

IN THE UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF MICHIGAN

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**TIMOTHY KING, MARIAN ELLEN
SHERIDAN, JOHN EARL HAGGARD,
CHARLES JAMES RITCHARD, JAMES
DAVID HOOPER and DAREN WADE
RUBINGH,**

Plaintiffs.

v.

**GRETCHEN WHITMER, in her official
capacity as Governor of the State of
Michigan, JOCELYN BENSON, in her
official capacity as Michigan Secretary of
State and the Michigan BOARD OF STATE
CANVASSERS.**

Defendants.

CASE NO.

**COMPLAINT FOR DECLARATORY, EMERGENCY,
AND PERMANENT INJUNCTIVE RELIEF**



NATURE OF THE ACTION

1. This civil action brings to light a massive election fraud, multiple violations of the Michigan Election Code, *see, e.g.*, MCL §§ 168.730-738, in addition to the Election and Electors Clauses and Equal Protection Clause of the U.S. Constitution violations that occurred during the 2020 General Election throughout the State of Michigan,¹ as set forth in the affidavits of dozens of eye witnesses and the statistical anomalies and mathematical impossibilities detailed in the affidavits of expert witnesses.

2. The scheme and artifice to defraud was for the purpose of illegally and fraudulently manipulating the vote count to manufacture an election of Joe Biden as President of the United States. The fraud was executed by many means,² but the most fundamentally troubling, insidious, and egregious ploy was the systemic adaptation of old-fashioned “ballot-stuffing.” It has now been amplified and rendered virtually invisible by computer software created and run by domestic and foreign actors for that very purpose. This Complaint details an especially egregious range of conduct in Wayne County and the City of Detroit, though this conduct occurred throughout the State at the direction of Michigan state election officials.

3. The multifaceted schemes and artifices implemented by Defendants and their collaborators to defraud resulted in the unlawful counting, or manufacturing, of hundreds of thousands of illegal, ineligible, duplicate or purely fictitious ballots in the State of Michigan, that

¹ The same pattern of election fraud and voter fraud writ large occurred in all the swing states with only minor variations in Michigan, Pennsylvania, Arizona and Wisconsin. See Exh. 101, William M. Briggs, Ph.D. “An Analysis Regarding Absentee Ballots Across Several States” (Nov. 23, 2020) (“Dr. Briggs Report”).

²50 U.S.C. § 20701 requires Retention and preservation of records and papers by officers of elections; deposit with custodian; penalty for violation, but as will be shown wide-pattern of misconduct with ballots show preservation of election records have not been kept; and Dominion logs are only voluntary, with no system wide preservation system. Without an incorruptible audit log, there is no acceptable system.

constitute a multiple of Biden's purported lead in the State. While this Complaint, and the eyewitness and expert testimony incorporated herein, identify with specificity sufficient ballots required to overturn and reverse the election results, the entire process is so riddled with fraud, illegality, and statistical impossibility that this Court, and Michigan's voters, courts, and legislators, cannot rely on, or certify, any numbers resulting from this election.

Dominion Voting Systems Fraud and Manipulation

4. The fraud begins with the election software and hardware from Dominion Voting Systems Corporation ("Dominion") used by the Michigan Board of State Canvassers. The Dominion systems derive from the software designed by Smartmatic Corporation, which became Sequoia in the United States.

5. Smartmatic and Dominion were founded by foreign oligarchs and dictators to ensure computerized ballot-stuffing and vote manipulation to whatever level was needed to make certain Venezuelan dictator Hugo Chavez never lost another election. *See* Exh. 1, Redacted Declaration of Dominion Venezuela Whistleblower ("Dominion Whistleblower Report"). Notably, Chavez "won" every election thereafter.

6. As set forth in the Dominion Whistleblower Report, the Smartmatic software was contrived through a criminal conspiracy to manipulate Venezuelan elections in favor of dictator Hugo Chavez:

Importantly, I was a direct witness to the creation and operation of an electronic voting system in a conspiracy between a company known as Smartmatic and the leaders of conspiracy with the Venezuelan government. This conspiracy specifically involved President Hugo Chavez Frias, the person in charge of the National Electoral Council named Jorge Rodriguez, and principals, representatives, and personnel from Smartmatic. The purpose of this conspiracy was to create and operate a voting system that could change the votes in elections from votes against persons running the Venezuelan government to votes in their favor in order to maintain control of the government. In mid-February of 2009, there was a national referendum to change the Constitution of Venezuela to end

term limits for elected officials, including the President of Venezuela. The referendum passed. This permitted Hugo Chavez to be re-elected an unlimited number of times. . . .

Smartmatic's electoral technology was called "Sistema de Gestión Electoral" (the "Electoral Management System"). Smartmatic was a pioneer in this area of computing systems. Their system provided for transmission of voting data over the internet to a computerized central tabulating center. The voting machines themselves had a digital display, fingerprint recognition feature to identify the voter, and printed out the voter's ballot. The voter's thumbprint was linked to a computerized record of that voter's identity. Smartmatic created and operated the entire system. *Id.* ¶¶ 10 & 14.

7. A core requirement of the Smartmatic software design ultimately adopted by Dominion for the Michigan's elections was the software's ability to hide its manipulation of votes from any audit. As the whistleblower explains:

Chavez was most insistent that Smartmatic design the system in a way that the system could change the vote of each voter without being detected. He wanted the software itself to function in such a manner that if the voter were to place their thumb print or fingerprint on a scanner, then the thumbprint would be tied to a record of the voter's name and identity as having voted, but that voter would not tracked to the changed vote. He made it clear that the system would have to be setup to not leave any evidence of the changed vote for a specific voter and that there would be no evidence to show and nothing to contradict that the name or the fingerprint or thumb print was going with a changed vote. Smartmatic agreed to create such a system and produced the software and hardware that accomplished that result for President Chavez. *Id.* ¶15.

8. The design and features of the Dominion software do not permit a simple audit to reveal its misallocation, redistribution, or deletion of votes. First, the system's central accumulator does not include a protected real-time audit log that maintains the date and time stamps of all significant election events. Key components of the system utilize unprotected logs. Essentially this allows an unauthorized user the opportunity to arbitrarily add, modify, or remove log entries, causing the machine to log election events that do not reflect actual voting tabulations—or more specifically, do not reflect the actual votes of or the will of the people. *See* Exh. 107, August 24, 2020 Declaration of HarriHursti, ¶¶45-48).

9. Indeed, under the professional standards within the industry in auditing and forensic analysis, when a log is unprotected, and can be altered, it can no longer serve the purpose of an audit log. There is incontrovertible physical evidence that the standards of physical security of the voting machines and the software were breached, and machines were connected to the internet in violation of professional standards, which violates federal election law on the preservation of evidence.

10. In deciding to award Dominion a \$25 million, ten-year contract (to a Dominion project team led by Kelly Garrett, former Deputy Director of the Michigan Democratic Party), and then certifying Dominion software, Michigan officials disregarded all the concerns that caused Dominion software to be rejected by the Texas Board of elections in 2018 because it was deemed vulnerable to undetected and non-auditable manipulation. An industry expert, Dr. Andrew Appel, Princeton Professor of Computer Science and Election Security Expert has recently observed, with reference to Dominion Voting machines: "I figured out how to make a slightly different computer program that just before the polls were closed, it switches some votes around from one candidate to another. I wrote that computer program into a memory chip and now to hack a voting machine you just need 7 minutes alone with it and a screwdriver."³

11. Plaintiff's expert witness, Russell James Ramsland, Jr. (Exh. 101, "Ramsland Affidavit"), has concluded that Dominion alone is responsible for the injection, or fabrication, of 289,866 illegal votes in Michigan, that must be disregarded. This is almost twice the number of Mr. Biden's purported lead in the Michigan vote (without consideration of the additional illegal, ineligible, duplicate or fictitious votes due to the unlawful conduct outlined below), and thus by itself is grounds to set aside the 2020 General Election and grant the declaratory and injunctive

³Andrew W. Appel, *et al.*, "Ballot Marking Devices (BMDs) Cannot Assure the Will of the Voters" at (Dec. 27, 2019), attached hereto as Exhibit 2 ("Appel Study").

relief requested herein.

12. In addition to the Dominion computer fraud, this Complaint identifies several additional categories of “traditional” voting fraud and Michigan Election Code violations, supplemented by healthy doses of harassment, intimidation, discrimination, abuse and even physical removal of Republican poll challengers to eliminate any semblance of transparency, objectivity or fairness from the vote counting process. While this illegal conduct by election workers and state, county and city employees in concert with Dominion, even if considered in isolation, the following three categories of systematic violations of the Michigan Election Code cast significant doubt on the results of the election and mandate this Court to set aside the 2020 General Election and grant the declaratory and injunctive relief requested herein.

Fact Witness Testimony of Voting Fraud & Other Illegal Conduct

13. There were three broad categories of illegal conduct by election workers in collaboration with other employee state, county and/or city employees and Democratic poll watchers and activists. First, to facilitate and cover-up the voting fraud and counting of fraudulent, illegal or ineligible voters, election workers:

- A. Denied Republican election challengers access to the TCF Center, where all Wayne County, Michigan ballots were processed and counted;
- B. Denied Republic poll watchers at the TCF Center meaningful access to view ballot handling, processing, or counting and locked credentialed challengers out of the counting room so they could not observe the process, during which time tens of thousands of ballots were processed;
- C. Engaged in a systematic pattern of harassment, intimidation and even physical removal of Republican election challengers or locking them out of the TCF Center;
- D. Systematically discriminated against Republican poll watchers and favored Democratic poll watchers;
- E. Ignored or refused to record Republican challenges to the violations outlined herein;

- F. Refused to permit Republican poll challengers to observe ballot duplication and other instances where they allowed ballots to be duplicated by hand without allowing poll challengers to check if the duplication was accurate;
- G. Unlawfully coached voters to vote for Joe Biden and to vote a straight Democrat ballot, including by going over to the voting booth with voters in order to watch them vote and coach them for whom to vote;
- H. As a result of the above, Democratic election challengers outnumbered Republicans by 2:1 or 3:1 (or sometimes 2:0 at voting machines); and
- I. Collaborated with Michigan State, Wayne County and/or City of Detroit employees (including police) in all of the above unlawful and discriminatory behavior.

14. Second, election workers illegally forged, added, removed or otherwise altered

information on ballots, the Qualified Voter File (QVF) and Other Voting Records, including:

- A. Fraudulently adding “tens of thousands” of new ballots and/or new voters to QVF in two separate batches on November 4, 2020, all or nearly all of which were votes for Joe Biden;
- B. Forging voter information and fraudulently adding new voters to the QVF Voters, in particular, e.g., when a voter’s name could not be found, the election worker assigned the ballot to a random name already in the QVF to a person who had not voted and recorded these new voters as having a birthdate of 1/1/1900;
- C. Changing dates on absentee ballots received after 8:00 PM Election Day deadline to indicate that such ballots were received before the deadline;
- D. Changing Votes for Trump and other Republican candidates; and
- E. Added votes to “undervote” ballots and removing votes from “Over-Votes”.

15. Third, election workers committed several additional categories of violations of the Michigan Election Code to enable them to accept and count other illegal, ineligible or duplicate ballots, or reject Trump or Republican ballots, including:

- A. Permitting illegal double voting by persons that had voted by absentee ballot and in person;
- B. Counting ineligible ballots – and in many cases – multiple times;
- C. Counting ballots without signatures, or without attempting to match signatures, and ballots without postmarks, pursuant to direct instructions from Defendants;

- D. Counting “spoiled” ballots;
- E. Systematic violations of ballot secrecy requirements;
- F. Unsecured ballots arrived at the TCF Center loading garage, not in sealed ballot boxes, without any chain of custody, and without envelopes, after the 8:00 PM Election Day deadline, in particular, the tens of thousands of ballots that arrived on November 4, 2020; and
- G. Accepting and counting ballots from deceased voters.

Expert Witness Testimony Regarding Voting Fraud

16. In addition to the above fact witnesses, this Complaint presents expert witness testimony demonstrating that several hundred thousand illegal, ineligible, duplicate or purely fictitious votes must be thrown out, in particular: (1) a report from Russel Ramsland, Jr. showing the “physical impossibility” of nearly 385,000 votes injected by four precincts/township on November 4, 2020, that resulted in the counting of nearly 290,000 more ballots processed than available capacity (which is based on statistical analysis that is independent of his analysis of Dominion’s flaws); (2) a report from Dr. William Briggs, showing that there were approximately 60,000 absentee ballots listed as “unreturned” by voters that either never requested them, or that requested and returned their ballots; and (3) a report from Dr. Eric Quinell analyzing the anomalous turnout figures in Wayne and Oakland Counties showing that Biden gained nearly 100% and frequently more than 100% of all “new” voters in certain townships/precincts over 2016, and thus indicated that nearly 87,000 anomalous and likely fraudulent votes from these precincts.

17. As explained and demonstrated in the accompanying redacted declaration of a former electronic intelligence analyst under 305th Military Intelligence with experience gathering SAM missile system electronic intelligence, the Dominion software was accessed by agents acting on behalf of China and Iran in order to monitor and manipulate elections, including

the most recent US general election in 2020. This Declaration further includes a copy of the patent records for Dominion Systems in which Eric Coomer is listed as the first of the inventors of Dominion Voting Systems. (See Attached hereto as Ex. 105, copy of redacted witness affidavit, November 23, 2020).

18. Expert Navid Keshavarez-Nia explains that US intelligence services had developed tools to infiltrate foreign voting systems including Dominion. He states that Dominion's software is vulnerable to data manipulation by unauthorized means and permitted election data to be altered in all battleground states. He concludes that hundreds of thousands of votes that were cast for President Trump in the 2020 general election were transferred to former Vice-President Biden. (Ex. 109).

19. These and other “irregularities” provide this Court grounds to set aside the results of the 2020 General Election and provide the other declaratory and injunctive relief requested herein.

JURISDICTION AND VENUE

20. This Court has subject matter under 28 U.S.C. § 1331 which provides, “The district courts shall have original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States.”

21. This Court also has subject matter jurisdiction under 28 U.S.C. § 1343 because this action involves a federal election for President of the United States. “A significant departure from the legislative scheme for appointing Presidential electors presents a federal constitutional question.” *Bush v. Gore*, 531 U.S. 98, 113 (2000) (Rehnquist, C.J., concurring); *Smiley v. Holm*, 285 U.S. 355, 365 (1932).

22. The jurisdiction of the Court to grant declaratory relief is conferred by 28 U.S.C. §§ 2201

and 2202 and by Rule 57, Fed. R. Civ. P.

23. This Court has jurisdiction over the related Michigan constitutional claims and state-law claims under 28 U.S.C. § 1367. Venue is proper because a substantial part of the events or omissions giving rise to the claim occurred in the Eastern District. 28 U.S.C. § 1391(b) & (c).

24. Because the United States Constitution reserves for state legislatures the power to set the time, place, and manner of holding elections for Congress and the President, state executive officers, including but not limited to Secretary Benson, have no authority to unilaterally exercise that power, much less flout existing legislation.

THE PARTIES

25. Each of the following Plaintiffs are registered Michigan voters and nominees of the Republican Party to be a Presidential Elector on behalf of the State of Michigan: Timothy King, a resident of Washtenaw County, Michigan; Marian Ellen Sheridan, a resident of Oakland County, Michigan; and, John Earl Haggard, a resident of Charlevoix, Michigan;

26. Each of these Plaintiffs has standing to bring this action as voters and as candidates for the office of Elector under MCL §§ 168.42 & 168.43 (election procedures for Michigan electors). As such, Presidential Electors “have a cognizable interest in ensuring that the final vote tally reflects the legally valid votes cast,” as “[a]n inaccurate vote tally is a concrete and particularized injury to candidates such as the Electors.” *Carson v. Simon*, 978 F.3d 1051, 1057 (8th Cir. 2020) (affirming that Presidential Electors have Article III and prudential standing to challenge actions of Secretary of State in implementing or modifying State election laws); *see also McPherson v. Blacker*, 146 U.S. 1, 27 (1892); *Bush v. Palm Beach Cty. Canvassing Bd.*, 531 U.S. 70, 76 (2000) (per curiam). Each brings this action to set aside and decertify the election results for the Office of President of the United States that was certified by the Michigan Secretary of State on November 23, 2020. The certified results showed a plurality of 154,188

votes in favor of former Vice-President Joe Biden over President Trump.

27. Plaintiff James Ritchard is a registered voter residing in Oceana County. He is the Republican Party Chairman of Oceana County.

28. Plaintiff James David Hooper is a registered voter residing in Wayne County. He is the Republican Party Chairman for the Wayne County Eleventh District.

29. Plaintiff Daren Wade Ribingh is a registered voter residing in Antrim County. He is the Republican Party Chairman of Antrim County. is

30. Defendant Gretchen Whitmer (Governor of Michigan) is named herein in her official capacity as Governor of the State of Michigan.

31. Defendant Jocelyn Benson (“Secretary Benson”) is named as a defendant in her official capacity as Michigan’s Secretary of State. Jocelyn Benson is the “chief elections officer” responsible for overseeing the conduct of Michigan elections. MCL § 168.21 (“The secretary of state shall be the chief election officer of the state and shall have supervisory control over local election officials in the performance of their duties under the provisions of this act.”); MCL § 168.31(1)(a) (the “Secretary of State shall... issue instructions and promulgate rules... for the conduct of elections and registrations in accordance with the laws of this state”). Local election officials must follow Secretary Benson’s instructions regarding the conduct of elections. Michigan law provides that Secretary Benson “[a]dvice and direct local election officials as to the proper methods of conducting elections.” MCL § 168.31(1)(b). *See also Hare v. Berrien Co Bd. of Election*, 129 N.W.2d 864 (Mich. 1964); *Davis v. Secretary of State*, 2020 Mich. App. LEXIS 6128, at *9 (Mich. Ct. App. Sep. 16, 2020). Secretary Benson is responsible for assuring Michigan’s local election officials conduct elections in a fair, just, and lawful manner. *See* MCL 168.21; 168.31; 168.32. *See also League of Women Voters of*

Michigan v. Secretary of State, 2020 Mich. App. LEXIS 709, *3 (Mich. Ct. App. Jan. 27, 2020); *Citizens Protecting Michigan's Constitution v. Secretary of State*, 922 N.W.2d 404(Mich.Ct.App.2018),aff'd921N.W.2d247(Mich.2018);*Fitzpatrickv.Secretaryof State*, 440 N.W.2d 45 (Mich. Ct. App. 1989).

32. Defendant Michigan Board of State Canvassers is “responsible for approv[ing] votingequipmentforuseinthestate,certify[ing]theresultofelectionsheldstatewide....” Michigan Election Officials’ Manual, p. 4. *See also* MCL 168.841, *etseq.* On March 23, 2020, the Board of State Canvassers certified the results of the 2020 election finding that Joe Biden had received 154,188 more votes than President Donald Trump.

STATEMENT OF FACTS

33. Plaintiffs bring this action under 42 U.S.C. §§ 1983 and 1988, and under MCL 168.861, to remedy deprivations of rights, privileges, or immunities secured by the Constitution and laws of the United States and to contest the election results, and the corollary under the Michigan Constitution.

34. The United States Constitution sets forth the authority to regulate federal elections. With respect to congressional elections, the Constitution provides.

35. The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of choosing Senators. U.S. CONST. art. I, § 4 (“Elections Clause”).

36. With respect to the appointment of presidential electors, the Constitution provides: Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and Representatives to which the

State may be entitled in the Congress: but no Senator or Representative, or Person holding an Office of Trust or Profit under the United States, shall be appointed an Elector. U.S. CONST. art. II, § 1 (“Electors Clause”). Under the Michigan Election Code, the Electors of the President and Vice President for the State of Michigan are elected by each political party at their state convention in each Presidential election year. *See* MCL §§ 168.42 & 168.43.

37. Neither Defendant is a “Legislature” as required under the Elections Clause or Electors Clause. The Legislature is “the representative body which ma[kes] the laws of the people.” *Smiley*, 285 U.S. 365. Regulations of congressional and presidential elections, thus, “must be in accordance with the method which the state has prescribed for legislative enactments.” *Id.* at 367; *see also Ariz. State Legislature v. Ariz. Indep. Redistricting Comm’n*, 576 U.S. 787, 135 S. Ct. 2652, 2668 (U.S. 2015).

38. While the Elections Clause “was not adopted to diminish a State’s authority to determine its own lawmaking processes,” *Ariz. State Legislature*, 135 S. Ct. at 2677, it does hold states accountable to their chosen processes when it comes to regulating federal elections, *id.* at 2668. “A significant departure from the legislative scheme for appointing Presidential electors presents a federal constitutional question.” *Bush*, 531 U.S. at 113 (Rehnquist, C.J., concurring); *Smiley*, 285 U.S. at 365.

39. And Plaintiffs bring this action, to vindicate his constitutional right to a free and fair election ensuring the accuracy and integrity of the process pursuant to the Michigan Constitution, art. 2, sec. 4, par. 1(h), which states all Michigan citizens have:

The right to have the results of statewide elections audited, in such a manner as prescribed by law, to ensure the accuracy and integrity of elections.

40. The Mich. Const., art. 2, sec. 4, further states, “All rights set forth in this subsection shall be self-executing. This subsection shall be liberally construed in favor of voters’ rights in order to

effectuate its purposes.”

41. Based upon all the allegations of fraud, statutory violations, and other misconduct, as stated herein and in the attached affidavits, it is necessary to enjoin the certification of the election results pending a full investigation and court hearing, and to order an independent audit of the November 3, 2020 election to ensure the accuracy and integrity of the election

I. LEGAL BACKGROUND: RELEVANT PROVISIONS OF THE MICHIGAN ELECTION CODE AND ELECTION CANVASSING PROCEDURES.

A. Michigan law requires Secretary Benson and local election officials to provide designated challengers a meaningful opportunity to observe the conduct of elections.

42. Challengers representing a political party, candidate, or organization interested in the outcome of the election provide a critical role in protecting the integrity of elections including the prevention of voter fraud and other conduct (whether maliciously undertaken or by incompetence) that could affect the conduct of the election. *See* MCL § 168.730-738.

43. Michigan requires Secretary of State Benson, local election authorities, and state and county canvassing boards to provide challenger the opportunity to meaningfully participate in, and oversee, the conduct of Michigan elections and the counting of ballots.

