

Subject: Centralized Subversion of Election Vote Totals and Paper Tapes  
Analyst: Jeffrey Lenberg  
Date: 6/9/2021

## **Executive Summary**

The Dominion Voting Systems Election Management System (EMS) and ImageCast Precinct (ICP) are susceptible to subversion by a modification of the election project files located in a repository at ElectionSource. ElectionSource technicians were responsible for provisioning the election project files for the November 3, 2020 general election in Antrim County along with at least twenty-two (22) other counties in Michigan according to the log files on the Antrim County Election Management System. The subversion can be accomplished through the modification of a single file for each tabulator contained in the ElectionSource repository of election project files. This subversion results in the manipulation of the votes recorded both in the county's results files on the compact flash (CF) cards and on the paper tapes printed by the ICP tabulators in each precinct. This subversion is undetectable using the routine canvassing process because the ICP paper tape matches the vote total reports from the EMS that are read from the CF cards.

The ElectionSource technicians responsible for provisioning and updating the election project files for Antrim County created the election project files on their corporate computing infrastructure (laptops, servers, cloud accounts, etc). The updated election project files deployed by the ElectionSource technicians were simply installed into Antrim County's election systems. It is likely that a complete repository exists at ElectionSource that contains all the election project files for the entire list of Michigan counties supported by ElectionSource.

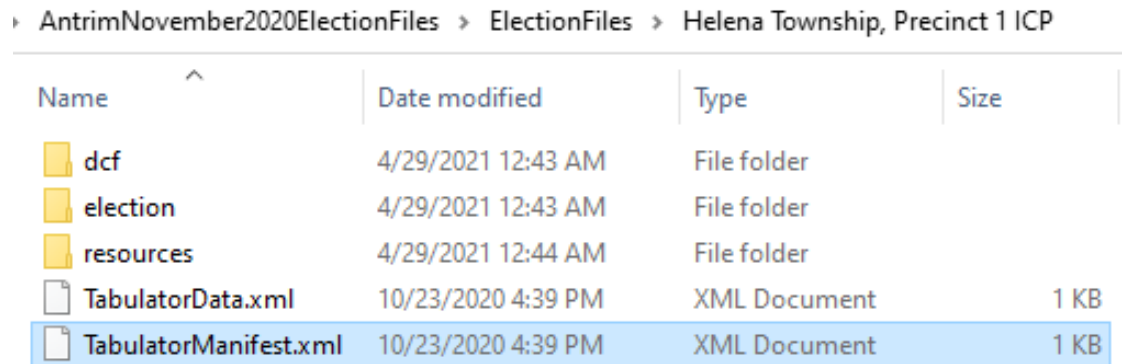
The subversion of the EMS and ICP is accomplished by modifying a single file contained in the ElectionSource repository, and then having that specific file along with the rest of the election project files transferred onto the compact flash cards either at ElectionSource or the county running the election. Once the compact flash cards are provisioned containing the subversion, no additional modifications need to be made on the EMS or ICPs to modify the vote totals.

The ability to modify a single file in the ElectionSource repository used by their field technicians reveals a major attack vector for fraud to manipulate votes not just in Antrim County, but across all counties in Michigan where ElectionSource provides contractor support to the election process. To be clear, all of the counties in Michigan where ElectionSource provides pre-configured election project files are vulnerable to this attack and the resulting subversion of the vote totals at the EMS and paper tapes from the ICP tabulator would match precisely despite the vote totals being manipulated in a fraudulent fashion.

## Details

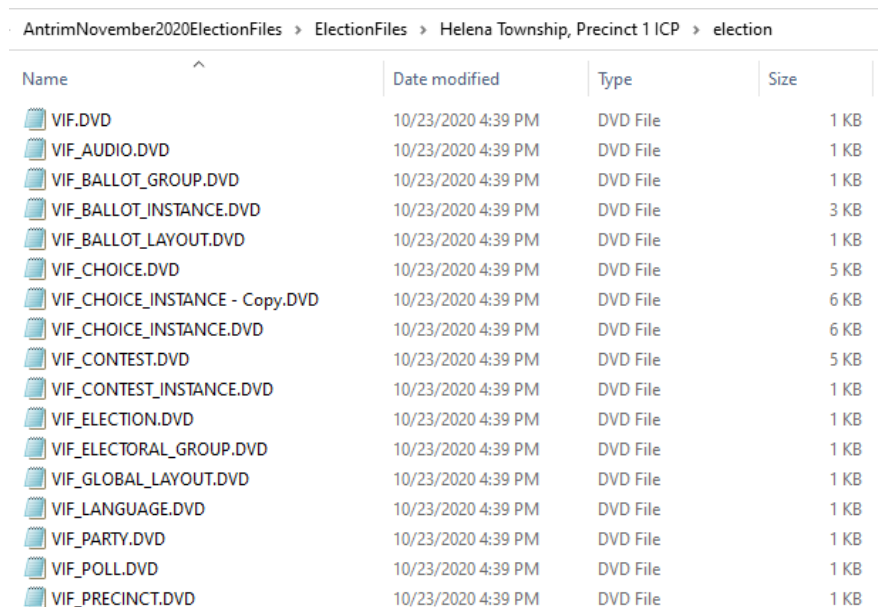
The Dominion Election Management System (EMS) and the ImageCast Precinct (ICP) are susceptible to subversion through the modification of a single file per tabulator. This single file is part of a package of files that are deployed on the compact flash cards that are used in each ICP tabulator in each individual precinct.

