



## **ONLINE VOTING PROCEDURES**

These are the certified Rules and Procedures for Online Voting in the 2018 Municipal Election for the City of Markham.



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**CITY OF MARKHAM**

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## **DEFINITIONS**

1. In these Procedures,

“**ACT**” means the Municipal Elections Act, 1996, S.O., 1996, c. 32.

“**CAPTCHA CHALLENGE**” is a type of challenge-response test used to ensure that the response is not generated by a computer.

“**CERTIFIED CANDIDATE**” is a person whose nomination has been certified under Section 35 of the ACT.

“**CITY**” refers to the City of Markham

“**DECLARATION OF QUALIFICATION AND ACKNOWLEDGEMENT OF OFFENCES STATEMENT**” refers to the declaration ELIGIBLE VOTERS must take prior to voting via the internet; it confirms they are eligible to vote in Markham and advises them of the penalties prescribed by the ACT.

“**DECRYPT**” refers to the act of deciphering or decoding data that has been encrypted.

“**DECRYPTION KEYS**” refer to the generated passwords that are generated by the CITY prior to the onset of the VOTING PERIOD. After the close of voting on VOTING DAY, the ELECTION MANAGEMENT TEAM uses the DECRYPTION KEYS to DECRYPT the online voting results data provided to Markham by the CITY’s ONLINE VOTING PROVIDER.

“**DENIAL OF SERVICE ATTACK (DoS)**” is an action that prevents or impairs the authorized use of networks, systems, or applications by exhausting resources such as central processing units (CPU), memory, bandwidth, and disk space.

“**DESIGNATED VOTING PLACE**” is a specific physical location designated by the RETURNING OFFICER in accordance with Section 45 of the ACT for in-person, paper ballot voting.

“**DISRUPTION OF SERVICE**” refers to an unlikely disconnection that an ELIGIBLE VOTER may encounter during the online voting process. If a DISRUPTION OF SERVICE occurs, the ELIGIBLE VOTER must log back into the system and restart the voting process.

“**EARLY VOTING PERIOD**” refers to the period between 9:00 AM EDT (Eastern Daylight Time) on Friday, October 12, 2018 and 9:59 AM EDT on Monday, October 22, 2018, during which time an ELIGIBLE VOTER may cast a ballot via the internet in Markham’s 2018 Municipal Election.

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**“ELECTION MANAGEMENT TEAM”** refers to the RETURNING OFFICER and designates in charge of ensuring the integrity of the configuration and the voting results, as well as guaranteeing the secrecy of the votes.

**“ELECTION OFFICIAL”** refers to a person designated by the RETURNING OFFICER to assist in the conduct of Markham’s 2018 Municipal Election.

**“ELIGIBLE VOTER”** is a person who, as of VOTING DAY, is: a) a resident of Markham or the owner or tenant of land in Markham, or the spouse of such owner or tenant; and, b) is a Canadian citizen; and, c) is at least 18 years old; and, d) is not otherwise prohibited from voting.

**“ENCRYPT”** refers to the act of ciphering data using a secret code so as to be unintelligible to unauthorized parties.

**“OFFICE”** refers to the race in which a candidate is registered to run as governed by the ACT (i.e. Mayor, Regional Councillor, Ward Councillor, Regional Chair and School Board Trustee).

**“ONLINE VOTING”** refers to the process by which an ELIGIBLE VOTER casts their ballot via the internet. In order to vote online, an ELIGIBLE VOTER must access the official election website using the required security credentials.

**“ONLINE VOTING PROVIDER”** refers to the vendor retained by the CITY to provide online voting services.

**“OVER-VOTE”** refers to the process by which an ELIGIBLE VOTER selects more candidates than permitted for a particular OFFICE. The CITY’s online voting system does not allow for OVER-VOTES.

**“RETURNING OFFICER”** means the person appointed under the ACT to preside over the 2018 Municipal Election for the CITY.

**“UNDER-VOTE”** refers to the process by which an ELIGIBLE ELECTOR selects less than the permitted number of candidates for a particular OFFICE. The CITY’s online voting system does allow for UNDER-VOTES.