44. Michigan’s election code provides that challengers shall have the following rights and responsibilities:

- a. An election challenger shall be provided a space within a polling place where they can observe the election procedure and each person applying to vote. MCL § 168.733(1).
- b. An election challenger must be allowed opportunity to inspect poll books as ballots are issued to electors and witness the electors’ names being entered in the poll book. MCL § 168.733(1)(a).
- c. An election Challenger must be allowed to observe the manner in which the duties of the election inspectors are being performed. MCL § 168.733(1)(b).

- d. An election challenger is authorized to challenge the voting rights of a person who the challenger has good reason to believe is not a registered elector. MCL§ 168.733(1)(c).
- e. An election challenger is authorized to challenge an election procedure that is not being properly performed. MCL§ 168.733(1)(d).
- f. An election challenger may bring to an election inspector's attention any of the following: (1) improper handling of a ballot by an elector or election inspector; (2) a violation of a regulation made by the board of election inspectors with regard to the time in which an elector may remain in the polling place; (3) campaigning and fundraising being performed by an election inspector or other person covered by MCL§168.744; and/or (4) any other violation of election law or other prescribed election procedure. MCL § 168.733(1)(e).
- g. An election challenger may remain present during the canvass of votes and until the statement of returns is duly signed and made. MCL§168.733(1)(f).
- h. An election challenger may examine each ballot as it is being counted. MCL§ 168.733(1)(g).
- i. An election challenger may keep records of votes cast and other election procedures as the challenger desires. MCL §168.733(1)(h).
- j. An election challenger may observe the recording of absent voter ballots on voting machines. MCL§168.733(1)(i).

45. The Michigan Legislature adopted these provisions to prevent and deter vote fraud, require the conduct of Michigan elections to be transparent, and to assure public confidence in the outcome of the election no matter how close the final ballot tally may be.

46. Michigan values the important role challengers perform in assuring the transparency and integrity of elections. For example, Michigan law provides it is a felony punishable by up to two years in state prison for any person to threaten or intimidate a challenger who is performing any activity described in Michigan law. MCL § 168.734(4). It is a felony punishable by up to two years in state prison for any person to prevent the presence of a challenger exercising their rights or to fail to provide a challenger with “conveniences for the performance of the [ir] duties.” MCL 168.734.

47. The responsibilities of challengers are established by Michigan statute. MCL § 168.730

states:

- (1) At an election, a political party or [an organization] interested in preserving the purity of elections and in guarding against the abuse of the elective franchise, may designate challengers as provided in this act. Except as otherwise provided in this act, a political party [or interested organization] may designate not more than 2 challengers to serve in a precinct at any 1 time. A political party [or interested organization] may designate not more than 1 challenger to serve at each counting board.
- (2) A challenger shall be a registered elector of this state A candidate for the office of delegate to a county convention may serve as a challenger in a precinct other than the 1 in which he or she is a candidate. . . .
- (3) A challenger may be designated to serve in more than 1 precinct. The political party [or interested organization] shall indicate which precinct the challenger will serve when designating challengers under subsection (1). If more than 1 challenger of a political party [or interested organization] is serving in a precinct at any 1 time, only 1 of the challengers has the authority to initiate a challenge at any given time. The challengers shall indicate to the board of election inspectors which of the 2 will have this authority. The challengers may change this authority and shall indicate the change to the board of election inspectors.

48. Secretary Benson and Wayne County violated these provisions of Michigan law and violated the constitutional rights of Michigan citizens and voters when they did not conduct this general election in conformity with Michigan law and the United States Constitution.

B. The canvassing process in Michigan.

49. Michigan has entrusted the conduct of elections to three categories of individuals, a “board of inspectors,” a “board of county canvassers,” and the “board of state canvassers.”

50. The board of inspectors, among its other duties, canvasses the ballots and compares the ballots to the poll books. *See* MCL § 168.801. “Such canvass shall be public and the doors to the polling places and at least 1 door in the building housing the polling places and giving ready access to them shall not be locked during such canvas.” *Id.* The members of the

board of inspectors (one from each party) are required to seal the ballots and election equipment and certify the statement of returns and tally sheets and deliver the statement of returns and tally sheet to the township or city clerk, who shall deliver it to the probate court judge, who will then deliver the statement of returns and tally sheet to the “board of county canvassers.” MCL § 168.809. “All election returns, including poll lists, statements, tally sheets, *absent voters’ return envelopes bearing the statement required [to cast an absentee ballot] ... must be carefully preserved.*” MCL § 810a and § 168.811 (emphasis added).

51. After the board of inspectors completes its duties, the board of county canvassers is to meet at the county clerk’s office “no later than 9 a.m. on the Thursday after” the election. November 5, 2020 is the date for the meeting. MCL 168.821. The board of county canvassers has power to summon and open ballot boxes, correct errors, and summon election inspectors to appear. Among other duties and responsibilities, the board of county canvassers shall do the following provided in MCL 168.823(3).

52. The board of county canvassers shall correct obvious mathematical errors in the tallies and returns.

The board of county canvassers may, if necessary for a proper determination, summon the election inspectors before them, and require them to count any ballots that the election inspectors failed to count, to make correct returns in case, in the judgment of the board of county canvassers after examining the returns, poll lists, or tally sheets, the returns already made are incorrect or incomplete, and the board of county canvassers shall canvass the votes from the corrected returns. In the alternative to summoning the election inspectors before them, the board of county canvassers may designate staff members from the county clerk’s office to count any ballots that the election inspectors failed to count, to make correct returns in case, in the judgment of the board of county canvassers after examining the returns, poll lists, or tally sheets, the returns already made are incorrect or incomplete, and the board of county canvassers shall canvass the votes from the corrected returns. When the examination of the papers is completed, or the ballots have been counted, they shall be returned to the ballot boxes or delivered to the persons entitled by law to their custody, and the boxes shall be locked and sealed and delivered to the

legal custodians. The county board of canvassers shall “conclude the canvass at the earliest possible time and in every case no later than the fourteenth day after the election,” which is November 17. MCL 168.822(1). But, “[i]f the board of county canvassers fail to certify the results of any election for any officer or proposition by the fourteenth day after the election as provided, the board of county canvassers shall immediately deliver to the secretary of the board of state canvassers all records and other information pertaining to the election. The board of state canvassers shall meet immediately and make the necessary determinations and certify the results within the 10 days immediately following the receipt of the records from the board of county canvassers.” MCL 168.822(2).

53. The Michigan board of state canvassers then meets at the Secretary of State’s office the twentieth day after the election and announce its determination of the canvass “not later than the fortieth day after the election.” For this general election that is November 23 and December 3. MCL 168.842. There is provision for the Secretary of State to direct an expedited canvass of the returns for the election of electors for President and Vice President.

54. The county board of canvassers shall “conclude the canvass at the earliest possible time and in every case no later than the fourteenth day after the election,” which is November 17. MCL 168.822(1). But, “[i]f the board of county canvassers fail to certify the results of any election for any officer or proposition by the fourteenth day after the election as provided, the board of county canvassers shall immediately deliver to the secretary of the board of state canvassers all records and other information pertaining to the election. The board of state canvassers shall meet immediately and make the necessary determinations and certify the results within the 10 days immediately following the receipt of the records from the board of county canvassers.” MCL 168.822(2).

55. The Michigan board of state canvassers then meets at the Secretary of State’s office the twentieth day after the election and announce its determination of the canvass “not later than the fortieth day after the election.” For this general election that is November 23 and December 3. MCL 168.842. There is provision for the Secretary of State to direct an expedited

canvass of the returns for the election of electors for President and VicePresident.

56. The federal provisions governing the appointment of electors to the Electoral College, 3 U.S.C. §§ 1-18, require Michigan Governor Whitmer to prepare a Certificate of Ascertainment by December 14, the date the Electoral College meets.

57. The United States Code (3 U.S.C. §5) provides that if election results are contested in any state, and if the state, prior to election day, has enacted procedures to settle controversies or contests over electors and electoral votes, and if these procedures have been applied, and the results have been determined six days before the electors' meetings, then these results are considered to be conclusive and will apply in the counting of the electoral votes. This date (the "Safe Harbor" deadline) falls on December 8, 2020. The governor of any state where there was a contest, and in which the contest was decided according to established state procedures, is required (by 3 U.S.C. § 6) to send a certificate describing the form and manner by which the determination was made to the Archivist as soon as practicable.

58. The members of the board of state canvassers are Democrat Jeannette Bradshaw, Republican Aaron Van Langeveide, Republican Norman Shinkle, and Democrat Julie Matuzak. Jeannette Bradshaw is the Board Chairperson. The members of the Wayne County board of county canvassers are Republican Monica Palmer, Democrat Jonathan Kinloch, Republican William Hartmann, and Democrat Allen Wilson. Monica Palmer is the Board Chairperson.

59. More than one hundred credentialed election challengers provided sworn affidavits. These affidavits stated, among other matters, that these credentialed challengers were denied a meaningful opportunity to review election officials in Wayne County handling ballots, processing absent voter ballots, validating the legitimacy of absent voter ballots, and the general conduct of the election and ballot counting. *See* Exhibit 1 (affidavits of election challengers).

II. FACTUAL ALLEGATIONS AND FACT WITNESS TESTIMONY REGARDING MICHIGAN ELECTION CODE VIOLATIONS AND OTHER UNLAWFUL CONDUCT BY ELECTION WORKERS AND MICHIGAN STATE, WAYNE COUNTY AND/OR CITY OF DETROIT EMPLOYEES.

60. Wayne County used the TCF Center in downtown Detroit to consolidate, collect, and tabulate all of the ballots for the County. The TCF Center was the only facility within Wayne County authorized to count the ballots.

A. Republican Election Challengers Were Denied Opportunity to Meaningfully Observe the Processing and Counting of Ballots.

61. There is a difference between a ballot and a vote. A ballot is a piece of paper. A vote is a ballot that has been completed by a citizen registered to vote who has the right to cast a vote and has done so in compliance with Michigan election law by, among other things, verifying their identity and casting the ballot on or before Election Day. It is the task of Secretary Benson and Michigan election officials to assure that only ballots cast by individuals entitled to cast a vote in the election are counted and to make sure that all ballots cast by lawful voters are recounted and the election is conducted in accord with Michigan's Election Code uniformly throughout Michigan.

62. Challengers provide the transparency and accountability to assure ballots are lawfully cast and counted as provided in Michigan's Election Code and voters can be confident the outcome of the election was honestly and fairly determined by eligible voters.

63. Wayne County excluded certified challengers from meaningfully observing the conduct of the election in violation of the Michigan Election Code. This allowed a substantial number of ineligible ballots to be counted, as outlined in Section B. below. These systematic Michigan Election Code violations, and the disparate treatment of Republican vs. Democratic poll challengers, also violated the Equal Protection Clause and other provisions of the U.S. Constitution as detailed herein. The following affidavits describe the specifics that were

observed. This conduct was pervasive in Wayne County as attested to in the affidavits attached at **EXHIBIT3**.

1. Republican Observers Denied Access to TCF Center

64. Many individuals designated as challengers to observe the conduct of the election were denied meaningful opportunity to observe the conduct of the election. For example, challengers designated by the Republican Party or Republican candidates were denied access to the TCF Center (formerly called Cobo Hall) ballot counting location in Detroit while Democratic challengers were allowed access. Exhibit 3 (Deluca aff. ¶¶7-9, 16-18; Langer aff. ¶3; Papsdorf aff. ¶3; Frego aff. ¶9; Downing aff. ¶¶2-9, 11, 15, 22; Sankey aff. ¶¶5-8; Ostin aff. ¶¶5-7; Cavaliere aff. ¶3; Cassin aff. ¶4; Rose aff. ¶18; Zimmerman aff. ¶8; Langer aff. ¶3; Poplawski aff. ¶3; Henderson aff. ¶7; Fuqua-Freyaff.¶5; Ungar aff. ¶4; Eilf aff. ¶¶9, 17; Jeup aff. ¶¶6-7; Tietz aff. ¶¶9-18; McCall aff. ¶¶5-6; Arnoldyaff.¶¶5,8-9(unlimitedmembersofthemediawerealsoallowedinsideregardless of COVID restrictions while Republican challengers were excluded)).

65. Many challengers stated that Republican challengers who had been admitted to the TCF Center but who left were not allowed to return. *Id.* (Bomer aff.¶16; Paschke aff. ¶4; Schneider aff., p. 2; Arnoldy aff. ¶6; Boller aff. ¶¶13-15 (removed and not allowed to serve as challenger); Kilunen aff. ¶7; Gorman aff. ¶¶6-8; Wirsing aff.,p. 1; Rose aff. ¶19; Krause aff. ¶¶9, 11; Roush aff. ¶16; M. Seely aff. ¶6; Fracassi aff. ¶6; Whitmore aff. ¶5). Furthermore, Republican challengers who left the TCF Center were not allowed to be replaced by other Republican challengers while Democratic challengers were replaced.

2. Disparate and Discriminatory Treatment of Republican vs. Democratic Challengers.

66. As a result of Republican challengers not being admitted or re-admitted, while

Democratic challengers were freely admitted, there were many more Democratic challengers allowed to observe the processing and counting of absent voter ballots than Republican challengers. *Id.* (Helminen aff. ¶12 (Democratic challengers outnumbered Republican challengers by at least a two-to-one ratio); Daavetila aff., p. 2 (ten times as many Democratic challengers as Republican); A. Seely aff. ¶19; Schneider aff., p. 2; Wirsing aff., p. 1; Rauf aff. ¶21; Roush aff. ¶¶16-17; Topini aff. ¶4).

67. Many challengers testified that election officials strictly and exactly enforced a six-foot distancing rule for Republican challengers but not for Democratic challengers. *Id.* (Paschke aff. ¶4; Wirsing aff., p. 1; Montie aff. ¶4; Harris aff. ¶3; Krause aff. ¶7; Vaupel aff. ¶5; Russel aff. ¶7; Duus aff. ¶9; Topini aff. ¶6). As a result, Republican challengers were not allowed to meaningfully observe the ballot counting process.

3. Republican Challengers Not Permitted to View Ballot Handling, Processing or Counting.

68. Many challengers testified that their ability to view the handling, processing, and counting of ballots was physically and intentionally blocked by election officials. *Id.* (A. Seely aff. ¶15; Miller aff. ¶¶13-14; Pennala aff. ¶4; Tyson aff. ¶¶12-13, 16; Ballew aff. ¶8; Schornak aff. ¶4; Williamson aff. ¶¶3, 6; Steffans aff. ¶¶15-16, 23-24; Zaplitny aff. ¶15; Sawyer aff. ¶5; Cassin aff. ¶9; Atkins aff. ¶3; Krause aff. ¶5; Sherer aff. ¶¶15, 24; Basler aff. ¶¶7-8; Early aff. ¶7; Posch aff. ¶7; Chopjian aff. ¶11; Shock aff. ¶7; Schmidt aff. ¶¶7-8; M. Seely aff. ¶4; Topini aff. ¶8).

69. At least three challengers said they were physically pushed away from counting tables by election officials to a distance that was too far to observe the counting. *Id.* (Helminen aff. ¶4; Modlin aff. ¶¶4, 6; Sitek aff. ¶4). Challenger Glen Sitek reported that he was pushed twice by an election worker, the second time in the presence of police officers. *Id.* (Sitek aff. ¶4).

Sitek filed a police complaint.*Id.*

70. Challenger Pauline Montie stated that she was prevented from viewing the computer monitor because election workers kept pushing it further away and made her stand back away from the table. *Id.* (Montie aff. ¶¶4-7). When Pauline Montie told an election worker that she was not able to see the monitor because they pushed it farther away from her, the election worker responded, “too bad.” *Id.* ¶8.

71. Many challengers witnessed Wayne County election officials covering the windows of the TCF Center ballot counting center so that observers could not observe the ballot counting process. *Id.* (A. Seely aff. ¶¶9, 18; Helminen aff. ¶¶9, 12; Deluca aff. ¶13; Steffans aff. ¶22; Frego aff. ¶11; Downing aff. ¶21; Sankey aff. ¶14; Daavettila aff.,p.4;Zimmermanaff.¶10;Krauseaff.¶12;Shereraff.¶22;Johnsonaff.¶7;Poschaff.¶10;Raufaff.¶23 ;Lukeaff.,p.1;M.Seelyaff.¶8;Zelaskoaff.¶8;Ungaraff.¶12;Storm aff. ¶7; Fracassi aff. ¶8; Eilf aff. ¶25; McCall aff.¶9).

4. Harassment, Intimidation & Removal of Republican Challengers

72. Many challengers testified that they were intimidated, threatened, and harassed by election officials during the ballot processing and counting process. *Id.* (Ballew aff. ¶¶7, 9; Gaicobazzi aff. ¶¶12-14 (threatened repeatedly and removed); Schneideraff.,p.1;Piontekaff.¶11;Steffansaff.¶26(intimidationmadeherfeeltoofraid to make challenges); Cizmar aff. ¶8(G); Antonie aff. ¶3; Zaplitny aff. ¶20; Moss aff. ¶4; Daavettila aff., pp. 2-3; Tocco aff. ¶¶1-2; Cavaliere ¶3; Kerstein aff. ¶3; Rose aff. ¶16; Zimmerman aff. ¶5; Langer aff. ¶3; Krause aff. ¶4; Sherer aff. ¶24; Vaupel aff. ¶4; Basler aff. ¶8; Russell aff. ¶5; Burton aff. ¶5; Early aff. ¶7; Pannebecker aff. ¶10; Sitek aff. ¶4; Klamer aff. ¶4; Leonard aff. ¶¶6, 15; Posch aff. ¶¶7, 14; Rauf aff. ¶24; Chopjian aff. ¶10; Cooperaff.¶12;Shockaff.¶9;Schmidtaff.¶¶9-10;Duusaff.¶10;M.Seelyaff.¶4;Storm aff. ¶¶5, 7;

DePerno aff. ¶¶5-6; McCall aff. ¶¶5, 13). Articia Bomera was called a “racist name” by an election worker and also harassed by other election workers. *Id.* (Bomera aff. ¶7). Zachary Vaupel reported that an election supervisor called him an “obscene name” and told him not to ask questions about ballot processing and counting. *Id.* (Vaupel aff. ¶4). Kim Tocco was personally intimidated and insulted by election workers. *Id.* (Tocco aff. ¶¶1-2). Qian Schmidt was the target of racist comments and asked, “what gives you the right to be here since you are not American?” *Id.* (Schmidt aff. ¶9).

73. Other challengers were threatened with removal from the counting area if they continued to ask questions about the ballot counting process. *Id.* (A. Seely aff. ¶¶6, 13, 15; Pennala aff. ¶5). Challenger Kathleen Daavettila observed that Democratic challengers distributed a packet of information among themselves entitled, “Tactics to Distract GOP Challengers.” *Id.* (Daavettila aff., p. 2). An election official told challenger Ulrike Sherer that the election authority had a police SWAT team waiting outside if Republican challengers argued too much. *Id.* (Sherer aff. ¶24). An election worker told challenger Jazmine Early that since “English was not [her] first language... [she] should not be taking part in this process.” *Id.* (Early aff. ¶11).

74. Election officials at the TCF Center in Detroit participated in the intimidation experienced by Republican challengers when election officials would applaud, cheer, and yell whenever a Republican challenger was ejected from the counting area. *Id.* (Helminen aff. ¶9; Pennala aff. ¶5; Ballew aff. ¶9; Piontek aff. ¶11; Papsdorff aff. ¶3; Steffans aff. ¶25; Cizmar aff. ¶8(D); Kilunen aff. ¶5; Daavettila aff., p. 4; Cavaliere aff. ¶3; Cassin aff. ¶10; Langer aff. ¶3; Johnson aff. ¶5; Early aff. ¶13; Klamer aff. ¶8; Posch aff. ¶12; Rauf aff. ¶22; Chopjian aff. ¶13; Shock aff. ¶10).

5. Poll Workers Ignored or Refused to Record Republican Challenges.

75. Unfortunately, this did not happen in Wayne County. Many challengers testified that their challenges to ballots were ignored and disregarded. *Id.* (A. Seely aff. ¶4; Helminen aff. ¶5; Miller aff. ¶¶10-11; Schornak aff. ¶¶9, 15; Piontek aff. ¶6; Daavettilaaff.,p.3; Valiceaff.¶2; Sawyeraff.¶7; Kerstein aff.¶3; Modlinaff.¶4; Cassin aff. ¶6; Brigmon aff. ¶5; Sherer aff. ¶11; Early aff. ¶18; Pannebecker aff. ¶9; Vanker aff. ¶5; M. Seely aff. ¶11; Ungar aff. ¶¶16-17; Fracassi aff. ¶4).

76. As an example of challenges being disregarded and ignored, challenger Alexandra Seely stated that at least ten challenges she made were not recorded. *Id.* (A. Seely aff. ¶4). Articia Bomer observed that ballots with votes for Trump were separated from other ballots. *Id.* (Bomer aff. ¶5). Articia Bomer stated, “I witnessed election workers open ballots with Donald Trump votes and respond by rolling their eyes and showing it to other poll workers. I believe some of these ballots may not have been properly counted.” *Id.* ¶8. Braden Gaicobazzi challenged thirty-five ballots for whom the voter records did not exist in the poll book, but his challenge was ignored and disregarded. *Id.* (Giacobazzi aff. ¶10). When Christopher Schornak attempted to challenge the counting of ballots, an election official told him, “We aren’t talking to you, you cannot challenge this.” *Id.* (Schornak aff. ¶15). When Stephanie Krause attempted to challenge ballots, an election worker told her that challenges were no longer being accepted because the “rules ‘no longer applied.’” *Id.* (Krause aff. ¶13).

6. Unlawful Ballot Duplication.

77. If a ballot is rejected by a ballot-tabulator machine and cannot be read by the machine, the ballot must be duplicated onto a new ballot. The Michigan Secretary of State has instructed, “If the rejection is due to a false read the ballot must be duplicated by *two election*

inspectors who have expressed a preference for different political parties.” Michigan Election Officials’ Manual, ch. 8, p. 6 (emphasis added). Thus, the ballot-duplicating process must be performed by bipartisan teams of election officials. It must also be performed where it can be observed by challengers.

78. But Wayne County prevented many challengers from observing the ballot duplicating process. *Id.* (Miller aff. ¶¶6-8; Steffans aff. ¶¶15-16, 23-24; Mandelbaum aff. ¶6; Sherer aff. ¶¶16-17; Burton aff. ¶7; Drzewieckiaff. ¶7; Klamer aff. ¶9; Chopjian aff. ¶10; Schmidtaff. ¶7; Champagne aff. ¶12; Shinkle aff., p.1). Challenger John Miller said he was not allowed to observe election workers duplicating a ballot because the “duplication process was person like voting.” *Id.* (Miller aff. ¶8). Challenger Mary Shinkle stated that she was told by an election worker that she was not allowed to observe ballot duplication because “if we make a mistake then you would be all over us.” *Id.* (Shinkle aff., p. 1). Another challenger observed election officials making mistakes when duplicating ballots. *Id.* (Piontek aff. ¶9).

