTEM APPLICATION CONTROLS

- System functions are only executable during election events, in the manner and order intended by election officials performing their duties.
- The system performs a self-diagnostic test at startup, which provides status and alerts election officials of errors.



ENCRYPTION, HASH VALIDATION AND DIGITAL SIGNATURES

- Election programming is stored on the system as an encrypted and digitally signed data bundle. Each time data is used a hash validation is performed to ensure data integrity remains intact.



AUDIT LOGS

- The ExpressVote generates a detailed audit log of all actions and events that have occurred on the unit, which can be exported for review and analysis.
- Every action and event, including access attempts, access of system functions and errors, is logged and timestamped.
- The audit log file is digitally signed each time an event is written to it.

ExpressVote Auditing



PAPER BALLOT CARD

- Provides a verifiable paper vote record for every voter, containing both human-readable selections and corresponding machine-readable barcodes
- Can be read by any ExpressVote unit before tabulation to verify the voter's intent was captured accurately

IS THE PAPER FROM THE EXPRESSVOTE AUDITABLE?

Yes. Just as hand-marked paper ballots can be inspected or audited by hand or by machine, so can ballot cards. A ballot card contains the same data as a hand-marked ballot, displayed in different ways. During a post-election hand-count audit, selected candidate names are used to count the vote.

ES&S fully supports the use of paper ballots and post-election audits to ensure accuracy and increase confidence in our country's election process. ES&S views paper records as critical for auditing. A physical paper record of the selected candidate names provides the means to a statistically valid post-election audit.

ES&S Security Philosophy

Nothing is more important to ES&S than protecting America's democracy through secure and accurate elections. That's why every ES&S product reflects the company's three-part security philosophy:



- **Design:** All products are designed, without compromise, to meet the latest and ever-evolving standards in security, accuracy and reliability.



- **Testing:** In addition to ES&S testing protocols, all tabulation systems are rigorously tested and certified by the federal Election Assistance Commission (EAC), which reflects security and performance standards developed by scientists, academia and election officials. The ES&S testing protocol also involves testing by independent, accredited laboratories. ES&S submitted our end-to-end voting configuration for Cybersecurity and Infrastructure Security Agency (CISA) critical product evaluation (CPE) at Idaho National Labs.



- **Implementation:** The entire ES&S team is devoted to ensuring that each piece of technology performs as expected on election day, helping election officials uphold the laws of their state which mandate strict physical security and tight chain of custody of all voting machines.

Perhaps most importantly, ES&S' essence — its very being — is predicated on providing America with secure, accurate and accessible elections. Every person at ES&S holds themselves, and each other, accountable for this mandate, and is proud to serve a role in this noble purpose.