**“VOTER ASSISTANCE CENTRE”** is a specific physical location designated by the RETURNING OFFICER in accordance with Section 45 of the ACT for in-person voting.

**“VOTER INFORMATION PACKAGE (VIP)”** refers to the package of information containing election information sent by the RETURNING OFFICER to all ELIGIBLE VOTERS in Markham.

**“VOTERS’ LIST”** refers to the list of all ELIGIBLE VOTERS in Markham prepared by the Municipal Property Assessment Corporation and revised by the RETURNING OFFICER for

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use in the 2018 Municipal Election.

**“VOTERS’ LIST MANAGEMENT PROVIDER”** refers to the vendor retained by the CITY to manage the VOTERS’ LIST.

**“VOTING DAY”** refers to the day on which the final vote is to be taken in the 2018 Municipal Election (October 22, 2018).

**“VOTING PERIOD”** refers to the days on which votes can be cast in the 2018 Municipal Election (October 12-22, 2018).

**“VOTING PIN”** refers to the personal alphanumeric code randomly generated by the CITY’s ONLINE VOTING PROVIDER. This code is used by an ELIGIBLE VOTER during the VOTING PERIOD.

### **APPLICATION OF PROCEDURE**

2. These Procedures apply to the 2018 Municipal Election conducted by the RETURNING OFFICER. By-law 2017-20, passed under the authority of Section 42 of the ACT authorizes the use of ONLINE VOTING in municipal elections. A copy of By-law 2017-20 is available from the Clerk’s office.
3. In accordance with Section 12 of the ACT, the RETURNING OFFICER may provide for any matter or procedure that is not otherwise provided for in the ACT or regulation, and, in the RETURNING OFFICER’S opinion, is necessary or desirable for conducting the election.
4. Where these Procedures do not specifically address a matter, the Municipal Election to which these procedures apply shall be conducted in accordance with the principles of the ACT. These principles include:
  - (a) the secrecy and confidentiality of the individual votes is paramount;
  - (b) the Election should be fair and non-biased;
  - (c) the Election should be accessible to all ELIGIBLE VOTERS;
  - (d) the integrity of the process should be maintained throughout the Election;
  - (e) there should be certainty that the results of the Election reflect the votes cast; and,
  - (f) ELIGIBLE VOTERS and CERTIFIED CANDIDATES should be treated fairly and consistently.
5. These Procedures may be amended as deemed necessary by the RETURNING OFFICER. Any

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amendment to these procedures shall be signed by the RETURNING OFFICER and a copy of the revised Procedures shall be provided to all CERTIFIED CANDIDATES via email.

6. The RETURNING OFFICER shall appoint ELECTION OFFICIALS for the purposes of implementing these Procedures and may designate their titles and duties. Such appointments shall be in writing.

### **SECRECY AND INTERFERENCE**

7. The RETURNING OFFICER and the CITY's ONLINE VOTING PROVIDER shall maintain and aid in maintaining the secrecy of voting.
8. No person shall interfere or attempt to interfere with an ELIGIBLE VOTER while in the process of accessing the online voting service or attempt to interfere in the voting process while using the online voting service unless expressly requested and authorized by the ELIGIBLE VOTER.
9. No person shall obtain or attempt to obtain information about how an ELIGIBLE VOTER intends to vote or has voted. Any ELECTION OFFICIAL requested by an ELIGIBLE VOTER to assist them with voting is required to maintain the secrecy of the vote(s) cast by the ELIGIBLE VOTER and shall vote according to the instructions and wishes of the ELIGIBLE VOTER.