79. Many challengers testified that ballot duplication was performed only by Democratic election workers, not bipartisan teams. Exhibit 1 (Pettibone aff. ¶3; Kinney aff., p.1; Wasilewski aff., p.1; Schornak aff. ¶¶18-19; Dixon aff., p.1; Kolanagireddy aff., p. 1; Kordenbrock aff. ¶¶3-4; Seidl aff., p. 1; Kerstein aff. ¶4; Harris aff. ¶3; Sitek aff. ¶4).

7. Democratic Election Challengers Frequently Outnumbered Republican Poll Watchers 2:1 or Even 2:0.

80. Dominion contractor Melissa Carrone testified that there were significantly more Democrats than Republicans at the TCF Center, and that as a result there were “over 20 machines [that] had two democrats judging the ballots-resulting in an unfair process.” Exh. 5 ¶5.

Other affiants testified to the fact that Democrats outnumbered Republicans by 2:1 or more *Id.* (Helminon aff. ¶12). Democrats also impersonated Republican poll watchers. *Id.* (Seely aff. ¶19).

8. Collaboration Between Election Workers, City/County Employees, and Democratic Party Challengers and Activists.

81. Affiants testified to systematic and routine collaboration between election workers, Michigan public employees and Democratic election challengers and activists present, in particular to intimidate, harass, distract or remove Republic election watchers. *See, e.g.*, Exh. 1 (Ballow aff. ¶9; Gaicobazzi aff. ¶¶12, 14; Piontek aff. ¶11).

B. Election Workers Fraudulent Forged, Added, Removed or Otherwise Altered Information on Ballots, Qualified Voter List and Other Voting Records

82. A lawsuit recently filed by the Great Lakes Justice Center (“GLJC”) raises similar allegations of vote fraud and irregularities that occurred in Wayne County. *See* Exhibit 4 (copyofcomplaintfiledintheCircuitCourtofWayneCountyinCostantino,etal.v.City of Detroit, et al.) (“GLJC Complaint”).The allegations and affidavits included in the GLJC Complaint are incorporated by reference in the body of this Complaint.

1. Election Workers Fraudulently Added “Tens of Thousands” of New Ballots and New Voters in the Early Morning and Evening November 4.

83. The most egregious example of election workers fraudulent and illegal behavior concerns two batches of new ballots brought to the TCF Center after the 8:00 PM Election Day deadline. First, at approximately 4:30 AM on November 4, 2020, poll challenger Andrew Sitto observed “tens of thousands of new ballots” being brought into the counting room, and “[u]nlike the other ballots, these boxes were brought in from the rear of the room.” Exh. 4, GLJC Complaint, Exh. C at ¶ 10. Mr. Sitto heard other Republican challengers state that “several

vehicles with out-of-state license plates pulled up to the TCF Center a little before 4:30 a.m. and unloaded boxes of ballots.” *Id.* at ¶ 11. “All ballots sampled that I heard and observed were for Joe Biden.” *Id.* at ¶ 12.

84. A second set of new boxes of ballots arrived at the TCF Center around 9:00 PM on November 4, 2020. According to poll watcher Robert Cushman, contained “several thousand new ballots.” Exh. 4, GLJC Complaint, Exh. D at ¶ 5. Mr. Cushman noted that “none of the names on the new ballots were on the QVF or the Supplemental Sheets,” *id.* at ¶ 7, and he observed “computer operators at several counting boards manually adding the names and addresses of these thousands of ballots to the QVF system.” *Id.* at ¶ 8. Further, “[e]very ballot was being fraudulently and manually entered into the [QVF], as having been born on January 1, 1990.” *Id.* at ¶ 15. When Mr. Cushman challenged the validity of the votes and the impossibility of each ballot having the same birthday, he “was told that this was the instruction that came down from the Wayne County Clerk’s office.” *Id.* at ¶ 16.

85. Perhaps the most probative evidence comes from Melissa Carone, who was “contracted to do IT work at the TCF Center for the November 3, 2020 election.” Exh. 5, ¶1. On November 4, Ms. Carrone testified that there were “two vans that pulled into the garage of the counting room, one on day shift and one on night shift.” *Id.* ¶8. She thought that the vans were bring food, however, she “never saw any food coming out of these vans,” and noted the coincidence that “Michigan had discovered over 100,000 more ballots – not even two hours after the last van left.” *Id.* Ms. Carrone witnessed this of this illegal vote dump, as well as several other violations outlined below.

2. Election Workers Forged and Fraudulently Added Voters to the Qualified Voter List.

86. Many challengers reported that when a voter was not in the poll book, the election

officials would enter a new record for that voter with a birth date of January 1, 1900. Exhibit 1 (Gaicobazzi aff. ¶10; Piontek aff. ¶10; Cizmer aff. ¶8(F); Wirsing aff., p. 1; Cassin aff. ¶9; Langer aff. ¶3; Harris aff. ¶3; Brigmon aff. ¶5; Sherer aff. ¶¶10-11; Henderson aff. ¶9; Early ¶16; Klamer aff. ¶13; Shock aff. ¶8; M. Seely aff. ¶9). *See also id.* (Gorman aff. ¶¶23-26; Chopjian aff. ¶12; Ungar aff. ¶15; Valden aff. ¶17). Braden Gaicobazzi reported that a stack of thirty-five ballots was counted even though there was no voter record. *Id.* (Giacobazzi aff.¶10).

87. The GLJC Complaint alleges the Detroit Election Commission “systematically processed and counted ballots from voters whose name failed to appear in either the Qualified Voter File (QVF) or in the supplemental sheets.” Exh. 3, GLJC Complaint at 3. The GLJC Complaint provides additional witness affidavits detailing the fraudulent conduct of election workers, in particular, that of Zachary Larsen, who served as a Michigan Assistant Attorney General from 2012 through 2020 and was a certified poll challenger at the TCF Center. “Mr. Larsen reviewed the running list of scanned in ballots in the computer system, where it appeared that the voter had already been counted as having voted. An official operating the computer then appeared to assign this ballot to a different voter as he observed a completely different name that was added to the list of voters at the bottom of a running tab of processed ballots on the right side of the screen.” *Id.* at ¶ 16. Mr. Larsen observed this “practice of assigning names and numbers” to non-eligible voters who did not appear in either the poll book or the supplement poll book. *Id.* at ¶ 17. Moreover, this appeared to be the case for the majority of the voters whose ballots he personally observed being scanned. *Id.*

3. Changing Dates on Absentee Ballots.

88. All absentee ballots that existed were required to be inputted into the QVF system by 9:00 p.m. on November 3, 2020. This was required to be done in order to have a final list of absentee voters who returned their ballots prior to 8:00 p.m. on November 3, 2020. In order to

have enough time to process the absentee ballots, all polling locations were instructed to collect the absentee ballots from the drop-box once every hour on November 3, 2020.

89. Jessica Connarn is an attorney who was acting as a Republican challenger at the TCF Center in Wayne County. **EXHIBIT 6.** Jessica Connarn's affidavit describes how an election poll worker told Jessica Connarn that the poll worker "was being told to change the date on ballots to reflect that the ballots were received on an earlier date." *Id.* ¶1. Jessica Connarn also provided a photograph of a note handed to her by the poll worker in which the poll worker indicated she (the poll worker) was instructed to change the date ballots were received. *See id.* Jessica Connarn's affidavit demonstrates that poll workers in Wayne County were pre-dating absentee voter ballots, so that absentee voter ballots received after 8:00 p.m. on Election Day could be counted.

90. Plaintiffs have learned of a United States Postal Service ("USPS") worker Whistleblower, on November 4, 2020 told Project Veritas that a supervisor named Johnathan Clarke in Traverse City, Michigan potentially issued a directive to collect ballots and stamp them as received on November 3, 2020, even though they were not received timely, as required by law: "We were issued a directive this morning to collect any ballots we find in mailboxes, collection boxes, just outgoing mail in general, separate them at the end of the day so that they could hand stamp them with the previous day's date," the whistleblower stated. "Today is November 4th for clarification."⁴ This is currently under IG Investigation at the U.S. Post Office. According to the Postal worker whistleblower, the ballots are in "express bags" so they could be sent to the USPS distribution center. *Id.*

91. As set forth in the GLJC Complaint and in the Affidavit of Jessy Jacob, an

⁴<https://townhall.com/tipsheet/bethbaumann/2020/11/04/usps-whistleblower-in-michigan-claims-higher-ups-were-engaging-in-voter-fraud-n2579501>

employee of the City of Detroit Elections Department, “on November 4, 2020, I was instructed to improperly pre-date the absentee ballots receive date that were not in the QVF as if they had been received on or before November 3, 2020. I was told to alter the information in the QVF to falsely show that the absentee ballots had been received in time to be valid. She estimates that this was done to thousands of ballots.” Exh. 4, GLJC Complaint, Exh. B at ¶ 17.

4. Election Workers Changed Votes for Trump and Other Republican Candidates.

92. Challenger Articia Bomer stated, “I observed a station where election workers were working on scanned ballots that had issues that needed to be manually corrected. I believe some of these workers were changing votes that had been cast for Donald Trump and other Republican candidates.” *Id.* (Bomer aff. ¶9). In addition to this eyewitness testimony of election workers manually changing votes for Trump to votes for Biden, there is evidence that Dominion Voting Systems did the same thing on a much larger scale with its Dominion Democracy Suite software. *See generally infra* Section IV.D, Paragraphs 123-131.

5. Election Officials Added Votes and Removed Votes from “Over-Votes”.

93. Another challenger observed over-votes on ballots being “corrected” so that the ballots could be counted. Exh. 3 (Zaplitny aff. ¶13). At least one challenger observed poll workers adding marks to a ballot where there was no mark for any candidate. *Id.* (Tyson aff. ¶17).

C. Additional Violations of Michigan Election Code That Caused Ineligible, Illegal or Duplicate Ballots to Be Counted.

1. Illegal Double Voting.

94. At least one election worker “observed a large number of people who came to the satellite location to vote in-person, but they had

already applied for an absentee ballot. These people were allowed to vote in-person and were not required to return the mailed absentee ballot or sign an affidavit that the voter lost the mailed absentee ballot.” Exh. 4, GLJC Complaint (Exh. B) Jacob aff. at ¶ 10. This would permit a person to vote in person and also send in his/her absentee ballot, and thereby vote at least twice.

2. Ineligible Ballots Were Counted – Some Multiple Times.

95. Challengers reported that batches of ballots were repeatedly run through the vote tabulation machines. Exh. 3 (Helminen aff. ¶4; Waskilewski aff., p. 1; Mandelbaum aff. ¶5; Rose aff. ¶¶4-14; Sitek aff. ¶3; Posch aff. ¶8; Champagne aff. ¶8). Challenger Patricia Rose stated she observed a stack of about fifty ballots being fed multiple times into a ballot scanner counting machine. *Id.* (Rose aff. ¶¶4-14). Articia Bomer further stated that she witnessed the same group of ballots being rescanned into the counting machine “at least five times.” *Id.* ¶12. Dominion contractor Melissa Carone observed that this was a routine practice at the TCF Center, where she “witnessed countless workers rescanning the batches without discarding them first” – as required under Michigan rules and Dominion’s procedures – “which resulted in ballots being counted 4-5 times” by the “countless” number of election workers. Carone aff. ¶3. When she observed that a computer indicated that it had “a number of over 400 ballots scanned – which means one batch [of 50] was counted over 8 times,” and complained to her Dominion supervisor, she was informed that “we are here to do assist with IT work, not to run their election.” *Id.* at ¶4.

3. Ballots Counted with Ballot Numbers Not Matching Ballot Envelope.

96. Many challengers stated that the ballot number on the ballot did not match the number on the ballot envelope, but when they raised a challenge, those challenges were disregarded and ignored by election officials, not recorded, and the ballots were processed and counted. Exh. 3(A. Seely aff. ¶15; Wasilewski aff., p. 1; Schornak aff. ¶13; Brunell aff. ¶¶17, 19;

Papsdorf aff. ¶3; Spalding aff. ¶¶8, 11; Antonie aff. ¶3; Daavettila aff., p. 3; Atkins aff. ¶3; Harris aff. ¶3; Sherer aff. ¶21; Drzewiecki aff. ¶¶5-6; Klamer aff. ¶4; Rauf aff. ¶¶9-14; Roush aff. ¶¶5-7; Kinney aff. ¶5). For example, when challenger Abbie Helminen raised a challenge that the name on the ballot envelope did not match the name on the voter list, she was told by an election official to “get away” and that the counting table she was observing had “a different process than the other tables.” *Id.* (Helminen aff. ¶5).

4. Election Officials Counted Ineligible Ballots with No Signatures or with No Postmark on Ballot Envelope.

97. At least two challengers observed ballots being counted where there was no signature or postmark on the ballot envelope. *Id.* (Brunell aff. ¶¶17, 19; Spalding aff. ¶13; Sherer aff. ¶13). Challenger Anne Vanker observed that “60% or more of [ballot] envelopes [in a batch] bore the same signature on the opened outer envelope.” *Id.* (Vanker aff. ¶5). Challenger William Henderson observed that a counting table of election workers lost eight ballot envelopes. Exhibit 1 (Henderson aff. ¶8). The GLJCC Complaint further alleges the Election Commission “instructed election workers to not verify signatures on absentee ballots, to backdate absentee ballots, and to process such ballots regardless of their validity.”

5. Election Officials Counted “Spoiled” Ballots.

98. At least two challengers observed spoiled ballots being counted. *Id.* (Schornak aff. ¶¶6-8; Johnson aff. ¶4). At least one challenger observed a box of provisional ballots being placed in a tabulation box at the TCF Center. Exhibit 1 (Cizmar aff. ¶5).

6. Systematic Violations of Ballot Secrecy Requirements

99. Affiant Larsen identified a consistent practice whereby election officials would remove ballots from the “secrecy sleeve” or peek into the envelopes, visually inspect the ballots, and based on this visual inspection of the ballot (and thereby identify the votes cast), determine

whether to “place the ballot back in its envelope and into a ‘problem ballots’ box that required additional attention to determine whether they would be processed and counted.” Exh. 4, GLJC Complaint, Exh. A at ¶14. Mr. Larsen also observed that some ballots arriving without any secrecy sleeve at all were counted after visual inspection, whereas many ballots without a secrecy sleeve were placed in the “problem ballots” box. *Id.* at ¶¶21-22. “So the differentiation among these ballots despite both ballots arriving in secrecy sleeves was perplexing and again raised concerns that some ballots were being marked as ‘problem ballots’ based on who the person had voted for rather on any legitimate concern about the ability to count and process the ballot appropriately.” *Id.* at ¶24.

7. Election Workers Accepted Unsecured Ballots, without Chain of Custody, after 8:00 PM Election Day Deadline.

100. Poll challengers observed two batches of new ballots brought to the TCF Center after the 8:00 PM Election Day deadline, as detailed in the GLJC Complaint and Paragraphs 79-81above. Affiant Daniel Gustafson further observed that these batches of ballots “were delivered to the TCF Center in what appeared to be mail bins with open tops.” Exh. 4, GLJC Complaint, Exh. E at¶4. Mr. Gustafson further observed that these bins and containers “did not have lids, were not sealed, and did not have the capability of having a metal seal,” *id.* at ¶5, nor were they “marked or identified in any way to indicated their source of origin.” *Id.* at ¶6.

101. An election challenger at the Detroit Department of Elections office observed passengers in cars dropping off more ballots than there were people in the car. Exh. 3 (Meyers aff. ¶3). This challenger also observed an election worker accepting a ballot after 8:00 p.m. on Election Day. *Id.*¶7.

102. An election challenger at the Detroit Department of Elections office observed ballots being deposited in a ballot drop box located at the Detroit Department of Elections after

8:00 p.m. on Election Day. *Id.* (Meyers aff.¶6).

103. On November 4, 2020, Affiant Matt Ciantar came forward who, independently witnessed, while walking his dog, a young couple delivered 3-4 large plastic clear bags, that appear to be “express bags”, as reflected in photographs taken contemporaneously, to a U.S. Postal vehicle waiting. *See generally* Exh. 7 Matt Ciantar Declaration. The use of clear “express bags” is consistent with the USPS whistleblower Johnathan Clarke in Traverse City, Michigan. *See infra* Paragraph 78.

8. Ballots from Deceased Voters Were Counted.

104. One Michigan voter stated that her deceased son has been recorded as voting twice since he passed away, most recently in the 2020 general election. Exh. 3 (Chase aff.¶3).

III. EXPERT WITNESS TESTIMONY SUPPORTING INDICATING WIDESPREAD VOTING FRAUD AND MANIPULATION

A. Approximately 30,000 Michigan Mail-In Ballots Were Lost, and Approximately 30,000 More Were Fraudulently Recorded for Voters who Never Requested Mail-In Ballots.

105. The attached report of William M. Briggs, Ph.D. (“Dr. Briggs Report”) summarizes the multi-state phone survey data of 248 Michigan Republican voters collected by Matt Braynard, which was conducted from November 15-17, 2020 and covered voters in Arizona, Georgia, Michigan, Pennsylvania, and Wisconsin. *See* Exh. 101, Dr. Briggs Report at 1, and Att. 1 (“Braynard Survey”). The Braynard Survey sought to identify two specific errors involving unreturned mail-in ballots that are indicative of voter fraud, namely: “**Error #1:** those who were recorded as receiving absentee ballots *without* requesting them;” and “**Error #2:** those who returned absentee ballots but whose votes went missing (*i.e.*, marked as unreturned).” *Id.* Dr. Briggs then conducted a parameter-free predictive model to estimate, within 95% confidence or prediction intervals, the number of ballots affected by these errors out of a total of 139,190

unreturned mail-in ballots for the State of Michigan.

106. With respect to **Error #1**, Dr. Briggs analysis estimated that **29,611 to 36,529 ballots** out of the total 139,190 unreturned ballots (**21.27% - 26.24%**) were recorded for voters who had **not** requested them. *Id.* With respect to **Error #2**, the numbers are similar with **27,928 to 34,710 ballots** out of 139,190 unreturned ballots (**20.06% - 24.93%**) recorded for voters who **did return their ballots were recorded as being unreturned.** *Id.* Taking the average of the two types of errors together, **62,517 ballots, or 45% of the total, are “troublesome.”**

107. These errors are not only conclusive evidence of widespread fraud by the State of Michigan,⁵ but they are fully consistent with the fact witness statements above the evidence regarding Dominion presented below insofar as **these purportedly unreturned absentee ballots provide a pool of 60,000-70,000 unassigned and blank ballots that could be filled in by Michigan election workers, Dominion or other third parties to shift the election to Joe Biden.** With respect to Error #1, Dr. Briggs’ analysis, combined with the statements of the Michigan voters in the Braynard Survey, demonstrates that approximately **30,000 absentee ballots were sent to someone besides the registered voter named in the request**, and thus could have been filled out by anyone and then submitted in the name of another voter. With respect to Error #2, Dr. Briggs’ analysis indicates that approximately **30,000 absentee ballots were either lost or destroyed** (consistent with allegations of Trump ballot destruction) **and/or were replaced with blank ballots filled out by election workers, Dominion or other third parties.** Accordingly, Dr. Briggs’ analysis showing that almost half of purportedly “unreturned

⁵The only other possible explanations for the statements of 248 Michigan mail-in voters included in the Braynard Survey data is (a) that the 248 voters (who had no known pre-existing relationship apart from being listed as having unreturned absentee ballots) somehow contrived to collude together to submit false information or (b) that these 248 suffered from amnesia, dementia or some other condition that caused them to falsely claim that they had requested a mail-in ballot or returned a mail-in ballot.

ballots” suffers from one of the two errors above – which is consistent with his findings in the four other States analyzed (Arizona 58%, Georgia 39%, Pennsylvania 37%, and Wisconsin 31%) – provides further support that these widespread “irregularities” or anomalies was one part of much larger interstate fraudulent scheme to rig the 2020 General Election for Joe Biden.

B. Statistical Analysis of Anomalous and Unprecedented Turnout Increases in Specific Precincts Indicate that There Were at Least 40,000 “Excess Voters” in Wayne County and At Least 46,000 in Oakland County.

108. The attached affidavit of Eric Quinell, Ph.D. (“Dr. Quinell Report”) analyzes the extraordinary increase in turnout from 2016 to 2020 in a relatively small subset of townships and precincts outside of Detroit in Wayne County and Oakland County, and more importantly how nearly 100% or more of all “new” voters from 2016 to 2020 voted for Biden. *See* Exh. 102. Using publicly available information from Wayne County and Oakland County, Dr. Quinell first found that for the votes received up to the 2016 turnout levels, the 2020 vote Democrat vs. Republican two-ways distributions (i.e., excluding third parties) tracked the 2016 Democrat vs. Republican distribution very closely, which was 55%-45% for Wayne County (outside Detroit) and 54%/46% for Oakland County. *Id.* at ¶¶18 & 20.

109. However, after the 2016 turnout levels were reached, the Democrat vs. Republican vote share shifts decisively towards Biden by approximately 15 points, resulting in a 72%/28% D/R split for Oakland County and 70%/30% D/R split for Wayne County (outside of Detroit). What is even more anomalous – and suspicious – is the fact that nearly all of these “new” votes in excess of 2016 come from a small number of townships/precincts where the increased Biden vote share is nearly 100% or over 100% for Biden. *Id.* For example, in the township of Livonia in Wayne County, Biden gained 3.2 voters for every 1 new Trump voter, and Biden receive 97% of all “new” votes over 2016 and 151% of all new voter registrations. *Id.* at ¶6. In the township of Troy in Oakland County, the vote share shifted from 51%/49% in 2016

to 80%/20% in 2020 due to Biden receiving 98% of new votes above 2016 and 109% of new voter registrations. *Id.* at ¶20. Looking county-wide, Biden gained 2.32 new voters over 2016 levels to every 1 new Trump voter in Wayne County (outside Detroit) and 2.54 additional new voters per Trump voter for Oakland County. *Id.* ¶5.