### **SECURITY AND INTEGRITY**

10. A predefined security protocol is adhered to during the entire 2018 Municipal Election period; this protocol ensures access control to the status of the election is only available to the RETURNING OFFICER and/or designate, and/or persons so authorized by the RETURNING OFFICER.
11. The CITY's ONLINE VOTING PROVIDER implements a unique and patented cryptographic protocol, which combined with physical and logical security measures, provides an electronic voting platform that meets the CITY's predefined security protocols and supports the principles of the ACT.
12. Access to the voting system application is monitored and controlled through a series of system features and services both internally and through data centre services provided by the CITY's ONLINE VOTING PROVIDER.
13. Should a DENIAL OF SERVICE ATTACK occur at any point during the election process, the CITY's ONLINE VOTING PROVIDER will open an investigation to determine if it is an attack and take the required measures to mitigate the attack to ensure there is no disruption of service.

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14. The CITY's ONLINE VOTING PROVIDER offers no single point of failure. All servers are replicated and networking appliances, database and any component is duplicated to ensure there is no disruption of service.

### **VOTER INFORMATION PACKAGE (VIP)**

15. The CITY's ONLINE VOTING PROVIDER will generate a data file containing the names of ELIGIBLE VOTERS for the RETURNING OFFICER to use in the preparation of the VIP to be sent to all ELIGIBLE VOTERS.
16. The VIP will include the election web site address and a VOTING PIN for use by an ELIGIBLE VOTER to access the online voting program hosted by the CITY's ONLINE VOTING PROVIDER.
17. Prior to VOTING DAY, the RETURNING OFFICER will send a VIP via Canada Post to each ELIGIBLE VOTER whose name appears on the VOTERS' LIST.
18. Where an ELIGIBLE VOTER'S date of birth is missing, they will have the option of calling an ELECTION OFFICIAL. If the ELECTION OFFICIAL is satisfied by the ELIGIBLE VOTER'S identity, their date of birth will be updated to allow the ELIGIBLE VOTER to vote online.
19. Any undeliverable VIPs will be returned to the RETURNING OFFICER'S attention by Canada Post and will be stored within a secure area.
20. Where an ELIGIBLE VOTER notifies an ELECTION OFFICIAL concerning a lost VIP, or a VIP that was never received, the ELECTION OFFICIAL shall determine whether a VIP was mailed to the ELIGIBLE VOTER.
21. Where a VIP was mailed to the ELIGIBLE VOTER but was not received or was received but subsequently lost:
  - (a) the ELECTION OFFICIAL shall confirm the qualifying and mailing address of the ELIGIBLE VOTER;
  - (b) the ELIGIBLE VOTER shall satisfy the ELECTION OFFICIAL that they did not receive a VIP or did receive it and subsequently lost it; and,
  - (c) the ELECTION OFFICIAL shall disable the VOTING PIN that was not received/lost and electronically mark the VOTING PIN as not being received/lost by the ELIGIBLE VOTER.

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22. Pursuant to Section 21 of these Procedures, the ELIGIBLE VOTER shall be required to answer questions to the satisfaction of the ELECTION OFFICIAL prior to the issuance of a new VIP.
23. After successfully answering the questions from the ELECTION OFFICIAL, a new VIP will be issued to the ELIGIBLE VOTER.
24. Between September 4, 2018 and October 22, 2018, ELIGIBLE VOTERS may be added to the VOTERS' LIST online at markahmvotes.ca, or in-person at the City of Markham Election Office, Markham Civic Centre, 101 Town Centre Blvd or any location designated by the RETURNING OFFICER. Any ELIGIBLE VOTER added to the VOTERS' LIST during this time will be provided with a VIP by the RETURNING OFFICER. This will include their VOTING PIN.

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25. ELIGIBLE VOTERS will be able to cast their ballot online in the 2018 Municipal Election during the VOTING PERIOD.
26. The voting site is hosted by the CITY's ONLINE VOTING PROVIDER and is accessible through the link provided in the VIP.
27. The ELIGIBLE VOTERS will enter the site of the CITY's ONLINE VOTING PROVIDER and will be required to:
  - (a) read and accept the mandatory DECLARATION OF QUALIFICATION AND ACKNOWLEDGEMENT OF OFFENCES STATEMENT;
  - (b) enter their VOTING PIN;
  - (c) enter their DATE OF BIRTH;
  - (d) complete the CAPTCHA CHALLENGE;
  - (e) complete their BALLOT by following the instructions provided; and,
  - (f) once completed, ELIGIBLE VOTERS will be able to review their votes and/or change their selections for each OFFICE as many times as required before casting their ballot.
28. An ELIGIBLE VOTER will not be able to OVER-VOTE any OFFICE but is able to UNDER-VOTE or choose not to vote in a particular OFFICE.
29. An ELIGIBLE VOTER will have the option of completing an online voting survey once they have submitted their BALLOT.

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### **DISRUPTION OF VOTING**

30. If at anytime during the ONLINE VOTING process there is a DISRUPTION OF SERVICE or the system times out, an ELIGIBLE VOTER must log back into the system and restart the voting process.
31. If an ELIGIBLE VOTER is unsure if their vote was cast, an ELECTION OFFICIAL will review the status of the ELIGIBLE VOTER to determine if a vote was cast or not:
  - (a) if cast, the ELECTION OFFICIAL will confirm with the voter that their ballot was accepted; or,
  - (b) if the status is 'not voted', the voter will be advised that the vote was not cast and that the ELIGIBLE VOTER should be able to re-enter the system and restart the voting process.
32. Once an ELIGIBLE VOTER has cast a ballot they are not able to re-enter the system.

### **VOTERS' LIST**

33. The VOTERS' LIST will be web-based and hosted by Markham's VOTERS' LIST MANAGEMENT PROVIDER.
34. When an ELIGIBLE VOTER casts a ballot online, their voter status is automatically noted on the VOTERS' LIST as having cast a ballot.
35. When an ELIGIBLE VOTER casts a ballot in-person at a DESIGNATED VOTING PLACE or a VOTER ASSISTANCE CENTRE during the VOTING PERIOD, the ELECTION OFFICIAL updates the voter status on the VOTERS' LIST and denotes them as having cast a ballot.
36. The system used by the VOTERS' LIST MANAGEMENT PROVIDER will automatically note when a BALLOT has been cast by an ELIGIBLE VOTER online or in-person. An ELIGIBLE VOTER who has already voted online will not be able to attend a DESIGNATED VOTING PLACE or VOTER ASSISTANCE CENTRE to cast a second BALLOT without detection. Likewise an ELIGIBLE VOTER who decides to cast a BALLOT in person at a DESIGNATED VOTING PLACE or VOTER ASSISTANCE CENTRE will not be able to cast a BALLOT online. ELIGIBLE VOTERS will only be able to cast a BALLOT once using online voting or attending in-person, but not using both methods.
37. At the end of each VOTING DAY, the RETURNING OFFICER will prepare a list of the names of ELIGIBLE VOTERS who have voted. The RETURNING OFFICER will provide a copy of this list via email to all CERTIFIED CANDIDATES in accordance with the ACT.

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### **TESTING AND AUDITING OF THE ONLINE VOTING SYSTEM**

38. Prior to the start of voting, the RETURNING OFFICER will conduct comprehensive testing of the online voting platform.
39. The test(s) shall include:
  - (a) checking the wording of the script;
  - (b) attempting to use a VOTING PIN more than once;
  - (c) balancing a predetermined number of votes with those cast;
  - (d) matching VOTING PINS to names and addresses;
  - (e) checking the system which is used for activating VOTING PINS throughout the revision process;
  - (f) deliberately entering the wrong information; and,
  - (g) any other functions as determined appropriate by the RETURNING OFFICER.
40. At least one “mock election” using the names of CERTIFIED CANDIDATES will be conducted. The RETURNING OFFICER will verify the results of the mock election using a pre-determined test file.
41. The RETURNING OFFICER will notify all CERTIFIED CANDIDATES of the date and time of the opportunities to view a demonstration of the online voting platform.

### **STORAGE OF EARLY VOTING PERIOD RESULTS**

42. Results from the VOTING PERIOD will be securely stored off-line by the CITY’S ONLINE VOTING PROVIDER until release by the ELECTION MANAGEMENT TEAM after 8 PM on VOTING DAY.