110. Based on these statistically anomalous results that occurred in a handful of townships in these two counties, Dr. Quinell’s model determined that there were 40,771 anomalous votes in Wayne County (outside Detroit) and 46,125 anomalous votes in Oakland County, for a total of nearly 87,000 anomalous votes or approximately 65% of Biden’s purported lead in Michigan.

C. Over 13,000 Ineligible Voters Who Have Moved Out-of-State Illegally Voted in Michigan.

111. Evidence compiled by Matt Braynard using the National Change of Address (“NCOA”) Database shows that 12,120 Michigan voters in the 2020 General Election moved out-of-state prior to voting, and therefore were ineligible. Mr. Braynerd identified 1,170 Michigan voters in the 2020 General Election who subsequently registered to vote in another state, and were therefore ineligible to vote in the 2020 General Election. When duplicates from the two databases are eliminated, the merged number is 13,248 ineligible voters whose votes must be removed from the total for the 2020 General Election.⁶

D. There Were At Least 289,866 More Ballots Processed in Four Michigan Counties on November 4 Than There Was Processing Capacity.

112. The expert witness testimony of Russell James Ramsland, Jr. (“Ramsland Affidavit”), which is described in greater detail below, identifies an event that occurred in Michigan on November 4 that is “physically impossible” *See* Exh. 104 at ¶14. The “event”

⁶Mr. Braynard posted the results of his analysis on Twitter. *See* <https://twitter.com/MattBraynard/status/1329700178891333634?s=20>. This Complaint includes a copy of his posting as Exhibit 103.

reflected in the data are “4 spikes totaling 384,733 ballots allegedly processed in a combined interval of 2 hour[s] and 38 minutes” for four precincts/townships in four Michigan counties (Wayne, Oakland, Macomb ne and Kent). *Id.* Based on Mr. Ramsland’s analysis of the voting machines available at the referenced locations, he determined that the maximum processing capability during this period was only 94,867 ballots, so that “there were 289,866 more ballots processed in the time available for processing in the four precincts/townships, than there was processing capacity.” *Id.* This amount is alone is **nearly twice the number of ballots by which Biden purportedly leads President Trump** (*i.e.*, approximately 154,180).

IV. FACTUAL ALLEGATIONS RE DOMINION VOTING SYSTEMS

A. Evidence of Specific Fraud Wayne County used ballot tabulators that were shown to miscount votes cast for President Trump and Vice President Pence and instead count them for the Biden-Harristicket.

113. On the morning of November 4, unofficial results posted by the Antrim County Clerk showed that Joe Biden had over 7,700 votes — 3,000 more than Donald Trump. Antrim County voted 62% in favor of President Trump in 2016. The Dominion Voting Systems election management system and voting machines (tabulators), which were used in Antrim County, are also used in many other Michigan counties, including Wayne County, were atfault.

114. However, Malfunctioning voting equipment or defective ballots may have affectedtheoutcomeofavoteonanofficeappearingontheballot.”MichiganManualfor Boards of County Canvassers. Thesevotetabulatorfailuresareamechanicalmalfunctionthat,underMCL 168.831-168.839, requires a “special election” in the precincts affected.

115. SecretaryofStateBensonreleasedastatementblamingthecountyclerkfor notupdatingcertain“mediadrives,”butherstatementfailedtoprovideanycoherentexplanation of how

the Dominion Voting Systems software and vote tabulators produced such a massive miscount.⁷

116. Secretary Benson continued: “*After discovering the error in reporting the unofficial results, the clerk worked diligently to report correct unofficial results by reviewing the printed totals tape on each tabulator and hand-entering the results for each race, for each precinct in the county.*”*Id.* What Secretary Benson fails to address is what would have happened if no one “discover[ed] the error,” for instance, in Wayne County, where the number of registered voters is much greater than Antrim County, and where the tabulators were not individually tested.

117. Wayne County used the same Dominion voting system tabulators as did Antrim County, and Wayne County tested only a single one of its vote tabulating machines before the election. The Trump campaign asked Wayne County to have an observer physically present to witness the process. *See* Exhibit 4. Wayne County denied the Trump campaign the opportunity to be physically present. Representatives of the Trump campaign did have opportunity to watch a portion of the test of a single machine by Zoom video.

B. The Pattern Of Incidents Shows An Absence Of Mistake - Always In The Favor Of Biden.

118. Rules of Evidence, 404(b), applicable to civil matters makes clear that,

(b) Evidence of other crimes, wrongs, or acts shall not be admissible to prove the character of a person in order to show action in conformity therewith. **It may, however, be admissible for other purposes, including, but not limited to, proof of motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake or accident.**

119. Tabulator issues and election violations occurred elsewhere in Michigan reflecting a pattern, where multiple incidents occurred. In Oakland County, votes flipped a seat to an incumbent Republican, Adam Kochenderfer, from the Democrat challenger when

⁷ https://www.michigan.gov/documents/sos/Antrim_Fact_Check_707197_7.pdf (emphasis in original).

120. “A computer issue in Rochester Hills caused them to send us results for seven precincts as both precinct votes and absentee votes. They should only have been sent to us as absentee votes,” Joe Rozell, Oakland County Director of Elections for the City of Huntington Woods, said.⁸

121. This Oakland County flip of votes is significant not only because it reflects a second systems error wherein both favored the Democrats, precinct votes were sent out to be counted, and they were counted twice as a result until the error was caught on a recount, but precinct votes should never be counted outside of the precinct, instead they are required to be sealed in the precinct.

C. Dominion Voting Machines and Forensic Evidence of Wide-Spread Fraud in Defendant Counties

122. The State of Michigan entered into a contract with Dominion Systems’ Democracy Suite 4.14-D first, and then included Dominion Systems Democracy Suite 5.0-S on or about January 27, 2017, which added a fundamental modification: “dial-up and wireless results transmission capabilities to the ImageCast Precinct and results transmission using the Democracy Suite EMS Results Transfer Manager module.”

123. Whereas the same Dominion software in an updated contract with Pennsylvania, unlike in Michigan’s contract, sets forth the standard as requiring physical security: *No components of the Democracy Suite 5.5A shall be connected to any modem or network interface, including the Internet, at any time, except when a standalone local area wired network configuration in which all connected devices are certified voting system components.*” *Id.* at 41 (Condition C).

124. The Michigan Contract with Dominion Voting Systems Democracy packages

⁸ Detroit Free Press, <https://www.freep.com/story/news/local/michigan/oakland/2020/11/06/oakland-county-election-2020-race-results/6184186002/>

include language that describes *Safety and Security*, which in part makes the risks of potential breach clear where keys can be lost despite the fact that they provide full access to the unit, and while it is clear that the electronic access provides control to the unit, and the ability to alter results, combined with the lack of observers, creates a lack of security that becomes part of a pattern of the absence of mistake, or fraud:

The ImageCast tabulators are unlocked by an iButton security key, which is used to:

- Authenticate the software version (ensuring it is a certified version that has not been tampered with)
- Decrypt election files while processing ballots during the election
- Encrypt results files during the election
- Provide access control to the unit

It is anticipated that the iButton security keys may get lost; therefore, any substitute key created for the same tabulator will allow the unit to work fully.⁹

125. In late December of 2019, three Senators, Warren, Klobuchar, Wyden and House Member Mark Pocan wrote about their ‘*particularized concerns that secretive & “trouble - plagued companies”*’ “have long skimmed on security in favor of convenience,” in the context of how they described the voting machine systems that three large vendors – Election Systems & Software, Dominion Voting Systems, & Hart InterCivic – collectively provide voting machines & software that facilitate voting for over 90% of all eligible voters in the U.S.”

126. As evidence of the risks of the Dominion Democracy Suite, as described above, the same Dominion Democracy Suite was denied certification in Texas by the Secretary of State on January 24, 2020 specifically because of a lack of evidence of efficiency and accuracy and

⁹See Exh. 8, State of Michigan Enterprise Procurement, Notice of Contract, Contract No. 071B770017 between the State of Michigan and Dominion Voting Systems Inc. at ¶2.6.2 (“Dominion Michigan Contract”).

identified vulnerabilities to **fraud and unauthorized manipulation**.¹⁰

D. “Red Flags” in Dominion’s Michigan Results for 2020 General Election Demonstrate Dominion Manipulated Election Results, and that the Number of Illegal Votes Is Nearly Twice As Great as Biden’s Purported Margin of Victory.

127. The expert witness testimony of Russell James Ramsland, Jr. (“Ramsland Affidavit”)¹¹ analyzes several “red flags” in Dominion’s Michigan results for the 2020 election, and flaws in the system architecture more generally, to conclude that Dominion manipulated election results. Dominion’s manipulation of election results enabled Defendants to engage in further voting fraud violations above and beyond the litany of violations recited above in Section II.A through Section II.C.

1. Antrim County “Glitch” Was Not “Isolated Error” and May Have Affected Other Counties.

128. The first red flag is the Antrim County, Michigan “glitch” that switched 6,000 Trump ballots to Biden, and that was only discoverable through a manual hand recount. *See supra* Paragraph 94. The “glitch” was later attributed to “clerical error” by Dominion and Antrim County, presumably because if it were correctly identified as a “glitch”, “the system would be required to be ‘recertified’ according to Dominion officials. This was not done.” Exh. 104, Ramsland Aff. at ¶10. Mr. Ramsland is skeptical because “the problem most likely did occur due to a glitch where an update file did not properly synchronize the ballot barcode generation and reading portions of the system.” *Id.* Further, **such a glitch would not be an**

¹⁰ See Texas Analysis of February 15, 2019 from the Voting Systems Examiner to the Director of Elections (emphasis added).

¹¹As detailed in the Ramsland Affidavit and the CV attached thereto, Mr. Ramsland is a member of the management team Allied Security Operations Group, LLC (“ASOG”), a firm specializing in cybersecurity, OSINT and PEN testing of networks for election security and detecting election fraud through tampering with electronic voting systems.

“isolated error,” as it “would cause entire ballot uploads to read as zero in the tabulation batch, which we also observed happening in the data (provisional ballots were accepted properly but in-person ballots were being rejected (zeroed out and/or changed (flipped)).” *Id.* Accordingly, Mr. Ramsland concludes that it is likely that other Michigan counties using Dominion may “have the same problem.” *Id.*

2. Fractional Vote Counts in Raw Data Strongly Indicate Voting Manipulation through “Ranked Choice Voting Algorithm”

129. Mr. Ramsland’s analysis of the raw data , which provides **votes counts, rather than just vote shares, in decimal form** provides highly probative evidence that, in his professional opinion, demonstrates that Dominion manipulated votes through the use of an “additive” or “Ranked Choice Voting” algorithm (or what Dominion’s user guide refers to as the “RCV Method”). *See id.* at ¶12.¹² Mr. Ramsland presents the following example of this data – taken from “Dominion’s direct feed to news outlets” – in the table below. *Id.*

state	timestamp	eevp	trump	biden	TV	BV
michigan	2020-11-04T06:54:48Z	64	0.534	0.448	1925865.66	1615707.52
michigan	2020-11-04T06:56:47Z	64	0.534	0.448	1930247.664	1619383.808
michigan	2020-11-04T06:58:47Z	64	0.534	0.448	1931413.386	1620361.792
michigan	2020-11-04T07:00:37Z	64	0.533	0.45	1941758.975	1639383.75
michigan	2020-11-04T07:01:46Z	64	0.533	0.45	1945297.562	1642371.3
michigan	2020-11-04T07:03:17Z	65	0.533	0.45	1948885.185	1645400.25

130. Mr. Ramsland describes how the RCV algorithm can be implemented, and the significance of the use of fractional vote counts, with decimal places, rather than whole numbers, in demonstrating that Dominion did just that to manipulate Michigan votes.

¹²*See id.* (quoting Democracy Suite EMS Results Tally and Reporting User Guide, Chapter 11, Settings 11.2.2., which reads, in part, “RCV METHOD: This will select the specific method of tabulating RCV votes to elect a winner.”).

For instance, blank ballots can be entered into the system and treated as “write-ins.” Then the operator can enter an allocation of the write-ins among candidates as he wishes. The final result then awards the winner based on “points” the algorithm in the compute, not actual votes. The fact that we observed raw vote data that includes decimal places suggests strongly that this was, in fact, done. Otherwise, votes would be solely represented as whole numbers. Below is an excerpt from Dominion’s direct feed to news outlets showing actual calculated votes with decimals. *Id.*

3. Strong Evidence That Dominion Shifted Votes from Trump to Biden.

131. A third red flag identified by Mr. Ramslund is the dramatic shift in votes between the two major party candidates as the tabulation of the turnout increased, and more importantly, the change in voting share before and after 2 AM on November 4, 2020, after Wayne County and other Michigan election officials had supposedly halted counting.

Until the tabulated voter turnout reached approximately 83%, Trump was generally winning between 55% and 60% of every turnout point. **Then, after the counting was closed at 2:00 am, the situation dramatically reversed itself, starting with a series of impossible spikes shortly after counting was supposed to have stopped.** *Id.* at ¶13.

132. Once again the means through which Dominion appears to have implemented this scheme is through the use of blank ballots that were all, or nearly all, cast for Biden.

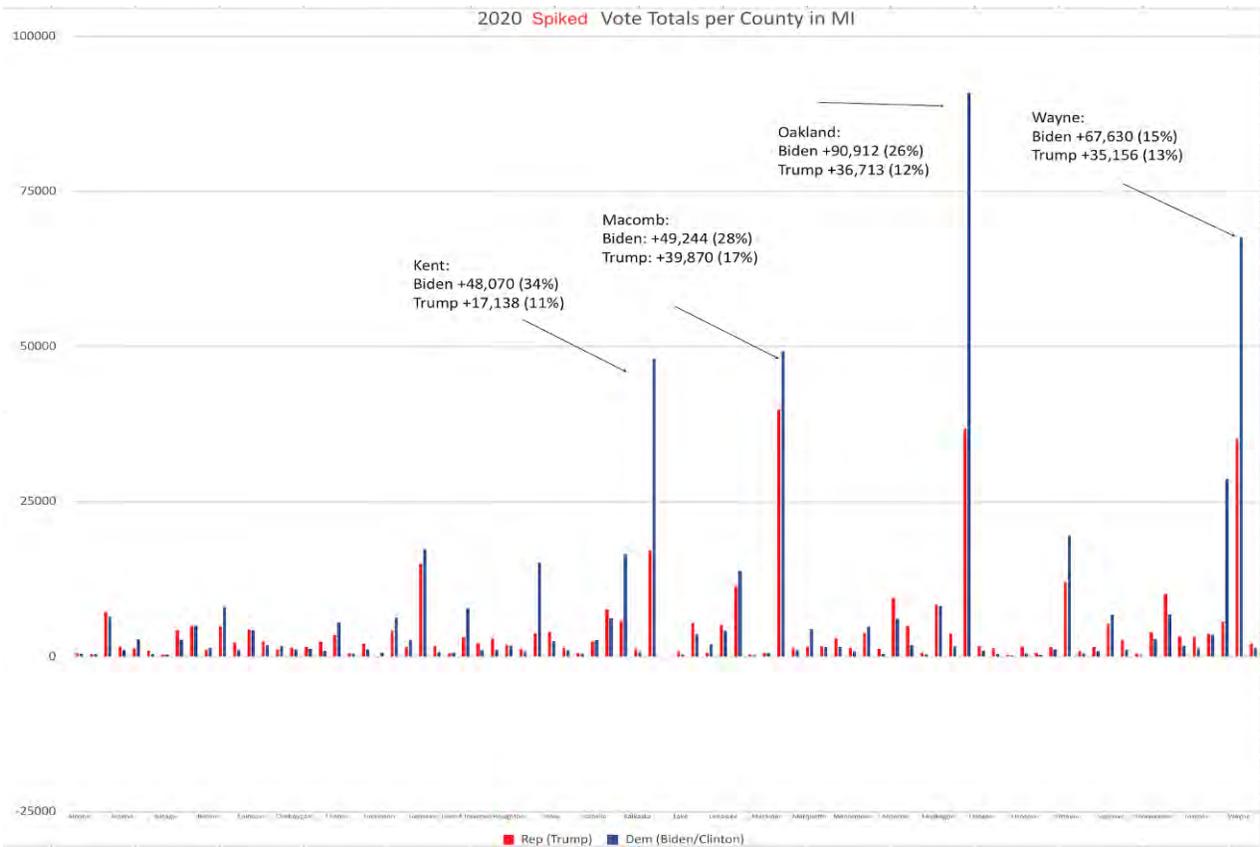
The several spikes cast solely for Biden could easily be produced in the Dominion system by pre-loading batches of blank ballots in files such as Write-Ins, then casting them all for Biden using the Override Procedure (to cast Write-In ballots) that is available to the operator of the system. A few batches of blank ballots could easily produce a reversal this extreme, a reversal that is almost as statistically difficult to explain as is the impossibility of the votes cast to number of voters described in Paragraph 11 above.*Id.*

4. The November 4 Ballot Dumps Wayne County and Other Michigan Counties Was “Physically Impossible” Because There Were More Ballots Than Machines in Those Four Counties Could Have Counted Or Processed.

133. Mr Ramsland and his team analyzed the sudden injection of totaling 384,733 ballots by four Michigan counties (Wayne, Oakland, Macomb, and Kent) in a 2 hour 38 minute period in the early morning of November 4 (which would have included the first ballot dump

described above in Paragraph 72), and concluded that “[t]his is an impossibility, given the equipment available at the 4 reference locations (precincts/townships).” *Id.* at ¶14.

134. Specifically, Mr. Ramslund calculated that “94,867 ballots as the maximum number of ballots that could be processed” in that time period, and thus that “[t]here were 289,866 more ballots processed in the time available for processing in four precincts/townships, than the capacity of the system allows.” *Id.* Mr. Ramsland concludes that “[t]he documented existence of the spikes are strongly indicative of a manual adjustment either by the operator of the system (see paragraph 12 above) or an attack by outside actors.” *Id.* The vote totals added for all Michigan counties, including Wayne, Oakland, Macomb and Kent counties, for the period analyzed by Mr. Ramsland are reproduced in the figure below.



5. The Number of Illegal Votes Attributable to Dominion Is Nearly Twice the Biden's Purported Margin in Michigan.

135. Based on his analysis of the red flags and statistical anomalies discussed below, Mr. Ramsland concludes that:

[T]hese statistical anomalies and impossibilities compels the conclusion to a reasonable degree of professional certainty that the vote count in Michigan and in Wayne County, in particular for candidates for President contain at least 289,866 illegal votes that must be disregarded.

Given that Mr. Biden's currently purported margin of victory is approximately 154,000, the number of illegal votes attributable Dominion's fraudulent and illegal conduct is by itself (without considering the tens or hundreds of thousands of illegal votes due to the unlawful conduct described in Section II), is nearly twice Mr. Biden's current purported lead in the State of Michigan. Thus Mr. Ramsland affidavit alone provides this Court more than sufficient basis to grant the relief requested herein.

E. Additional Independent Findings of Dominion Flaws.

136. Further supportive of this pattern of incidents, reflecting an absence of mistake, Plaintiffs have since learned that the "glitches" in the Dominion system -- that have the uniform effect of hurting Trump and helping Biden -- have been widely reported in the press and confirmed by the analysis of independent experts.

1. Central Operator Can Remove, Discard or Manipulate Votes.

137. Plaintiffs have also learned of the connection between Dominion Voting Systems, Smartmatic and the voting systems used in Venezuela and the Phillipines.

- a. Dominion Voting has also contradicted itself in a rush to denial a pattern of errors that lead to fraud. For example, Dominion Voting Systems machines can read all of these instruments, including Sharpies. <https://www.dominionvoting.com/>
- b. but Dominion Voting's Democracy Suite contract with Michigan specifically requires:

*Black Inc: Black ink (or toner) must be dense, opaques, light-fast and permanent, with a measured minimum 1.2 reflection density (log) above the paper base.*¹³

138. An Affiant, who is a network & Information cybersecurities expert, under sworn testimony explains that after studying the user manual for Dominion Voting Systems Democracy software, he learned that the information about scanned **ballots can be tracked inside the software system for Dominion:**

(a) When bulk ballot scanning and tabulation begins, the "ImageCast Central" workstation operator will load a batch of ballots into the scanner feed tray and then start the scanning procedure within the software menu. The scanner then begins to scan the ballots which were loaded into the feed tray while the "ImageCast Central" software application tabulates votes in real-time. Information about scanned ballots can be tracked inside the "ImageCast Central" software application.

(See Exh.Aff. of Watkins ___, at par.11).

139. The **Affiant further explains that the central operator can remove or discard batches of votes.** "After all of the ballots loaded into the scanner's feed tray have been through the scanner, the "ImageCast Central" operator will remove the ballots from the tray then have the option to either "Accept Batch" or "Discard Batch" on the scanning menu "Id. at ¶ 12.

140. Affiant further testifies that the user manual makes clear that the system allows for threshold settings to be set to find all ballots get marked as "problem ballots" for discretionary determinations on where the vote goes stating:

"During the voting process, the voter will mark an oval on the ballot using a writing device. During the scanning process, the "ImageCast Central" software will detect how much of a percent coverage of the oval was filled in by the voter. The Dominion customer determines the thresholds of which the oval needs to be covered by a mark in order to qualify as a valid vote. If a ballot has a marginal mark which did not meet the specific thresholds set by the customer, then the ballot is considered a "problem ballot" and may be set aside into a folder named "NotCastImages". Through creatively tweaking the oval coverage threshold settings it should be possible to set thresholds in such a way that a non-trivial amount of ballots are marked "problem ballots" and sent to the "NotCastImages"

¹³See Exh. 8, par. 2.6.2 of contract # 071B770017.

folder. It is possible for an administrator of the ImageCast Central work station to view all images of scanned ballots which were deemed "problem ballots" by simply navigating via the standard "Windows File Explorer" to the folder named "NotCastImages" which holds ballot scans of "problem ballots". It is possible for an administrator of the "ImageCast Central" workstation to view and delete any individual ballot scans from the "NotCastImages" folder by simply using the standard Windows delete and recycle bin functions provided by the Windows 10 Pro operating system.

Id. at ¶¶ 13-14.

141. The Affiant further explains the vulnerabilities in the system when the copy of the selected ballots that are approved in the Results folder are made to a flash memory card – and that is connected to a Windows computer stating:

It is possible for an administrator of the "ImageCast Central" workstation to view and delete any individual ballot scans from the "NotCastImages" folder by simply using the standard Windows delete and recycle bin functions provided by the Windows 10 Pro operating system. ... The upload process is just a simple copying of a "Results" folder containing vote tallies to a flash memory card connected to the "Windows 10 Pro" machine. The copy process uses the standard drag-n-drop or copy/paste mechanisms within the ubiquitous "Windows File Explorer". While a simple procedure, this process may be error prone and is very vulnerable to malicious administrators.

Id. at par. 14 and 15.

2. Dominion – By Design – Violates Federal Election & Voting Record Retention Requirements.

142. The Dominion System put in place by its own design violates the intent of Federal law on the requirement to preserve and retain records – which was clearly requires preservation of all records requisite to voting in such an election.

F. **§ 20701.** Retention and preservation of records and papers by officers of elections; deposit with custodian; penalty for violation

Every officer of election shall retain and preserve, for a period of twenty-two months from the date of any general, special, or primary election of which candidates for the office of President, Vice President, presidential elector, Member of the Senate, Member of the House of Representatives, or Resident Commissioner from the Commonwealth of Puerto Rico are

voted for, **all records and papers which come into his possession relating to any application, registration, payment of poll tax, or other act requisite to voting in such election**, except that, when required by law, such records and papers may be delivered to another officer of election and except that, if a State or the Commonwealth of Puerto Rico designates a custodian to retain and preserve these records and papers at a specified place, then such records and papers may be deposited with such custodian, and the duty to retain and preserve any record or paper so deposited shall devolve upon such custodian. Any officer of election or custodian who willfully fails to comply with this section shall be fined not more than \$1,000 or imprisoned not more than one year, or both.

143. A Penn Wharton Study from 2016 concluded that “Voters and their representatives in government, often prompted by news of high-profile voting problems, also have raised concerns about the reliability and integrity of the voting process, and have increasingly called for the use of modern technology such as laptops and tablets to improve convenience.

144. As evidence of the risks of the Dominion Democracy Suite, as described above, the same Dominion Democracy Suite was denied certification in Texas by the Secretary of State on January 24, 2020 specifically because of a **lack of evidence of efficiency and accuracy and to be safe from fraud or unauthorized manipulation.**¹⁴

3. Dominion Vulnerabilities To Hacking.

145. Plaintiffs have since learned that the "glitches" in the Dominion system -- that have the uniform effect of hurting Trump and helping Biden -- have been widely reported in the press and confirmed by the analysis of independent experts.

146. Plaintiffs can show, through expert and fact witnesses that:

A. Massive End User Vulnerabilities.

¹⁴See Exh. X, Report of Review of Dominion Voting Systems Democracy Suite 5.5-A Elections Division by the Secretary of State’s office, Elections Division, January 24, 2020.

- (1) Users on the ground have full admin privileges to machines and software. The Dominion system is designed to facilitate vulnerability and allow a select few to determine which votes will be counted in any election. Workers were responsible for moving ballot data from polling place to the collector's office and inputting it into the correct folder. Any anomaly, such as pen drips or bleeds, is not counted and is handed over to a poll worker to analyze and decide if it should count. This creates massive opportunity for improper vote adjudication. (See Exh. ____ For Affiant Watkins).
- (2) Affiant witness (name redacted for security reasons¹⁵), in his sworn testimony explains he was selected for the national security guard detail of the President of Venezuela, and that he witnessed the creation of Smartmatic for the purpose of election vote manipulation:

“I was witness to the creation and operation of a sophisticated electronic voting system that permitted the leaders of the Venezuelan government to manipulate the tabulation of votes for national and local elections and select the winner of those elections in order to gain and maintain their power. Importantly, I was a direct witness to the creation and operation of an electronic voting system in a conspiracy between a company known as Smartmatic and the leaders of conspiracy with the Venezuelan government. This conspiracy specifically involved President Hugo Chavez Frias, the person in charge of the National Electoral Council named Jorge Rodriguez, and principals, representatives, and personnel from Smartmatic which included ... The purpose of this conspiracy was to create and operate a voting system that could change the votes in elections from votes against persons running the Venezuelan government to votes in their favor in order to maintain control of the government.”

(See Exh. 14, pars. 6, 9, 10).

147. Specific vulnerabilities of the systems in question that have been documented or reported include:

- A. Barcodes can override the voters' vote: As one University of California, Berkeley study shows, “In all three of these machines [including Dominion Voting Systems] the ballot marking printer is in the same paper path as the mechanism to deposit marked ballots into an attached ballot box. This opens up a very serious security vulnerability: the voting machine can make the paper ballot (to add votes or spoil already-case votes) after the last time the voter sees the paper, and then deposit that marked ballot into the ballot box

¹⁵The Affiant's name will be produced in camera to the court, with a motion for seal of the information.

- without the possibility of detection.” (See Ex. __,) ¹⁶
- B. Voting machines were able to be connected to the internet by way of laptops that were obviously internet accessible. If one laptop was connected to the internet, the entire precinct was compromised.
 - C. “We ... discovered that at least some jurisdictions were not aware that their systems were online,” said Kevin Skoglund, an independent security consultant who conducted the research with nine others, all of them long-time security professionals and academics with expertise in election security. Vice. August 2019. ¹⁷
 - D. October 6, 2006 – Congresswoman Carolyn Maloney calls on Secretary of Treasury Henry Paulson to conduct an investigation into Smartmatic based on its foreign ownership and ties to Venezuela. (See Ex. __).
 - E. Congresswoman Maloney wrote that “It is undisputed that Smartmatic is foreign owned and it has acquired Sequoia ... Smartmatica now acknowledged that Antonio Mugica, a Venezuelan businessman has a controlling interest in Smartmatica, but the company has not revealed who all other Smartmatic owners are.
 - F. Dominion “got into trouble” with several subsidiaries it used over alleged cases of fraud. One subsidiary is Smartmatic, a company “that has played a significant role in the U.S. market over the last decade,” according to a report published by UK-based AccessWire.
 - G. Litigation over Smartmatic “glitches” alleges they impacted the 2010 and 2013 mid-term elections in the Philippines, raising questions of cheating and fraud. An independent review of the source codes used in the machines found multiple problems, which concluded, “The software inventory provided by Smartmatic is inadequate, ... which brings into question the software credibility,” ABS-CBN reported.
 - H. Dominion acquired Sequoia Voting Systems as well as Premier Election Solutions (formerly part of Diebold, which sold Premier to ES&S in 2009, until antitrust issues forced ES&S to sell Premier, which then was acquired by Dominion). This map illustrates 2016 voting machine data—meaning, these data do not reflect geographic aggregation at the time of acquisition, but

¹⁶Ballot Marking Devices (BMDs) Cannot Assure the Will of the Voters, Andrew W. Appel, Richard T. DeMello, University of California, Berkeley, 12/27/2019.

¹⁷<https://www.vice.com/en/article/3kxzk9/exclusive-critical-us-election-systems-have-been-left-exposed-online-despite-official-denials>

rather the machines that retain the Sequoia or Premier/Diebold brand that now fall under Dominion's market share. (The Business of Voting, Penn Wharton, Caufield, p. 16).

- I. Dominion entered into a 2009 contract with Smartmatic and provided Smartmatic with the PCOS machines (optical scanners) that were used in the 2010 Philippine election, the biggest automated election run by a private company. The automation of that first election in the Philippines was hailed by the international community and by the critics of the automation. The results transmission reached 90% of votes four hours after polls closed and Filipinos knew for the first time who would be their new president on Election Day. In keeping with local Election law requirements, Smartmatic and Dominion were required to provide the source code of the voting machines prior to elections so that it could be independently verified.¹⁸
- J. In late December of 2019, three Democrat Senators, Warren, Klobuchar, Wyden and House Member Mark Pocan wrote about their 'particularized concerns that secretive & "trouble-plagued companies"' "have long skimmed on security in favor of convenience," in the context of how they described the voting machine systems that three large vendors – Election Systems & Software, Dominion Voting Systems, & Hart InterCivic – collectively provide voting machines & software that facilitate voting for over 90% of all eligible voters in the U.S." (See Exh. __, attached copy of Senators' letter).
- K. Senator Ron Wyden (D-Oregon) said the findings [insecurity of voting systems] are "yet another damning indictment of the profiteering election vendors, who care more about the bottom line than protecting our democracy." It's also an indictment, he said, "of the notion that important cybersecurity decisions should be left entirely to county election offices, many of whom do not employ a single cybersecurity specialist." Vice. August 2019.¹⁹

148. The expert witness in pending litigation in the United States District Court of Georgia, _____, Harri Hursti, specifically testified to the acute security vulnerabilities, among other facts, by declaration filed on August 24, 2020, (See Exhibit

¹⁸LONDON, ENGLAND / ACCESSWIRE / August 10, 2017, *Voting Technology Companies in the U.S. - Their Histories and Present Contributions*

¹⁹<https://www.vice.com/en/article/3kxzk9/exclusive-critical-us-election-systems->

[have-been-left-exposed-online-despite-official-denials](https://www.vice.com/en/article/3kxzk9/exclusive-critical-us-election-systems-have-been-left-exposed-online-despite-official-denials)

“ ___ ” attached hereto) wherein he testified or found:

- A. “The scanner and tabulation software settings being employed to determine which votes to count on hand marked paper ballots are likely causing clearly intentioned votes to be counted” “The voting system is being operated in Fulton County in a manner that escalates the security risk to an extreme level” “Votes are not reviewing their BMD printed ballots, which causes BMD generated results to be un-auditable due to the untrustworthy audit trail.” 50% or more of voter selections in some counties were visible to poll workers. Dominion employees maintain near exclusive control over the EMS servers. “In my professional opinion, the role played by Dominion personnel in Fulton County, and other counties with similar arrangements, should be considered an elevated risk factor when evaluating the security risks of Georgia’s voting system.” See Paragraph 26 of Hursti Declaration.
- B. A video game download was found on one Georgia Dominion system laptop, suggesting that multiple Windows updates have been made on that respective computer.
- C. There is evidence of remote access and remote troubleshooting which presents a grave security implication.
- D. Certified identified vulnerabilities should be considered an “extreme security risk.”
- E. There is evidence of transfer of control the systems out of the physical perimeters and place control with a third party off site.
- F. USB drives with vote tally information were observed to be removed from the presence of poll watchers during a recent election.

1. Hursti stated within said Declaration:

“The security risks outlined above – operating system risks, the failure to harden the computers, performing operations directly on the operating systems, lax control of memory cards, lack of procedures, and potential remote access are extreme and destroy the credibility of the tabulations and output of the reports coming from a voting system.” (See Paragraph 49 of Hursti Declaration).

149. Rather than engaging in an open and transparent process to give credibility to Michigan’s Dominion-Democracy Suite voting system, the processes were hidden during the receipt, review, opening, and tabulation of those votes in direct contravention of Michigan’s Election Code and Federal law.

150. Finally, an analysis of the Dominion software system by a former US Military Intelligence expert concludes that the system and software have been accessible and were certainly compromised by rogue actors, such as Iran and China. By using servers and employees connected with rogue actors and hostile foreign influences combined with numerous easily discoverable leaked credentials, Dominion neglectfully allowed foreign adversaries to access data and intentionally provided access to their infrastructure in order to monitor and manipulate elections, including the most recent one in 2020. *See* Exh. 105, Spider Declaration.

4. Dominion Connections to Smartmatic and Hostile Foreign Governments and Domestic Groups Such as Antifa.

151. Plaintiffs can also show Smartmatic's incorporation and inventors who have backgrounds evidencing their foreign connections, including Serbia, specifically its identified inventors:

Applicant: SMARTMATIC, CORP.

Inventors: Lino Iglesias, Roger Pinate, Antonio Mugica, Paul Babic, Jeffrey Naveda, Dany Farina, Rodrigo Meneses, Salvador Ponticelli, Gisela Goncalves, Yrem Caruso²⁰

152. Another Affiant witness testifies that in Venezuela, she was in official position related to elections and witnessed manipulations of petitions to prevent a removal of President Chavez and because she protested, she was summarily dismissed. She explains the vulnerabilities of the electronic voting system and Smartmatica to such manipulations. (See Exh. __, Anna Mercedes Diaz Cardozo).

153. Plaintiffs have also learned through several reports that in 2010 Eric Coomer joined Dominion as Vice President of U.S. Engineering. According to his bio,

²⁰<https://patents.justia.com/assignee/smartmatic-corp>

Coomer graduated from the University of California, Berkeley with a Ph.D. in Nuclear Physics. Eric Coomer was later promoted to Voting Systems Officer of Strategy and Security although Coomer has since been removed from the Dominion page of directors after Joe Oltmann disclosed that as a reporter he infiltrated ANTIFA< a domestic terrorist organization where he recorded Eric Coomer representing that “Don’t worry Trump won’t win the election, we fixed that.” – as well as twitter posts with violence threatened against President Trump. (See Joe Oltmann interview with Michelle Malkin dated November 13, 2020 which contains copies of Eric Coomer’s recording and tweets).²¹

154. In sum, as set forth above, for a host of independent reasons, the Michigan certified election results concluding that Joe Biden received 154,180 more votes than President Donald Trump must be set aside.

COUNT I

Defendants Violated the Elections and Electors Clauses and 42 U.S.C. § 1983.

155. Plaintiffs reallege all preceding paragraphs as if fully set forth herein.

156. The Electors Clause states that “[e]ach State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors” for President. U.S. Const. art. II, §1, cl. 2 (emphasis added). Likewise, the Elections Clause of the U.S. Constitution states that “[t]he Times, Places, and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by *the Legislature* thereof.” U.S. Const. art. I, §4, cl. 1 (emphasis added).

157. The Legislature is “the representative body which ma[kes] the laws of the

²¹

https://www.youtube.com/watch?v=dh1X4s9HuLo&fbclid=IwAR2EaJc1M9RT3DaUraAjsycM0uPKB3uM_-MhH6SMcGrwNyJ3vNmlcTsHxF4

people.” *Smiley*, 285 U.S. at 193. Regulations of congressional and presidential elections, thus, “must be in accordance with the method which the state has prescribed for legislative enactments.” *Id.* at 367; *see also Ariz. State Legislature v. Ariz. Indep. Redistricting Comm’n*, 135 S. Ct. 2652, 2668 (2015).

158. Defendants are not part of the Michigan Legislature and cannot exercise legislative power. Because the United States Constitution reserves for the Michigan Legislature the power to set the time, place, and manner of holding elections for the President and Congress, county boards of elections and state executive officers have no authority to unilaterally exercise that power, much less to hold them in ways that conflict with existing legislation. Defendants are not the legislature, and their unilateral decision to deviate from the requirements of the Michigan Election Code violates the Electors and Elections Clause of the United States Constitution.

159. Many affiants testified to Defendants’ failure to follow the requirements of the Michigan Election Code, as enacted by the Michigan Legislature, MCL §§ 168.730-738, relating to the rights of partisan election challengers to provide transparency and accountability to ensure that all, and only, lawful ballots casts be counted, and that the outcome of the election was honestly and fairly determined by eligible voters casting legal ballots. As detailed in Section II, many of these requirements were either disregarded altogether or applied in a discriminatory manner to Republican poll watchers. Specifically, election officials violated Michigan’s Election Code by: (a) disregarding or violating MCL § 168.730 and § 168.733 requiring election challengers to have meaningful access to observe the counting and processing of ballots, *see supra* Paragraphs 59-75; (b) wanton and widespread forgery and alteration, addition or

removal of votes, voters, or other information from ballots, the QVF or other voting records, *see supra* Paragraphs 76-86; and (c) illegal double voting, counting ineligible ballots, failure to check signatures or postmarks, and several other practices in clear violation of the Michigan Election Code (and in some cases at the express direction of supervisors or Wayne County officials). *See supra* Paragraphs 87-98.

160. Plaintiffs have no adequate remedy at law and will suffer serious and irreparable harm unless the injunctive relief requested herein is granted. Defendants have acted and, unless enjoined, will act under color of state law to violate the Elections Clause.

161. Accordingly, the results for President in the November 3, 2020 election must be set aside.

COUNT II

Governor Whitmer, Secretary Benson and Other Defendants Violated The Fourteenth Amendment U.S. Const. Amend. XIV, 42 U.S.C. § 1983

Denial of Equal Protection

Invalid Enactment of Regulations Affecting Observation and Monitoring of the Election

162. Plaintiffs refer to and incorporate by reference each of the prior paragraphs of this Complaint as though the same were repeated at length herein.

163. The Fourteenth Amendment of the United States Constitution provides “nor shall any state deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws. *See also Bush v. Gore*, 531 U.S. 98, 104 (2000)(having once granted the right to vote on equal terms, the State may not, by later arbitrary and disparate treatment, value one person’s vote

over the value of another's). *Harper v. Virginia Board of Elections*, 383 U.S. 663, 665 (1966) (“Once the franchise is granted to the electorate, lines may not be drawn which are inconsistent with the Equal Protection Clause of the Fourteenth Amendment.”). The Court has held that to ensure equal protection, a problem inheres in the absence of specific standards to ensure its equal application. *Bush*, 531 U.S. at 106 (“The formulation of uniform rules to determine intent based on these recurring circumstances is practicable and, we conclude, necessary.”).

164. The equal enforcement of election laws is necessary to preserve our most basic and fundamental rights. The requirement of equal protection is particularly stringently enforced as to laws that affect the exercise of fundamental rights, including the right to vote.

165. In statewide and federal elections conducted in the State of Michigan, including without limitation the November 3, 2020 General Election, all candidates, political parties, and voters, including without limitation Plaintiffs, have a vested interest in being present and having meaningful access to observe and monitor the electoral process in each County to ensure that it is properly administered in every election district and otherwise free, fair, and transparent.

166. Moreover, through its provisions involving watchers and representatives, the Michigan Election Code ensures that all candidates and political parties in each County, including the Trump Campaign, have meaningful access to observe and monitor the electoral process to ensure that it is properly administered in every election district and otherwise free, fair, and transparent. *See, e.g.*, MCL § 168.730 & § 168.733(1). Further, the Michigan Election Code provides it is a felony punishable by

up to two years in state prison for any person to threaten or intimidate a challenger who is performing any activity described in Michigan law. MCL § 168.734(4). Defendants have a duty to treat the voting citizens in each County in the same manner as the citizens in other Counties in Michigan.

167. As set forth in Count I above, Defendants failed to comply with the requirements of the Michigan Election Code and thereby diluted the lawful ballots of the Plaintiffs and of other Michigan voters and electors in violation of the United States Constitution guarantee of Equal Protection.

168. Specifically, Defendants denied the Trump Campaign equal protection of the law and their equal rights to meaningful access to observe and monitor the electoral process enjoyed by citizens in other Michigan Counties by: (a) denying Republican poll challengers access to the TCF Center or physically removing them or locking them out for pretextual reasons; (b) denied Republican poll watchers meaningful access to, or even physically blocking their view of, ballot handling, processing, or counting; (c) engaged in a systematic pattern of harassment, intimidation, verbal insult, and even physical removal of Republican poll challengers; (d) systematically discriminated against Republican poll watchers and in favor of Democratic poll watchers and activists in enforcing rules (in particular, through abuse of “social distancing” requirements); (e) ignored or refused to record Republican challenges to the violations set forth herein; (f) refusing to permit Republican poll watchers to observe ballot duplication or to check if duplication was accurate; (g) unlawfully coached voters to vote for Biden and other democratic candidates, including at voting stations; and (h) colluded with other Michigan State, Wayne County and City of Detroit employees (including police) and

Democratic poll watchers and activists to engage in the foregoing violations. *See generally supra* Section II.A, Paragraphs 56-75.

169. Defendants further violated Michigan voters' rights to equal protection insofar as it allowed Wayne County and City of Detroit election workers to process and count ballots in a manner that allowed ineligible ballots to be counted, including: (a) fraudulently adding tens of thousands of new ballots and/or new voters to the QVF in two separate batches on November 4, 2020, all or nearly all of which were votes for Joe Biden; (b) systematically forging voter information and fraudulently adding new voters to the QVF (in particular, where a voter's name could not be found, assigning the ballot to a random name already in the QVF to a person who had not voted and recorded these new voters as having a birthdate of 1/1/1900); (c) fraudulently changing dates on absentee ballots received after 8:00 PM Election Day deadline to indicate that such ballots were received before the deadline; (d) changing Votes for Trump and other Republican candidates; (e) adding votes to "undervote" ballots and removing votes from "Over-Votes"; (f) permitting illegal double voting by persons that had voted by absentee ballot and in person; (g) counting ineligible ballots – and in many cases – multiple times; (h) counting ballots without signatures, or without attempting to match signatures, and ballots without postmarks, pursuant to direct instructions from Defendants; (i) counting "spoiled" ballots; (j) systematic violations of ballot secrecy requirements; (k) accepting unsecured ballots arrived at the TCF Center loading garage, not in sealed ballot boxes, without any chain of custody, and without envelopes, after the 8:00 PM Election Day deadline; (l) accepting and counting ballots from deceased voters; and (m) accepting and counting ballots collected from unattended remote drop

boxes. *See generally infra* Section II.B. and II.C, Paragraphs 76-98.

170. Plaintiffs have obtained direct eyewitness testimony confirming that certain of these unlawful practices were at the express direction of Wayne County election officials. With respect to (a) and (b), Affiant Cushman testified that election supervisor Miller informed him that the Wayne County Clerk's office had expressly instructed them to manually to enter thousands of ballots arriving around 9 PM on November 4, 2020, from voters not in the QVF, and to manually enter these unregistered voters in the QVF with the birthdate of 1/1/1900. Exh. 3, GLJC Complaint, Exh. D at ¶¶ 14-17. With respect to (c), fraudulently back-dating absentee ballots, City of Detroit election worker Affiant Jacob affirmed that she was instructed by supervisors to "improperly pre-date the absentee ballots receive date ... to falsely show that absentee ballots had been received in time to be valid." *Id.* Exh. B at ¶17. With respect to (h) (accepting ballots without signatures or postmarks), affiants testified that election workers did so at the express direction of Wayne County election officials. *See id.* at ¶15.

171. Other Michigan county boards of elections provided watchers and representatives of candidates and political parties, including without limitation watchers and representatives of the Trump Campaign, with appropriate access to view the absentee and mail-in ballots being pre-canvassed and canvassed by those county election boards without the restrictions and discriminatory treatment outline above. Defendants intentionally and/or arbitrarily and capriciously denied Plaintiffs access to and/or obstructed actual observation and monitoring of the absentee and mail-in ballots being pre-canvassed and canvassed by Defendants, depriving them of the

equal protection of those state laws enjoyed by citizens in other Counties.