### **DISPLAY OF ONLINE VOTING ELECTION RESULTS**

43. The total of the votes from the EARLY VOTING PERIOD will not be made available until after the close of voting (8:00 PM) on VOTING DAY.
44. Results from ONLINE VOTING will be amalgamated with the results from in-person voting and displayed as unofficial results in the election night results system and on the CITY’S web site.

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### RECOUNTS

45. In accordance with the ACT, a recount of ballots cast online shall be conducted in the same manner outlined in these Procedures.

### ACCESSIBILITY

46. The CITY's ONLINE VOTING PROVIDER conforms to the WCAG 2.0 standard which meets the current requirements for the *Accessibility for Ontarians with Disabilities Act*.

### OFFENCES AND PENALTIES

47. In accordance with the ACT, a person is guilty of an offence and liable, upon conviction, to a financial penalty if they:
- (a) vote online without being entitled to do so;
  - (b) vote more than once in the CITY;
  - (c) induce or procures a person to vote online when that person is not entitled to do so;
  - (e) provide false or misleading information to a person whom this ACT authorizes to obtain information;
  - (g) without authority, supplies their ONLINE VOTING information to anyone for the purpose of allowing them to vote;
  - (h) take, open or otherwise deal with ONLINE VOTING information without having authority to do so;
  - (i) directly or indirectly,
    - (i) offer, give, lend, or promise or agree to give or lend any valuable consideration, in connection with the exercise or non-exercise of an ELIGIBLE VOTER'S vote;
    - (ii) advance, pay or cause to be paid money intending that it be used to commit an offence referred to in clause (i) (i), or knowing that it will be used to repay money used in that way;
    - (iii) give, procure or promise or agree to procure an office or employment in connection with the exercise or non-exercise of an ELIGIBLE VOTER'S vote;

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- (iv) apply for, accept or agree to accept any valuable consideration or office or employment in connection with the exercise or non-exercise of an ELIGIBLE VOTER'S vote;
- (v) attempt to do any of the above.

### **MAIL TAMPERING – CRIMINAL OFFENCE AND PROSECUTION**

- 48. The Criminal Code of Canada states that tampering with the mail of an individual is a criminal offence and a person(s) found guilty is liable to a term of imprisonment not exceeding ten (10) years.
- 49. In order to ensure the integrity and confidence of the online voting process, the RETURNING OFFICER will investigate or cause to be investigated all complaints about possible mail tampering as it relates to election-related documents provided to ELIGIBLE VOTERS by the RETURNING OFFICER.

### **EMERGENCY**

- 50. In accordance with the ACT, the RETURNING OFFICER may declare an emergency if they are of the opinion that circumstances have arisen that are likely to prevent the election being conducted in accordance with the principles of the ACT.
- 51. Upon declaring an emergency, the RETURNING OFFICER is authorized to make any arrangements they consider advisable for the conduct of the election.
- 52. The arrangements made by the RETURNING OFFICER, if they are consistent with the principles of the ACT, prevail over anything in the ACT and the regulations made under it.
- 53. If made in good faith, the RETURNING OFFICER'S declaration of emergency and arrangements shall not be reviewed or set aside on account of unreasonableness or supposed unreasonableness.
- 54. The emergency continues until the RETURNING OFFICER declares that it has ended.

### **DATA DESTRUCTION**

- 55. All data related to online voting will be secured off-line for the required 120 days by the CITY'S ONLINE VOTING PROVIDER and shall be deleted following the rules and regulations as set out in the ACT after that date has passed.

### **PROHIBITED ACTIVITIES**

- 56. CERTIFIED CANDIDATES are not permitted to assist ELIGIBLE VOTERS in casting their ballot. This includes providing devices to ELIGIBLE VOTERS for ONLINE VOTING.

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57. CERTIFIED CANDIDATES are not permitted to ask ELIGIBLE VOTERS for their VOTING PIN.
58. CERTIFIED CANDIDATES are not permitted to publish, share or promote the ONLINE VOTING URL.