172. Defendants have acted and will continue to act under color of state law to violate Plaintiffs' right to be present and have actual observation and access to the electoral process as secured by the Equal Protection Clause of the United States Constitution. Defendants thus failed to conduct the general election in a uniform manner as required by the Equal Protection Clause of the Fourteenth Amendment, the corollary provisions of the Michigan Constitution, and the Michigan Election Code.

173. Plaintiffs seek declaratory and injunctive relief requiring Secretary Benson to direct that the Michigan Counties allow a reasonable number of challengers to meaningfully observe the conduct of the Michigan Counties canvassers and board of state canvassers and that these canvassing boards exercise their duty and authority under Michigan law, which forbids certifying a tally that includes any ballots that were not legally cast, or that were switched from Trump to Biden through the unlawful use of Dominion Democracy Suite software and devices.

174. In addition, Plaintiffs ask this Court to order that no ballot processed by a counting board in the Michigan Counties can be included in the final vote tally unless a challenger was allowed to meaningfully observe the process and handling and counting of the ballot, or that were unlawfully switched from Trump to Biden.

175. Plaintiffs have no adequate remedy at law and will suffer serious and irreparable harm unless the declaratory and injunctive relief requested herein is granted. Indeed, the setting aside of an election in which the people have chosen their representative is a drastic remedy that should not be undertaken lightly, but instead should be reserved for cases in which a person challenging an election has clearly

established a violation of election procedures and has demonstrated that the violation has placed the result of the election in doubt. Michigan law allows elections to be contested through litigation, both as a check on the integrity of the election process and as a means of ensuring the fundamental right of citizens to vote and to have their votes counted accurately.

176. In addition to the alternative requests for relief in the preceding paragraphs, hereby restated, Plaintiffs seek a permanent injunction requiring the Wayne County and other Michigan Election Boards to invalidate ballots cast by: (1) any voter added to the QVF after the 8:00 PM Election Day deadline; (3) any absentee or mail-in ballot received without a signature or postmark; (4) any ballot cast by a voter who submitted a mail-in ballot and voted in person; (5) any ballot cast by a voter not in the QVF that was assigned the name of a voter in the QVF; (6) voters whose signatures on their registrations have not been matched with ballot, envelope and voter registration check; and (7) all “dead votes”.*See generally supra* Section II.A-II.C.

COUNT III

**Fourteenth Amendment, U.S. Const. Art. I § 4, cl. 1; Art. II, § 1, cl. 2;
Amend. XIV, 42 U.S.C. § 1983**

Denial of Due Process On The Right to Vote

177. Plaintiffs refer to and incorporate by reference each of the prior paragraphs of this Complaint as though the same were repeated at length herein.

178. The right of qualified citizens to vote in a state election involving federal

candidates is recognized as a fundamental right under the Fourteenth Amendment of the United States Constitution. *Harper*, 383 U.S. at 665. *See also Reynolds*, 377 U.S. at 554 (The Fourteenth Amendment protects the “the right of all qualified citizens to vote, in state as well as in federal elections.”). Indeed, ever since the Slaughter-House Cases, 83 U.S. 36 (1873), the United States Supreme Court has held that the Privileges or Immunities Clause of the Fourteenth Amendment protects certain rights of federal citizenship from state interference, including the right of citizens to directly elect members of Congress. *See Twining v. New Jersey*, 211 U.S. 78, 97 (1908) (citing *Ex parte Yarbrough*, 110 U.S. 651, 663-64 (1884)). *See also Oregon v. Mitchell*, 400 U.S. 112, 148-49 (1970) (Douglas, J., concurring) (collecting cases).

179. The fundamental right to vote protected by the Fourteenth Amendment is cherished in our nation because it “is preservative of other basic civil and political rights.” *Reynolds*, 377 U.S. at 562. Voters have a “right to cast a ballot in an election free from the taint of intimidation and fraud,” *Burson v. Freeman*, 504 U.S. 191, 211 (1992), and “[c]onfidence in the integrity of our electoral processes is essential to the functioning of our participatory democracy.” *Purcell v. Gonzalez*, 549 U.S. 1, 4 (2006) (per curiam).

180. “Obviously included within the right to [vote], secured by the Constitution, is the right of qualified voters within a state to cast their ballots and have them counted” if they are validly cast. *United States v. Classic*, 313 U.S. 299, 315 (1941). “[T]he right to have the vote counted” means counted “at full value without dilution or discount.” *Reynolds*, 377 U.S. at 555, n.29 (quoting *South v. Peters*, 339 U.S. 276, 279 (1950) (Douglas, J., dissenting)).

181. “Every voter in a federal . . . election, whether he votes for a candidate with little chance of winning or for one with little chance of losing, has a right under the Constitution to have his vote fairly counted, without its being distorted by fraudulently cast votes.” *Anderson v. United States*, 417 U.S. 211, 227 (1974); *see also Baker v. Carr*, 369 U.S. 186, 208 (1962). Invalid or fraudulent votes “debase[]” and “dilute” the weight of each validly cast vote. *See Anderson*, 417 U.S. at 227.

182. The right to an honest [count] is a right possessed by each voting elector, and to the extent that the importance of his vote is nullified, wholly or in part, he has been injured in the free exercise of a right or privilege secured to him by the laws and Constitution of the United States.” *Anderson*, 417 U.S. at 226 (*quoting Prichard v. United States*, 181 F.2d 326, 331 (6th Cir.), *aff’d due to absence of quorum*, 339 U.S. 974 (1950)).

183. Practices that promote the casting of illegal or unreliable ballots or fail to contain basic minimum guarantees against such conduct, can violate the Fourteenth Amendment by leading to the dilution of validly cast ballots. *See Reynolds*, 377 U.S. at 555 (“[T]he right of suffrage can be denied by a debasement or dilution of the weight of a citizen’s vote just as effectively as by wholly prohibiting the free exercise of the franchise.”).

184. Section II of this Complaint and the exhibits attached hereto describe widespread and systematic violations of the Michigan Election Code and/or the Equal Protection Clause described, namely: (A) Section II.A, Republican poll challengers were denied the opportunity to meaningfully observe the processing and counting of ballots; (B) Section II.B, election workers forged, added, removed or otherwise altered

information on ballots, the QFV and other voting records; and (C) Section II.C, several other Michigan Election Code violations that caused or facilitated the counting of tens of thousands of ineligible, illegal or duplicate ballots.

185. Plaintiffs seek declaratory and injunctive relief requiring Secretary Benson to direct that Secretary Benson and Wayne County are enjoined from certifying the results of the General Election, or in the alternative, conduct a recount or recanvass in which they allow a reasonable number of challengers to meaningfully observe the conduct of the Michigan Counties canvassers and board of state canvassers and that these canvassing boards exercise their duty and authority under Michigan law, which forbids certifying a tally that includes any ballots that were not legally cast, or that were switched from Trump to Biden through the unlawful use of Dominion Democracy Suite software and devices.

COUNT IV

Wide-Spread Ballot Fraud

186. Plaintiffs reallege all preceding paragraphs as if fully set forth herein.

187. The "glitches" in the Dominion system -- that seem to have the uniform effect of hurting Trump and helping Biden -- have been widely reported in the press and confirmed by the analysis of independent experts. *See generally supra* Section IV.

188. And as evidenced by numerous sworn statements, Defendants egregious misconduct has included ignoring legislative mandates concerning mail-in ballots-- including the mandate that mail-in ballots be post-marked on or before Election Day, and critically, preventing Plaintiff's poll watchers from observing the receipt, review, opening, and tabulation of mail-in ballots. Those mail-in ballots are evaluated on an entirely parallel track to those ballots cast in person.

189. The right to vote includes not just the right to cast a ballot, but also the right to have it fairly counted if it is legally cast. The right to vote is infringed if a vote is cancelled or diluted by a fraudulent or illegal vote, including without limitation when a single person votes multiple times. The Supreme Court of the United States has made this clear in case after case. *See, e.g., Gray v. Sanders*, 372 U.S. 368, 380 (1963) (every vote must be “protected from the diluting effect of illegal ballots.”); *Crawford v. Marion Cnty. Election Bd.*, 553 U.S. 181, 196 (2008) (plurality op. of Stevens, J.) (“There is no question about the legitimacy or importance of the State’s interest in counting only the votes of eligible voters.”); *accord Reynolds v. Sims*, 377 U.S. 533, 554-55 & n.29 (1964).

190. The disparate treatment of Michigan voters, in subjecting one class of voters to greater burdens or scrutiny than another, violates Equal Protection guarantees because “the right of suffrage can be denied by a debasement or dilution of the weight of a citizen’s vote just as effectively as by wholly prohibiting the free exercise of the franchise.” *Reynolds*, 377 U.S. at 555. *Rice v. McAlister*, 268 Ore. 125, 128, 519 P.2d 1263, 1265 (1975); *Heitman v. Brown Grp., Inc.*, 638 S.W.2d 316, 319, 1982 Mo. App. LEXIS 3159, at *4 (Mo. Ct. App. 1982); *Prince v. Bear River Mut. Ins. Co.*, 2002 UT 68, ¶ 41, 56 P.3d 524, 536-37 (Utah 2002).

COUNT V

MICHIGAN STATUTORY ELECTION LAW VIOLATIONS

191. Plaintiffs refer to and incorporate by reference each of the prior paragraphs of this Complaint as though the same were repeated at length herein

Violation of MCL 168.765a.

192. Absent voter ballots must only be counted when “at all times” there is “at least 1 election inspector from each major political party.” MCL 168.765a.

193. Per eyewitness accounts described in this Complaint and its attached sworn

affidavits, Defendants habitually and systematically disallowed election inspectors from the Republican party, including Plaintiff, to be present in the voter counting place and refused access to election inspectors from the Republican party, including Plaintiff, to be within a close enough distance from the absent voter ballots to be able to see for whom the ballots were cast.

See generally supra Section II.A., Paragraphs 56-75.

194. Defendants refused entry to official election inspectors from the Republican party, including Plaintiff, into the counting place to observe the counting of absentee voter ballots. Defendants even physically blocked and obstructed election inspectors from the Republican party, including Plaintiff, by adhering large pieces of cardboard to the transparent glass doors so the counting of absent voter ballots was not viewable.

Violation of MCL 168.733

195. MCL 168.733 requires sets forth the procedures for election challengers and the powers of election inspectors. *See generally supra* Paragraph 39.

196. Per eyewitness accounts described in this Complaint and its attached sworn affidavits, Defendants habitually and systematically failed to provide space for election inspectors from the Republican party, including Plaintiff, to observe election procedure, failed to allow the inspection of poll books, failed to share the names of the electors being entered in the poll books, failed to allow the examination of each ballot as it was being counted, and failed to keep records of obvious and observed fraud. *See generally supra* Section II.A., Paragraphs 56-75.

197. Poll challengers, including Plaintiff, observed election workers and supervisors writing on ballots themselves to alter them, apparently manipulating spoiled ballots by hand and then counting the ballots as valid, counting the same ballot more than once, adding

information to incomplete affidavits accompanying absentee ballots, counting absentee ballots returned late, counting unvalidated and unreliable ballots, and counting the ballots of “voters” who had no recorded birth dates and were not registered in the State’s Qualified Voter File or on any Supplemental voter lists.

Violation of MCL 168.765(5) and 168.764a

198. Michigan election law, MCL 168.765(5), requires Defendants to post the specific absentee voting information anytime an election is conducted which involves a state or federal office, in particular, the number of absentee ballots distributed to absent voters.

199. Upon information and belief, Defendants failed to post by 8:00 a.m. on Election Day the number of absentee ballots distributed to absent voters and failed to post before 9:00 p.m. the number of absent voters returned before on Election Day.

200. Per Michigan Election law, all absentee voter ballots must be returned to the clerk before polls close at 8pm. MCL 168.764a. Any absentee voter ballots received by the clerk after the close of the polls on election day will not be counted.

201. Michigan allows for early counting of absentee votes prior to the closings of the polls for large jurisdictions, such as the City of Detroit and Wayne County.

202. Upon information and belief, receiving tens of thousands additional absentee ballots in the early morning hours after election day and after the counting of the absentee ballots had concluded, without proper oversight, with tens of thousands of ballots attributed to just one candidate, Joe Biden, indicates Defendants failed to follow proper election protocol. *See generally supra* Section II.B.1, Paragraphs 77-78.

Violation of MCL 168.730

203. MCL 168.730 sets forth the rights and requirements for election challengers. MCL 168.734 provides, among other things:

Any officer or election board who shall prevent the presence of any such challenger as above provided, or shall refuse or fail to provide such challenger with conveniences for the performance of the duties expected of him, shall, upon conviction, be punished by a fine not exceeding \$1,000.00, or by imprisonment in the state prison not exceeding 2 years, or by both such fine and imprisonment in the discretion of the court.

204. Wayne County's and Secretary Benson's denial of Republican challengers' right to participate and observe the processing of ballots violates Michigan's Election Code and resulting in the casting and counting of ballots that were ineligible to be counted and diluted or canceled out the lawfully cast ballots of other Michigan voters.

205. Further, Secretary of State Benson and the election officials in Wayne County violated MCL 168.730-168.734 by denying Republican challengers' right to meaningfully observe and participate in the ballot processing and counting process.

206. Based upon the above allegations of fraud, statutory violations, and other misconduct, as stated herein and in the attached affidavits, it is necessary to order appropriate relief, including, but not limited to, enjoining the certification of the election results pending a full investigation and court hearing, ordering a recount of the election results, or voiding the election and ordering a new election, to remedy the fraud.

PRAYER FOR RELIEF

207. Accordingly, Plaintiffs seek an emergency order instructing Defendants to decertify the results of the General Election for the Office of President.

208. Alternatively, Plaintiffs seek an order instructing the Defendants to certify the results of the General Election for Office of the President in favor of President Donald Trump.

209. In the alternative, Plaintiffs seek an emergency order prohibiting Defendants from including in any certified results from the General Election the tabulation of absentee and mailing ballots which do not comply with the Michigan Election Code, including, without limitation, the tabulation of absentee and mail-in ballots Trump Campaign's watchers were prevented from observing or based on the tabulation of invalidly cast absentee and mail-in ballots which (i) lack a secrecy envelope, or contain on that envelope any text, mark, or symbol which reveals the elector's identity, political affiliation, or candidate preference, (ii) do not include on the outside envelope a completed declaration that is dated and signed by the elector, (iii) are delivered in-person by third parties for non-disabled voters, or (iv) any of the other Michigan Election Code violations set forth in Section II of this Complaint.

210. Order production of all registration data, ballots, envelopes, etc. required to be maintained by law. When we consider the harm of these uncounted votes, and ballots not ordered by the voters themselves, and the potential that many of these unordered ballots may in fact have been improperly voted and also prevented proper voting at the polls, the mail ballot system has clearly failed in the state of Michigan and did so on a large scale and widespread basis. The size of the voting failures, whether accidental or intentional, are multiples larger than the margin in the state. For these reasons, Michigan cannot reasonably rely on the results of the mail

vote. Relief sought is the elimination of the mail ballots from counting in the 2020 election. Alternatively, the electors for the State of Michigan should be disqualified from counting toward the 2020 election. Alternatively, the electors of the State of Michigan should be directed to vote for President Donald Trump.

211. For these reasons, Plaintiffs ask this Court to enter a judgment in their favor and provide the following emergency relief:

1. An order directing Secretary Benson, Governor Whitmer, the Board of State Canvassers and Wayne County to de-certify the election results;
2. An order enjoining Secretary Benson and Governor Whitmer from transmitting the currently certified election results to the Electoral College;
3. An order requiring Governor Whitmer to transmit certified election results that state that President Donald Trump is the winner of the election;
4. An immediate order to impound all the voting machines and software in Michigan for expert inspection by the Plaintiffs.
5. An order that no votes received or tabulated by machines that were not certified as required by federal and state law be counted.
6. A declaratory judgment declaring that Michigan's failed system of signature verification violates the Electors and Elections Clause by working a de facto abolition of the signature verification requirement;

7. A declaratory judgment declaring that current certified election results violate the Due Process Clause, U.S. CONST. Amend. XIV;
8. A declaratory judgment declaring that mail-in and absentee ballot fraud must be remedied with a Full Manual Recount or statistically valid sampling that properly verifies the signatures on absentee ballot envelopes and that invalidates the certified results if the recount or sampling analysis shows a sufficient number of ineligible absentee ballots were counted;
9. An emergency declaratory judgment that voting machines be Seized and Impounded immediately for a forensic audit—by Plaintiffs' experts;
10. A declaratory judgment declaring absentee ballot fraud occurred in violation of Constitutional rights, Election laws and under state law;
11. A permanent injunction prohibiting the Governor and Secretary of State from transmitting the currently certified results to the Electoral College based on the overwhelming evidence of election tampering;
12. Immediate production of 48 hours of security camera recording of all rooms used in the voting process at the TCF Center for November 3 and November 4.
13. Plaintiffs further request the Court grant such other relief as is just and proper, including but not limited to, the costs of this action and their reasonable attorney fees and expenses pursuant to 42 U.S.C. 1988.

Respectfully submitted, this 25th day of November, 2020.

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DECLARATION OF [REDACTED]

I, [REDACTED], hereby state the following:

1. [REDACTED]
[REDACTED]
[REDACTED]
2. I am an adult of sound mind. All statements in this declaration are based on my personal knowledge and are true and correct.
3. I am making this statement voluntarily and on my own initiative. I have not been promised, nor do I expect to receive, anything in exchange for my testimony and giving this statement. I have no expectation of any profit or reward and understand that there are those who may seek to harm me for what I say in this statement. I have not participated in any political process in the United States, have not supported any candidate for office in the United States, am not legally permitted to vote in the United States, and have never attempted to vote in the United States.
4. I want to alert the public and let the world know the truth about the corruption, manipulation, and lies being committed by a conspiracy of people and companies intent upon betraying the honest people of the United States and their legally constituted institutions and fundamental rights as citizens. This conspiracy began more than a decade ago in Venezuela and has spread to countries all over the world. It is a conspiracy to wrongfully gain and keep power and wealth. It involves political leaders, powerful companies, and other persons whose purpose is to gain and keep power by changing the free will of the people and subverting the proper course of governing.
5. [REDACTED]
[REDACTED] Over the course of my career, I specialized in the marines [REDACTED]
[REDACTED]
[REDACTED]
6. Due to my training in special operations and my extensive military and academic formations, I was selected for the national security guard detail of the President of Venezuela. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

7. [REDACTED]

[REDACTED] Señor Cabello was a long-time confederate of President Chavez and instrumental in his gaining power. In 2002, Señor Cabello had very briefly taken over the duties of the presidency while Hugo Chavez was imprisoned. Within hours of Señor Cabello taking over the presidency, Hugo Chavez was released from prison and regained the office of President. On December 11, 2011, Cabello was installed as the Vice-President of the United Socialist Party – the party of President Chávez and became the second most powerful figure in the party after Hugo Chávez. Cabello was appointed president of the National Assembly in early 2012 and was re-elected to that post in January 2013. After Hugo Chávez’s death, Cabello was next in line for the presidency of the country, but he remained president of the National Assembly and yielded to Nicolás Maduro holding the position of President of Venezuela.

8. [REDACTED]

[REDACTED] President Chavez was very precise and exacting in his instructions in the details about meetings he wanted, where the meeting was to occur, who was to attend, what was to be done. [REDACTED]

9. [REDACTED] I was witness to the creation and operation of a

sophisticated electronic voting system that permitted the leaders of the Venezuelan government to manipulate the tabulation of votes for national and local elections and select the winner of those elections in order to gain and maintain their power.

10. Importantly, I was a direct witness to the creation and operation of an electronic voting system in a conspiracy between a company known as Smartmatic and the leaders of conspiracy with the Venezuelan government. This conspiracy specifically involved President Hugo Chavez Frias, the person in charge of the National Electoral Council named Jorge Rodriguez, and principals, representatives, and personnel from Smartmatic which included [REDACTED]. The purpose of this conspiracy was to create and operate a voting system that could change the votes in elections from votes *against* persons running the Venezuelan government to votes *in their favor* in order to maintain control of the government.
11. In mid-February of 2009, there was a national referendum to change the Constitution of Venezuela to end term limits for elected officials, including the President of Venezuela. The referendum passed. This permitted Hugo Chavez to be re-elected an unlimited number of times.
12. After passage of the referendum, President Chavez instructed me to make arrangements for him to meet with Jorge Rodriguez, then President of the National Electoral Council, and three executives from Smartmatic. Among the three Smartmatic representatives were [REDACTED]
[REDACTED] President Chavez had multiple meetings with Rodriguez and the Smartmatic team at which I was present. In the first of four meetings, Jorge Rodriguez promoted the idea to create software that would manipulate elections. Chavez was very excited and made it clear that he would provide whatever Smartmatic needed. He wanted them immediately to create a voting system which would ensure that any time anything was going to be voted on the voting system would guarantee results that Chavez wanted. Chavez offered Smartmatic many inducements, including large sums of money, for Smartmatic to create or modify the voting system so that it would guarantee Chavez would win every election cycle. Smartmatic's team agreed to create such a system and did so.
13. I arranged and attended three more meetings between President Chavez and the representatives from Smartmatic at which details of the new

voting system were discussed and agreed upon. For each of these meetings, I communicated directly with [REDACTED] on details of where and when to meet, where the participants would be picked up and delivered to the meetings, and what was to be accomplished. At these meetings, the participants called their project the “Chavez revolution.” From that point on, Chavez never lost any election. In fact, he was able to ensure wins for himself, his party, Congress persons and mayors from townships.

14. Smartmatic’s electoral technology was called “Sistema de Gestión Electoral” (the “Electoral Management System”). Smartmatic was a pioneer in this area of computing systems. Their system provided for transmission of voting data over the internet to a computerized central tabulating center. The voting machines themselves had a digital display, fingerprint recognition feature to identify the voter, and printed out the voter’s ballot. The voter’s thumbprint was linked to a computerized record of that voter’s identity. Smartmatic created and operated the entire system.
15. Chavez was most insistent that Smartmatic design the system in a way that the system could change the vote of each voter without being detected. He wanted the software itself to function in such a manner that if the voter were to place their thumb print or fingerprint on a scanner, then the thumbprint would be tied to a record of the voter’s name and identity as having voted, but that voter would not tracked to the changed vote. He made it clear that the system would have to be setup to not leave any evidence of the changed vote for a specific voter and that there would be no evidence to show and nothing to contradict that the name or the fingerprint or thumb print was going with a changed vote. Smartmatic agreed to create such a system and produced the software and hardware that accomplished that result for President Chavez.
16. After the Smartmatic Electoral Management System was put in place, I closely observed several elections where the results were manipulated using Smartmatic software. One such election was in December 2006 when Chavez was running against Rosales. Chavez won with a landslide over Manuel Rosales - a margin of nearly 6 million votes for Chavez versus 3.7 million for Rosales.
17. On April 14, 2013, I witnessed another Venezuelan national election in which the Smartmatic Electoral Management System was used to manipulate and change the results for the person to succeed Hugo Chávez

as President. In that election, Nicolás Maduro ran against Capriles Radonsky. [REDACTED]

[REDACTED] Inside that location was a control room in which there were multiple digital display screens – TV screens – for results of voting in each state in Venezuela. The actual voting results were fed into that room and onto the displays over an internet feed, which was connected to a sophisticated computer system created by Smartmatic. People in that room were able to see in “real time” whether the vote that came through the electronic voting system was in their favor or against them. If one looked at any particular screen, they could determine that the vote from any specific area or as a national total was going against either candidate. Persons controlling the vote tabulation computer had the ability to change the reporting of votes by moving votes from one candidate to another by using the Smartmatic software.

18. By two o'clock in the afternoon on that election day Capriles Radonsky was ahead of Nicolás Maduro by two million votes. When Maduro and his supporters realized the size of Radonsky's lead they were worried that they were in a crisis mode and would lose the election. The Smartmatic machines used for voting in each state were connected to the internet and reported their information over the internet to the Caracas control center in real-time. So, the decision was made to reset the entire system. Maduro's and his supporters ordered the network controllers to take the internet itself offline in practically all parts in Venezuela and to change the results.
19. It took the voting system operators approximately two hours to make the adjustments in the vote from Radonsky to Maduro. Then, when they turned the internet back on and the on-line reporting was up and running again, they checked each screen state by state to be certain where they could see that each vote was changed in favor of Nicholas Maduro. At that moment the Smartmatic system changed votes that were for Capriles Radonsky to Maduro. By the time the system operators finish, they had achieved a convincing, but narrow victory of 200,000 votes for Maduro.
20. After Smartmatic created the voting system President Chavez wanted, he exported the software and system all over Latin America. It was sent to Bolivia, Nicaragua, Argentina, Ecuador, and Chile – countries that were in alliance with President Chavez. This was a group of leaders who wanted to be able to guarantee they maintained power in their countries. When Chavez died, Smartmatic was in a position of being the only

company that could guarantee results in Venezuelan elections for the party in power.

21. I want to point out that the software and fundamental design of the electronic electoral system and software of Dominion and other election tabulating companies relies upon software that is a descendant of the Smartmatic Electoral Management System. In short, the Smartmatic software is in the DNA of every vote tabulating company's software and system.
22. Dominion is one of three major companies that tabulates votes in the United States. Dominion uses the same methods and fundamentally same software design for the storage, transfer and computation of voter identification data and voting data. Dominion and Smartmatic did business together. The software, hardware and system have the same fundamental flaws which allow multiple opportunities to corrupt the data and mask the process in a way that the average person cannot detect any fraud or manipulation. The fact that the voting machine displays a voting result that the voter intends and then prints out a paper ballot which reflects that change does not matter. It is the software that counts the digitized vote and reports the results. The software itself is the one that changes the information electronically to the result that the operator of the software and vote counting system intends to produce that counts. That's how it is done. So the software, the software itself configures the vote and voting result -- changing the selection made by the voter. The software decides the result regardless of what the voter votes.
23. All of the computer controlled voting tabulation is done in a closed environment so that the voter and any observer cannot detect what is taking place unless there is a malfunction or other event which causes the observer to question the process. I saw first-hand that the manipulation and changing of votes can be done in real-time at the secret counting center which existed in Caracas, Venezuela. For me it was something very surprising and disturbing. I was in awe because I had never been present to actually see it occur and I saw it happen. So, I learned first-hand that it doesn't matter what the voter decides or what the paper ballot says. It's the software operator and the software that decides what counts -- not the voter.
24. If one questions the reliability of my observations, they only have to read the words of [REDACTED] [REDACTED] [REDACTED] a time period in [REDACTED]

I declare under penalty of perjury that the foregoing is true and correct and that this Declaration was prepared in Dallas County, State of Texas, and executed on November 15, 2020.

[Faint, illegible text]

Ballot-Marking Devices (BMDs) Cannot Assure the Will of the Voters

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Abstract

The complexity of U.S. elections usually requires computers to count ballots—but computers can be hacked, so election integrity requires a voting system in which paper ballots can be recounted by hand. However, paper ballots provide no assurance unless they accurately record the vote as the voter expresses it.

Voters can express their intent by indelibly hand-marking ballots, or using computers called ballot-marking device (BMDs). Voters can make mistakes in expressing their intent in either technology, but only BMDs are also subject to hacking, bugs, and misconfiguration of the software that prints the marked ballots. Most voters do not review BMD-printed ballots, and those who do often fail to notice when the printed vote is not what they expressed on the touchscreen. Furthermore, there is no action a voter can take to demonstrate to election officials that a BMD altered their expressed votes, nor is there a corrective action that election officials can take if notified by voters—there is no way to deter, contain, or correct computer hacking in BMDs. These are the essential security flaws of

1 Introduction: Criteria for Voting Systems

Elections for public office and on public questions in the United States or any democracy must produce outcomes based on the votes that voters *express* when they indicate their choices on a paper ballot or on a machine. Computers have become indispensable to conducting elections, but computers are vulnerable. They can be hacked—compromised by insiders or external adversaries who can replace their software with fraudulent software that deliberately miscounts votes—and they can contain design errors and bugs—hardware or software flaws or configuration errors that result in misrecording or mis-tabulating votes. Hence there must be some way, *independent* of any software in any computers, to ensure that reported election outcomes are correct, i.e., consistent with the expressed votes as intended by the voters.

Voting systems should be *software independent*, meaning that “an undetected change or error in its software cannot cause an undetectable change or error in an election outcome” [29, 30, 31]. Software independence is similar to tamper-evident packaging: if somebody opens the container and disturbs the contents, it will leave a trace.

The use of software-independent voting systems is supposed to ensure that if someone fraudulently hacks the voting machines to steal votes, we’ll know about it. But we also want to know *the true outcome* in order to avoid a do-over election.¹ A voting system is *strongly software independent* if it is software independent and, moreover, a detected change or error in an election outcome (due to change or error in the software) can be corrected using only the ballots and ballot records of the current election [29, 30]. Strong software independence combines tamper evidence with a kind of resilience: there’s a way to tell whether faulty software caused a problem, and a way to recover from the problem if it did.

Software independence and *strong software independence* are now standard terms in the analysis of voting systems, and it is widely accepted that voting systems should be software independent. Indeed, version 2.0 of the Voluntary Voting System Guidelines (VVSG 2.0) incorporates this principle [10].

an error? *What happens* when someone detects an error—does the election outcome remain erroneous? Or conversely: How can an election administrator *prove* that the election outcome not been altered, or prove that the correct outcome was recovered if a software malfunction was detected? The standard definition does not distinguish evidence available to an election official, to the public, or just to a single voter; nor does it consider the possibility of false alarms.

Those questions are not merely academic, as we show with an analysis of ballot-marking devices. Even if some *voters* “detect” that the printed output is not what they expressed to the BMD—even if some of *those* voters report their detection to election officials—there is no mechanism by which the *election official* can “detect” whether a BMD has been hacked to alter election outcomes. The questions of *who detects, and then what happens*, are critical—but unanswered by the standard definitions.

We will define the terms *contestable* and *defensible* to better characterize properties of voting systems that make them acceptable for use in public elections.²

A voting system is *contestable* if an undetected change or error in its software that causes a change or error in an election outcome can always produce *public* evidence that the outcome is untrustworthy. For instance, if a voter selected candidate A on the touchscreen of a BMD, but the BMD prints candidate B on the paper ballot, then this A-vs-B evidence is available to the individual voter, but the voter cannot demonstrate this evidence to anyone else, since nobody else saw—nor should have seen—where the voter touched the screen.³ Thus, the voting system does not provide a way for the voter who observed the misbehavior to prove to anyone else that there was a problem, even if the problems altered the reported outcome. Such a system is therefore not *contestable*.

While the definition of software independence might allow evidence available only to individual voters as “detection,” such evidence does not suffice for a system to be contestable. Contestability is software independence, plus the requirement that “detect” implies “can generate public evidence.” “Trust me” does not count as public evidence. If a voting system is not contestable, then problems voters “detect” might never see the light of day, much less be addressed or corrected.⁴

Similarly, while strong software independence demands that a system be able to report the correct outcome even if there was an error or alteration of the software, it does not require *public evidence* that the (reconstructed) reported outcome is correct. We believe, therefore, that voting systems must also be *defensible*. We say that a voting system is defensible if, when the reported electoral outcome is correct, it is possible to generate convincing public evidence that the reported electoral outcome is correct—despite any malfunctions, software errors, or software alterations that might have occurred. If a voting system is not defensible, then it is vulnerable to “crying wolf”: malicious actors could claim that the system malfunctioned when in fact it did not, and election officials will have no way to prove otherwise.

By analogy with *strong software independence*, we define: A voting system is *strongly defensible* if it is defensible and, moreover, a detected change or error in an election outcome (due to change or error in the software) can be corrected (with convincing public evidence) using only the ballots and ballot records of the current election.

In short, a system is contestable if it can generate public evidence of a problem whenever a reported outcome is wrong, while a system is defensible if it can generate public evidence whenever a reported outcome is correct—despite any problems that might have occurred. Contestable systems are publicly tamper-evident; defensible systems are publicly, demonstrably resilient.

Defensibility is a key requirement for *evidence-based elections* [38]: defensibility makes it possible in principle for election officials to generate convincing evidence that the reported winners really won—if the reported winners did really win. (We say an election *system* may be defensible, and an *election* may be evidence-based; there’s much more *process* to an election than just the choice of system.)

Examples. The only known practical technology for contestable, strongly defensible voting is a system of *hand-marked paper ballots*, kept demonstrably physically secure, counted by machine, audited manually, and recountable by hand.⁵ In a hand-

detected and corrected by audits.

That system is *contestable*: if an optical scan voting machine reports the wrong outcome because it miscounted (because it was hacked, misprogrammed, or miscalibrated), the evidence is *public*: the paper ballots, recounted before witnesses, will not match the claimed results, also witnessed. It is *strongly defensible*: a recount before witnesses can demonstrate that the reported outcome is correct, or can find the correct outcome if it was wrong—and provide public evidence that the (reconstructed) outcome is correct.

Some other paper-based systems such as Prêt-à-Voter [32] and Scantegrity [9] are also contestable and strongly defensible (provided the marked ballots are kept demonstrably secure through tabulation and posting). Scantegrity inherits these properties from the fact that it amounts to a cryptographic enhancement of hand-marked paper ballots. Prêt-à-Voter has these properties if the blank ballots are audited appropriately before the election.

Paper-based systems that rely on the “Benaloh challenge”—to ensure that the encryption of the vote printed on the ballot (by an electronic device) is correct—generally are neither contestable nor defensible.⁶ The reason is that, while the challenge can produce public evidence that a machine did not accurately encrypt the plaintext vote on the ballot, if the machine prints the wrong plaintext vote and a correct encryption of that incorrect vote, there is no evidence the voter can use to prove that to anyone else. STAR-Vote [5] is an example of such a system.

Over 40 states now use some form of paper ballot for most voters [18]. Most of the remaining states are taking steps to adopt paper ballots. But *not all voting systems that use paper ballots are equally secure*.

Some are not even software independent. Some are software independent, but not strongly software independent, contestable, or defensible. In this report we explain:

- *Hand-marked paper ballot* systems are the only practical technology for contestable, strongly defensible voting systems

really won. Therefore BMDs should not be used by voters who are able to mark an optical-scan ballot with a pen.

- *All-in-one BMD or DRE+VVPAT voting machines* are not software independent, contestable, or defensible. They should not be used in public elections.

2 Background

We briefly review the kinds of election equipment in use, their vulnerability to computer hacking (or programming error), and in what circumstances risk-limiting audits can mitigate that vulnerability.

Voting equipment

Although a voter may form an intention to vote for a candidate or issue days, minutes, or seconds before actually casting a ballot, that intention is a psychological state that cannot be directly observed by anyone else. Others can have access to that intention through what the voter (privately) *expresses* to the voting technology by interacting with it, e.g., by making selections on a BMD or marking a ballot by hand.⁷ Voting systems must accurately record the vote as the voter *expressed* it.

With a *hand-marked paper ballot optical-scan* system, the voter is given a paper ballot on which all choices (candidates) in each contest are listed; next to each candidate is a *target* (typically an oval or other shape) which the voter marks with a pen to indicate a vote. Ballots may be either preprinted or printed (unvoted) at the polling place using *ballot on demand* printers. In either case, the voter creates a tamper-evident record of intent by marking the printed paper ballot with a pen.

Such hand-marked paper ballots may be scanned and tabulated at the polling place using a *precinct-count optical scanner* (PCOS), or may be brought to a central place to

be scanned and tabulated by a *central-count optical scanner* (CCOS). Mail-in ballots are typically counted by CCOS machines.

After scanning a ballot, a PCOS machine deposits the ballot in a secure, sealed ballot box for later use in recounts or audits; this is *ballot retention*. Ballots counted by CCOS are also retained for recounts or audits.⁸

Paper ballots can also be hand counted, but in most jurisdictions (especially where there are many contests on the ballot) this is hard to do quickly; Americans expect election-night reporting of unofficial totals. Hand counting—i.e., manually determining votes directly from the paper ballots—is appropriate for audits and recounts.

A *ballot-marking device* (BMD) provides a computerized user interface that presents the ballot to voters and captures their expressed selections—for instance, a touchscreen interface or an assistive interface that enables voters with disabilities to vote independently. Voter inputs (expressed votes) are recorded electronically. When a voter indicates that the ballot is complete and ready to be cast, the BMD prints a paper version of the electronically marked ballot. We use the term *BMD* for devices that mark ballots but do not tabulate or retain them, and *all-in-one* for devices that combine ballot marking, tabulation, and retention into the same paper path.

The paper ballot printed by a BMD may be in the same format as an optical-scan form (e.g., with ovals filled as if by hand) or it may list just the names of the candidate(s) selected in each contest. The BMD may also encode these selections into barcodes or QR codes for optical scanning. We discuss issues with barcodes later in this report.

An *all-in-one touchscreen voting machine* combines computerized ballot marking, tabulation, and retention in the same paper path. All-in-one machines come in several configurations:

- DRE+VVPAT machines—direct-recording electronic (DRE) voting machines with a voter-verifiable paper audit trail (VVPAT)—provide the voter a touchscreen (or other) interface, then print a paper ballot that is displayed to the voter under glass. The voter is expected to review this ballot and approve it, after which the machine

- BMD+Scanner all-in-one machines⁹ provide the voter a touchscreen (or other) interface to input ballot choices and print a paper ballot that is ejected from a slot for the voter to inspect. The voter then reinserts the ballot into the slot, after which the all-in-one BMD+scanner scans it and deposits it into a ballot box. Or, some BMD+Scanner all-in-one machines display the paper ballot behind plexi-glass for the voter to inspect, before mechanically depositing it into a ballot box.

Opscan+BMD with separate paper paths. At least one model of voting machine (the Dominion ICP320) contains an optical scanner (opsan) and a BMD in the same cabinet,¹⁰ so that the optical scanner and BMD-printer are not in the same paper path; no possible configuration of the software could cause a BMD-marked ballot to be deposited in the ballot box without human handling of the ballot. We do not classify this as an *all-in-one* machine.

Hacking

There are many forms of computer hacking. In this analysis of voting machines we focus on the alteration of voting machine software so that it miscounts votes or mis-marks ballots to alter election outcomes. There are many ways to alter the software of a voting machine: a person with physical access to the computer can open it and directly access the memory; one can plug in a special USB thumbdrive that exploits bugs and vulnerabilities in the computer's USB drivers; one can connect to its WiFi port or Bluetooth port or telephone modem (if any) and exploit bugs in those drivers, or in the operating system.

“Air-gapping” a system (i.e., never connecting it to the Internet nor to any other network) does not automatically protect it. Before each election, election administrators must transfer a *ballot definition* into the voting machine by inserting a *ballot definition cartridge* that was programmed on election-administration computers that may have been connected previously to various networks; it has been demonstrated that vote-changing viruses can propagate via these ballot-definition cartridges [17].

gain remote access to voting-machine manufacturers' computers (and "hack" the firmware installed in new machines, or the firmware updates supplied for existing machines), and so on. Supply-chain hacks are also possible: the hardware installed by a voting system vendor may have malware pre-installed by the vendor's component suppliers.¹¹

Computer systems (including voting machines) have so many layers of software that it is impossible to make them perfectly secure [23, pp. 89–91]. When manufacturers of voting machines use the best known security practices, adversaries may find it more difficult to hack a BMD or optical scanner—but not impossible. Every computer in every critical system is vulnerable to compromise through hacking, insider attacks or exploiting design flaws.

Election assurance through risk-limiting audits

To ensure that the reported electoral outcome of each contest corresponds to what the voters expressed, the most practical known technology is a *risk-limiting audit* (RLA) of trustworthy paper ballots [34, 35, 22]. The National Academies of Science, Engineering, and Medicine, recommend routine RLAs after every election [23], as do many other organizations and entities concerned with election integrity.¹²

The *risk limit* of a risk-limiting audit is the maximum chance that the audit will not correct the reported electoral outcome, if the reported outcome is wrong. "Electoral outcome" means the political result—who or what won—not the exact tally. "Wrong" means that the outcome does not correspond to what the voters expressed.

A RLA involves manually inspecting randomly selected paper ballots following a rigorous protocol. The audit stops if and when the sample provides convincing evidence that the reported outcome is correct; otherwise, the audit continues until every ballot has been inspected manually, which reveals the correct electoral outcome if the paper trail is trustworthy. RLAs protect against vote-tabulation errors, whether those errors are caused by failures to follow procedures, misconfiguration, miscalibration, faulty

engineering, bugs, or malicious hacking.¹³

The risk limit should be determined as a matter of policy or law. For instance, a 5% risk limit means that, if a reported outcome is wrong solely because of tabulation errors, there is at least a 95% chance that the audit procedure will correct it. Smaller risk limits give higher confidence in election outcomes, but require inspecting more ballots, other things being equal. RLAs never revise a correct outcome.

RLAs can be very efficient, depending in part on how the voting system is designed and how jurisdictions organize their ballots. If the computer results are accurate, an efficient RLA with a risk limit of 5% requires examining just a few—about 7 divided by the margin—ballots selected randomly from the contest.¹⁴ For instance, if the margin of victory is 10% and the results are correct, the RLA would need to examine about $7/10\% = 70$ ballots to confirm the outcome at 5% risk. For a 1% margin, the RLA would need to examine about $7/1\% = 700$ ballots. The sample size does not depend much on the total number of ballots cast in the contest, only on the margin of the winning candidate's victory.

RLAs assume that a full hand tally of the paper trail would reveal the correct electoral outcomes: the paper trail must be trustworthy. Other kinds of audits, such as *compliance audits* [6, 22, 38, 36] are required to establish whether the paper trail itself is trustworthy. Applying an RLA procedure to an untrustworthy paper trail cannot limit the risk that a wrong reported outcome goes uncorrected.

Properly preserved hand-marked paper ballots ensure that expressed votes are identical to recorded votes. But BMDs might not record expressed votes accurately, for instance, if BMD software has bugs, was misconfigured, or was hacked: BMD print-out is not a trustworthy record of the expressed votes. Neither a compliance audit nor a RLA can possibly check whether errors in recording expressed votes altered election outcomes. RLAs that rely on BMD output therefore cannot limit the risk that an incorrect reported election outcome will go uncorrected.

A paper-based voting system (such as one that uses optical scanners) is systematically more secure than a paperless system (such as DREs), *only if the paper trail is*

calibration caused the recorded-on-paper votes to differ from the expressed votes, an RLA or even a full hand recount cannot not provide convincing public evidence that election outcomes are correct: such a system cannot be *defensible*. In short, paper ballots provide little assurance against hacking if they are never examined or if the paper might not accurately reflect the votes expressed by the voters.

3 (Non)Contestability/Defensibility of BMDs

A BMD-generated paper trail is not a reliable record of the vote expressed by the voter. Like any computer, a BMD (or a DRE+VVPAT) is vulnerable to bugs, misconfiguration, hacking, installation of unauthorized (fraudulent) software, and alteration of installed software.

If a hacker sought to steal an election by altering BMD software, what would the hacker program the BMD to do? In cybersecurity practice, we call this the *threat model*.

The simplest threat model is this one: In some contests, not necessarily top-of-the-ticket, change a small percentage of the votes (such as 5%).

In recent national elections, analysts have considered a candidate who received 60% of the vote to have won by a landslide. Many contests are decided by less than a 10% margin. Changing 5% of the votes can change the margin by 10%, because “flipping” a vote for one candidate into a vote for a different candidate changes the difference in their tallies—i.e., the margin—by 2 votes. If hacking or bugs or misconfiguration could change 5% of the votes, that would be a very significant threat.

Although public and media interest often focus on top-of-the-ticket races such as President and Governor, elections for lower offices such as state representatives, who control legislative agendas and redistricting, and county officials, who manage elections and assess taxes, are just as important in our democracy. Altering the outcome of smaller contests requires altering fewer votes, so fewer voters are in a position to notice

spent *an average of 4 seconds* examining it to verify that the eighteen or more choices they made were correctly recorded. That amounts to 222 milliseconds per contest, barely enough time for the human eye to move and refocus under perfect conditions and not nearly enough time for perception, comprehension, and recall [27]. A study by other researchers [7], in a simulated polling place using real BMDs deliberately hacked to alter one vote on each paper ballot, found that only 6.6% of voters told a pollworker something was wrong.¹⁵¹⁶ The same study found that among voters who examined their hand-marked ballots, half were unable to recall key features of ballots cast moments before, a prerequisite step for being able to recall their own ballot choices. This finding is broadly consistent with studies of effects like “change blindness” or “choice blindness,” in which human subjects fail to notice changes made to choices made only seconds before [19].

Suppose, then, that 10% of voters examine their paper ballots carefully enough to even *see* the candidate’s name recorded as their vote for legislator or county commissioner. Of those, perhaps only half will remember the name of the candidate they intended to vote for.¹⁷

Of those who notice that the vote printed is not the candidate they intended to vote for, what will they think, and what will they do? Will they think, “Oh, I must have made a mistake on the touchscreen,” or will they think, “Hey, the machine is cheating or malfunctioning!” There’s no way for the voter to know for sure—voters do make mistakes—and there’s *absolutely* no way for the voter to prove to a pollworker or election official that a BMD printed something other than what the voter entered on the

¹⁵You might think, “the voter really *should* carefully review their BMD-printed ballot.” But because the scientific evidence shows that voters *do not* [13] and cognitively *cannot* [16] perform this task well, legislators and election administrators should provide a voting system that counts the votes *as voters express them*.

¹⁶Studies of voter confidence about their ability to verify their ballots are not relevant: in typical situations, subjective confidence and objective accuracy are at best weakly correlated. The relationship between confidence and accuracy has been studied in contexts ranging from eyewitness accuracy [8, 12, 40] to confidence in psychological clinical assessments [14] and social predictions [15]. The disconnect is particularly severe at high confidence. Indeed, this is known as “the overconfidence effect.” For a lay discussion, see *Thinking, Fast and Slow* by Nobel economist Daniel Kahnemann [20].

screen.¹⁸¹⁹

Either way, polling-place procedures generally advise voters to ask a pollworker for a new ballot if theirs does not show what they intended. Pollworkers should void that BMD-printed ballot, and the voter should get another chance to mark a ballot. Anecdotal evidence suggests that many voters are too timid to ask, or don't know that they have the right to ask, or are not sure whom to ask. Even if a voter asks for a new ballot, training for pollworkers is uneven, and we are aware of no formal procedure for resolving disputes if a request for a new ballot is refused. Moreover, there is no sensible protocol for ensuring that BMDs that misbehave are investigated—nor can there be, as we argue below.

Let's summarize. If a machine alters votes on 5% of the ballots (enabling it to change the margin by 10%), and 10% of voters check their ballots carefully and 50% of the voters who check notice the error, then optimistically we might expect $5\% \times 10\% \times 50\%$ or 0.25% of the voters to request a new ballot and correct their vote.²⁰ This means that the machine will change the margin by 9.75% and get away with it.

In this scenario, 0.25% of the voters, one in every 400 voters, has requested a new ballot. You might think, “that’s a form of *detection* of the hacking.” But it isn't, as a practical matter: a few individual voters may have detected that there was a problem, but there's no procedure by which this translates into any action that election administrators can take to correct the outcome of the election. Polling-place procedures *cannot correct or deter hacking, or even reliably detect it*, as we discuss next. This is essentially the distinction between a system that is merely software independent and one that is contestable: a change to the software that alters the outcome might generate evidence for an alert, conscientious, individual voter, but it does not generate public evidence that an election official can rely on to conclude there is a problem.

Even if some voters notice that BMDs are altering votes, there's no way to correct the election outcome. That is, BMD voting systems are *not contestable, not defen-*

¹⁸You might think “the voter can prove it by showing someone that the vote on the paper doesn't

sible (and therefore *not strongly defensible*), and *not strongly software independent*. Suppose a state election official wanted to detect whether the BMDs are cheating, and correct election results, based on actions by those few alert voters who notice the error. What procedures could possibly work against the manipulation we are considering?

1. How about, “If at least 1 in 400 voters claims that the machine misrepresented their vote, void the entire election.”²¹ No responsible authority would implement such a procedure. A few dishonest voters could collaborate to invalidate entire elections simply by falsely claiming that BMDs changed their votes.
2. How about, “If at least 1 in 400 voters claims that the machine misrepresented their vote, then investigate.” Investigations are fine, but then what? The only way an investigation can ensure that the outcome accurately reflects what voters expressed to the BMDs is to void an election in which the BMDs have altered votes and conduct a new election. But how do you know whether the BMDs have altered votes, except based the claims of the voters?²² Furthermore, the investigation itself would suffer from the same problem as above: how can one distinguish between voters who detected BMD hacking or bugs from voters who just want to interfere with an election?

This is the essential security flaw of BMDs: few voters will notice and promptly report discrepancies between what they saw on the screen and what is on the BMD printout, and even when they do notice, there’s nothing appropriate that can be done. Even if election officials are convinced that BMDs malfunctioned, *there is no way to determine who really won*.

Therefore, BMDs should not be used by most voters.

Why can’t we rely on pre-election and post-election logic and accuracy testing, or parallel testing? Most, if not all, jurisdictions perform some kind of *logic and accuracy testing* (LAT) of voting equipment before elections. LAT generally involves voting on the equipment using various combinations of selections, then checking whether the

²¹Note that in many jurisdictions, far fewer than 400 voters use a given machine on election day

equipment tabulated the votes correctly. As the Volkswagen/Audi “Dieselgate” scandal shows, devices can be programmed to behave properly when they are tested but misbehave in use [11]. Therefore, LAT can never prove that voting machines performed properly in practice.

Parallel or “live” testing involves pollworkers or election officials using some BMDs at random times on election day to mark (but not cast) ballots with test patterns, then check whether the marks match the patterns. The idea is that the testing is not subject to the “Dieselgate” problem, because the machines cannot “know” they are being tested on election day.²³ As a practical matter, the number of tests required to provide a reasonable chance of detecting outcome-changing errors is prohibitive: it would leave no time for actual voting [37]. Moreover, it would require additional staff, infrastructure, and other resources.

Suppose, counterfactually, that it was practical to perform enough parallel testing to guarantee a large chance of detecting a problem if BMD hacking or malfunction altered electoral outcomes. Suppose, counterfactually, that election officials were required to conduct that amount of parallel testing during every election, and that the required equipment, staffing, infrastructure, and other resources were provided. Even then, the system would not be *strongly defensible*; that is, if testing detected a problem, there would be no way to determine who really won. The only remedy would be a new election.

Don’t voters need to check hand-marked ballots, too? It is always a good idea to check one’s work, but there is a substantial body of research (e.g., [28]) suggesting that preventing error as a ballot is being marked is a fundamentally different cognitive task than detecting an error on a previously marked ballot. In cognitively similar tasks, such as proof reading for non-spelling errors, ten percent rates of error detection are common [28, pp 167ff], whereas by carefully attending to the task of correctly marking their ballots, voters apparently can largely avoid marking errors.

A fundamental difference between hand-marked paper ballots and ballot-marking

correcting *their own errors*, while if BMDs are used, voters are also responsible for catching *machine errors, bugs, and hacking*. Voters are the *only* people who can detect such problems with BMDs—but, as explained above, if voters do find problems, there’s no way they can prove to poll workers or election officials that there were problems and no way to ensure that election officials take appropriate remedial action.

4 Other tradeoffs, BMDs versus hand-marked opscan

Supporters of ballot-marking devices advance several other arguments for their use.

- **Mark legibility.** A common argument is that a properly functioning BMD will generate clean, error-free, unambiguous marks, while hand-marked paper ballots may contain mistakes and stray marks that make it impossible to discern a voter’s intent. However appealing this argument seems at first blush, the data are not nearly so compelling. Experience with statewide recounts in Minnesota and elsewhere suggest that truly ambiguous handmade marks are very rare.²⁴ For instance, 2.9 million hand-marked ballots were cast in the 2008 Minnesota race between Al Franken and Norm Coleman for the U.S. Senate. In a manual recount, between 99.95% and 99.99% of ballots were unambiguously marked.^{25 26} In addition, usability studies of hand-marked bubble ballots—the kind in most common use in U.S. elections—indicate a *voter* error rate of 0.6%, much lower than the 2.5–3.7% error rate for machine-marked ballots [16].²⁷ Moreover, modern image-based opscan equipment (*digital scan machinery*) is better than older

²⁴States do need clear and complete regulations for interpreting voter marks.

²⁵“During the recount, the Coleman and Franken campaigns initially challenged a total of 6,655 ballot-interpretation decisions made by the human recounters. The State Canvassing Board asked the campaigns to voluntarily withdraw all but their most serious challenges, and in the end approximately 1,325 challenges remained. That is, approximately 5 ballots in 10,000 were ambiguous enough that one side or the other felt like arguing about it. The State Canvassing Board, in the end, classified all but 248 of these ballots as votes for one candidate or another. That is, approximately 1 ballot in 10,000 was ambiguous enough that the bipartisan recount board could not determine an intent to vote.” [1] See also

“marksense” machines at interpreting imperfect marks. Thus, mark legibility is not a good reason to adopt BMDs for all voters.

- **Undervotes, overvotes.** Another argument offered for BMDs is that the machines can alert voters to undervotes and prevent overvotes. That is true, but modern PCOS systems can also alert a voter to overvotes and undervotes, allowing a voter to eject the ballot and correct it.
- **Bad ballot design.** Ill-designed paper ballots, just like ill-designed touchscreen interfaces, may lead to unintentional undervotes [24]. For instance, the 2006 Sarasota, Florida, touchscreen ballot was badly designed. The 2018 Broward County, Florida, opscan ballot was badly designed: it violated three separate guidelines from the EAC’s 2007 publication, “Effective Designs for the Administration of Federal Elections, Section 3: Optical scan ballots.” [39] In both of these cases (touchscreens in 2006, hand-marked optical-scan in 2018), undervote rates were high. The solution is to follow standard, published ballot-design guidelines and other best practices, both for touchscreens and for hand-marked ballots [3, 24].
- **Low-tech paper-ballot fraud.** All paper ballots, however they are marked, are vulnerable to *loss*, *ballot-box stuffing*, *alteration*, and *substitution* between the time they are cast and the time they are recounted. That’s why it is so important to make sure that ballot boxes are always in multiple-person (preferably bipartisan) custody whenever they are handled, and that appropriate physical security measures are in place. Strong, verifiable chain-of-custody protections are essential.

Hand-marked paper ballots are vulnerable to alteration by anyone with a pen. Both hand-marked and BMD-marked paper ballots are vulnerable to substitution: anyone who has poorly supervised access to a legitimate BMD during election day can create fraudulent ballots, not necessarily to deposit them in the ballot box immediately (in case the ballot box is well supervised on election day) but with the hope of substituting it later in the chain of custody.²⁸

All those attacks (on hand-marked and on BMD-marked paper ballots) are fairly low-tech. There are also higher-tech ways of producing ballots indistinguishable from BMD-marked ballots for substitution into the ballot box if there is inadequate chain-of-custody protection.

is typically a BMD or a DRE. When the accessible voting technology is not the same as what most voters vote on—when it is used by very few voters—it may happen that the accessible technology is ill-maintained or even (in some polling places) not even properly set up by pollworkers. This is a real problem. One proposed solution is to require all voters to use the same BMD or all-in-one technology. But the failure of some election officials to properly maintain their accessible equipment is not a good reason to adopt BMDs for *all* voters. Among other things, it would expose all voters to the security flaws described above.²⁹ Other advocates object to the idea that disabled voters must use a different method of marking ballots, arguing that their rights are thereby violated. Both HAVA and ADA require reasonable accommodations for voters with physical and cognitive impairments, but neither law requires that those accommodations must be used by all voters. To best enable and facilitate participation by all voters, each voter should be provided with a means of casting a vote best suited to their abilities.

- **Ballot printing costs.** Preprinted optical-scan ballots cost 20–50 cents each.³⁰ Blank cards for BMDs cost up to 15 cents each, depending on the make and model of BMD.³¹ But optical-scan ballots must be preprinted for as many voters as *might* show up, whereas blank BMD cards are consumed in proportion to how many voters *do* show up. The Open Source Election Technology Institute (OSET) conducted an independent study of total life cycle costs³² for hand-marked paper ballots and BMDs in conjunction with the 2019 Georgia legislative debate regarding BMDs [26]. OSET concluded that, even in the most optimistic (i.e., lowest cost) scenario for BMDs and the most pessimistic (i.e., highest cost) scenario for hand-marked paper ballots and ballot-on-demand (BOD) printers—which can print unmarked ballots as needed—the total lifecycle costs for BMDs would be higher than the corresponding costs for hand-marked paper ballots.³³
- **Vote centers.** To run a vote center that serves many election districts with different ballot styles, one must be able to provide each voter a ballot containing

²⁹Also, some accessibility advocates argue that requiring disabled voters to use BMDs compromises their privacy since hand-marked ballots are easily distinguishable from machine marked ballots. That issue can be addressed without BMDs-for-all: Accessible BMDs are already available and in use that mark ballots with marks that cannot easily be distinguished from hand-marked ballots.

³⁰Single-sheet (one- or two-side) ballots cost 20–28 cents; double-sheet ballots needed for elections

the contests that voter is eligible to vote in, possibly in a number of different languages. This is easy with BMDs, which can be programmed with all the appropriate ballot definitions. With preprinted optical-scan ballots, the PCOS can be programmed to *accept* many different ballot styles, but the vote center must still maintain *inventory* of many different ballots. BOD printers are another economical alternative for vote centers.³⁴

- **Paper/storage.** BMDs that print summary cards rather than full-face ballots can save paper and storage space. However, many BMDs print full-face ballots—so they do not save storage—while many BMDs that print summary cards (which could save storage) use thermal printers and paper that is fragile and can fade in a few months.³⁵

Advocates of hand-marked paper ballot systems advance these additional arguments.

- **Cost.** Using BMDs for all voters substantially increases the cost of acquiring, configuring, and maintaining the voting system. One PCOS can serve 1200 voters in a day, while one BMD can serve only about 260 [33]—though both these numbers vary greatly depending on the length of the ballot and the length of the day. OSET analyzed the relative costs of acquiring BMDs for Georgia’s nearly seven million registered voters versus a system of hand-marked paper ballots, scanners, and BOD printers [26]. A BMD solution for Georgia would cost taxpayers between 3 and 5 times more than a system based on hand-marked paper ballots. Open-source systems might eventually shift the economics, but current commercial universal-use BMD systems are more expensive than systems that use hand-marked paper ballots for most voters.
- **Mechanical reliability and capacity.** Pens are likely to have less downtime than BMDs. It is easy and inexpensive to get more pens and privacy screens when additional capacity is needed. If a precinct-count scanner goes down, people can still mark ballots with a pen; if the BMD goes down, voting stops. Thermal

³⁴Ballot-on-demand printers *may* require maintenance such as replacement of toner cartridges. This is readily accomplished at a vote center with a professional staff. Ballot-on-demand printers may be a less attractive option for many small precincts on election day, where there is no professional staff—but on

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printers used in DREs with VVPAT are prone to jams; those in BMDs might have similar flaws.

These secondary pros and cons of BMDs do not outweigh the primary security and accuracy concern: BMDs, if hacked or erroneously programmed, can change votes in a way that is not correctable. BMD voting systems are not contestable or defensible. Audits that rely on BMD printout cannot make up for this defect in the paper trail: they cannot reliably detect or correct problems that altered election outcomes.

Barcodes

A controversial feature of some BMDs allows them to print 1-dimensional or 2-dimensional barcodes on the paper ballots. A 1-dimensional barcode resembles the pattern of vertical lines used to identify products by their universal product codes. A 2-dimensional barcode or QR code is a rectangular area covered in coded image *modules* that encode more complex patterns and information. BMDs print barcodes on the same paper ballot that contains human-readable ballot choices. Voters using BMDs are expected to verify the human-readable printing on the paper ballot card, but the presence of barcodes with human-readable text poses some significant problems.

- **Barcodes are not human readable.** The whole purpose of a paper ballot is to be able to recount (or audit) the *voters'* votes in a way independent of any (possibly hacked or buggy) computers. If the official vote on the ballot card is the barcode, then it is impossible for the voters to verify that the official vote they cast is the vote they expressed. Therefore, before a state even *considers* using BMDs that print barcodes (and we do not recommend doing so), the State must ensure by statute that recounts and audits are based *only* on the human-readable portion of the paper ballot. Even so, audits based on untrustworthy paper trails suffer from the verifiability the problems outlined above.
- **Ballot cards with barcodes contain two different votes.** Suppose a state does ensure by statute that recounts and audits are based on the human-readable portion

the risk that the input-processing software can be vulnerable to attack via deliberately ill-formed input. Over the past two decades, many such vulnerabilities have been documented on *each* of these channels (including barcode readers) that, in the worst case, give the attacker complete control of a system.³⁶ If an attacker were able to compromise a BMD, the barcodes are an attack vector for the attacker to take over an optical scanner (PCOS or CCOS), too. Since it is good practice to close down all such unneeded attack vectors into PCOS or CCOS voting machines (e.g., don't connect your PCOS to the Internet!), it is also good practice to avoid unnecessary attack channels such as barcodes.

End-to-End Verifiable BMDs

In all BMD systems currently on the market, and in all BMD systems certified by the EAC, the printed ballot or ballot summary is the only channel by which voters can verify the correct recording of their ballots, independently of the computers. The analysis in this paper applies to all of those BMD systems.

There is a class of voting systems called “end-to-end verifiable” (E2E-V), which provide an alternate mechanism for voters to verify their votes [2]. Some E2E-V systems incorporate BMDs, for instance STAR-Vote³⁷ [5]. As we discuss above in Section 1, such systems are not contestable, defensible, or strongly software independent. In any event, no E2E-V system is currently certified by the EAC, nor to our knowledge is any such system under review for certification, nor are any of the 5 major voting-machine vendors offering such a system for sale.³⁸

³⁶An example of a barcode attack is based on the fact that many commercial barcode-scanner components (which system integrators use to build cash registers or voting machines) treat the barcode scanner using the same operating-system interface as if it were a keyboard device; and then some operating systems allow “keyboard escapes” or “keyboard function keys” to perform unexpected operations.

³⁷The STAR-Vote system is actually a DRE+VVPAT system with a smart ballot box, rather than a BMD system: voters interact with a device that captures their votes electronically and prints a paper record that voters can inspect, but the electronic votes are held “in limbo” until the paper ballot is deposited in the smart ballot box. The ballot box does not read the votes from the ballot; rather, depositing

5 Insecurity of All-in-One BMDs

Some voting machines incorporate a BMD interface, printer, and optical scanner into the same cabinet. Other DRE+VVPAT voting machines incorporate ballot-marking, tabulation, and paper-printout retention, but without scanning. These are often called “all-in-one” voting machines. To use an all-in-one machine, the voter makes choices on a touchscreen or through a different accessible interface. When the selections are complete, the BMD prints the completed ballot for the voter to review and verify, before depositing the ballot in a ballot box attached to the machine.

Such machines are especially unsafe: like any BMD described in Section 3 they are not contestable or defensible, but in addition, if hacked they can print votes onto the ballot *after* the voter last inspects the ballot.

- The ES&S ExpressVote (in all-in-one mode) allows the voter to mark a ballot by touchscreen or audio interface, then prints a paper ballot card and ejects it from a slot. The voter has the opportunity to review the ballot, then the voter redeposits the ballot into the same slot, where it is scanned and deposited into a ballot box.
- The ES&S ExpressVoteXL allows the voter to mark a ballot by touchscreen or audio interface, then prints a paper ballot and displays it under glass. The voter has the opportunity to review the ballot, then the voter touches the screen to indicate “OK,” and the machine pulls paper ballot up (still under glass) and into the integrated ballot box.
- The Dominion ImageCast Evolution (ICE) allows the voter to deposit a hand-marked paper ballot, which it scans and drops into the attached ballot box. *Or*, a voter can use a touchscreen or audio interface to direct the marking of a paper ballot, which the voting machine ejects through a slot for review; then the voter redeposits the ballot into the slot, where it is scanned and dropped into the ballot box.

In all three of these machines, the ballot-marking printer is in the same paper path as the mechanism to deposit marked ballots into an attached ballot box. This opens up

and ExpressVoteXL, the normal software indicates an undervote with the words NO SELECTION MADE on the ballot summary card. Hacked software could simply leave a blank space there (most voters wouldn't notice the difference), and then fill in that space and add a matching bar code after the voter has clicked "cast this ballot."

An even worse feature of the ES&S ExpressVote and the Dominion ICE is the *auto-cast* configuration setting (in the manufacturer's standard software) that allows the voter to indicate, "don't eject the ballot for my review, just print it and cast it without me looking at it." If fraudulent software were installed in the ExpressVote, it could change *all* the votes of any voter who selected this option, because the voting machine software would know *in advance of printing* that the voter had waived the opportunity to inspect the printed ballot. We call this auto-cast feature "permission to cheat" [4].

Regarding these all-in-one machines, we conclude:

- Any machine with ballot printing in the same paper path with ballot deposit is not *software independent*; it is *not* the case that "an error or fault in the voting system software or hardware cannot cause an undetectable change in election results." Therefore such all-in-one machines do not comply with the VVSG 2.0 (the Election Assistance Commission's Voluntary Voting Systems Guidelines). Such machines are not contestable or defensible, either.
- All-in-one machines on which all voters use the BMD interface to mark their ballots (such as the ExpressVote and ExpressVoteXL) *also* suffer from the same serious problem as ordinary BMDs: most voters do not review their ballots effectively, and elections on these machines are not contestable or defensible.
- The auto-cast option for a voter to allow the paper ballot to be cast without human inspection is particularly dangerous, and states must insist that vendors disable or eliminate this mode from the software. However, even disabling the auto-cast feature does not eliminate the risk of undetected vote manipulation.

Remark. The Dominion ImageCast Precinct ICP320 is a precinct-count optical scanner (PCOS) that also contains an audio+buttons ballot-marking interface for disabled

6 Conclusion

Ballot-Marking Devices produce ballots that do not necessarily record the vote expressed by the voter when they enter their selections on the touchscreen: hacking, bugs, and configuration errors can cause the BMDs to print votes that differ from what the voter entered and verified electronically. Because outcome-changing errors in BMD printout do not produce public evidence, BMD systems are not *contestable*. Because there is no way to generate convincing public evidence that reported outcomes are correct despite any BMD malfunctions that might have occurred, BMD systems are not *defensible*. Therefore, BMDs should not be used by voters who can hand mark paper ballots.

All-in-one voting machines, which combine ballot-marking and ballot-box-deposit into the same paper path, are even worse. They have all the disadvantages of BMDs (they are not contestable or defensible), and they can mark the ballot after the voter has inspected it. Therefore they are not even *software independent*, and should not be used by those voters who are capable of marking, handling, and visually inspecting a paper ballot.

When computers are used to record votes, the original transaction (the voter's expression of the votes) is not documented in a verifiable way.³⁹ When pen-and-paper is used to record the vote, the original expression of the vote *is* documented in a verifiable way (if demonstrably secure chain of custody of the paper ballots is maintained). Audits of elections conducted with hand-marked paper ballots, counted by optical scanners, can ensure that reported election outcomes are correct. Audits of elections conducted with BMDs *cannot* ensure that reported outcomes are correct.

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