The name of the file is “VIF\_CHOICE\_INSTANCE.DVD” and it is contained in the directory for the specific precinct ICP it is meant to be deployed to. See an example in Figure 1 of the directory structure for the files stored on the compact flash cards. Note: the compact flash card contents are encrypted by default, however, Dominion or ElectionSource would have the tools and keys to decrypt, modify, and re-encrypt these election project files.



Name	Date modified	Type	Size
dcf	4/29/2021 12:43 AM	File folder	
election	4/29/2021 12:43 AM	File folder	
resources	4/29/2021 12:44 AM	File folder	
TabulatorData.xml	10/23/2020 4:39 PM	XML Document	1 KB
TabulatorManifest.xml	10/23/2020 4:39 PM	XML Document	1 KB

*Figure 1 - Election Project File Directory Structure for Compact Flash Cards*



Name	Date modified	Type	Size
VIF.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_AUDIO.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_BALLOT_GROUP.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_BALLOT_INSTANCE.DVD	10/23/2020 4:39 PM	DVD File	3 KB
VIF_BALLOT_LAYOUT.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_CHOICE.DVD	10/23/2020 4:39 PM	DVD File	5 KB
VIF_CHOICE_INSTANCE - Copy.DVD	10/23/2020 4:39 PM	DVD File	6 KB
VIF_CHOICE_INSTANCE.DVD	10/23/2020 4:39 PM	DVD File	6 KB
VIF_CONTEST.DVD	10/23/2020 4:39 PM	DVD File	5 KB
VIF_CONTEST_INSTANCE.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_ELECTION.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_ELECTORAL_GROUP.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_GLOBAL_LAYOUT.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_LANGUAGE.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_PARTY.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_POLL.DVD	10/23/2020 4:39 PM	DVD File	1 KB
VIF_PRECINCT.DVD	10/23/2020 4:39 PM	DVD File	1 KB

*Figure 2 - Election Project DVD Files (Encrypted)*

In addition, the encryption algorithm used to protect the data on the compact flash cards is AES-128 which is known to be easily broken via ciphertext only attack. Moreover, the AES-128 keys for the election project files are stored on the EMS itself within the database (see Logan expert report 4/9/2021).

The VIF\_CHOICE\_INSTANCE.DVD file is a binary file that contains the instructions on how the tabulator will process ballots, how vote totals are assigned to each candidate, and ultimately how the paper tapes and results files are generated. Simply editing the VIF\_CHOICE\_INSTANCE.DVD file and modifying the mapping of the bullets on the ballots (vote selections) to the candidates allows for manipulation of the vote results.

Figure 3 and Figure 4 are the output of a purpose-built forensics analysis program that decrypts and decodes the data in the compact flash results file and associates it with the controlling record in the VIF\_CHOICE\_INSTANCE.DVD configuration file. The highlighted area in Figure 4 shows the manipulation of the raw binary data that creates the modification of both the paper tapes and the results file.

```
Contest 689: 7 choices
  Over Votes: 0 | Under Votes: 0 | Cross Votes: 0 | Double Votes: 0
  Choice | Marks | Config Index | Data
  Biden 3016 | 2 | 225 | b'00000bc300000000006001300004f1a0000a54800000000000100000008'
  Trump 3017 | 4 | 256 | b'00000bc900000000006001500004f1a0000b35800000000000200000021'
  Jorgensen 3018 | 1 | 287 | b'00000bca00000000006001700004f1a0000c16800000000000300000079'
  Blankenship 3019 | 0 | 318 | b'00000bc500000000006001900004f1a0000cf780000000000040000003c'
  Hawkings 3020 | 0 | 349 | b'00000bcc00000000006001b00004f1a0000dd8800000000000500000095'
  De La Fuente 3021 | 0 | 380 | b'00000bcd00000000006001d00004f1a0000eb98000000000006000000ab'
```

Figure 3 - Run of 7 Ballots with No Manipulation

```
Contest 689: 7 choices
  Over Votes: 0 | Under Votes: 0 | Cross Votes: 0 | Double Votes: 0
  Choice | Marks | Config Index | Data
  Biden 3016 | 4 | 256 | b'00000bc800000000006001500004f1a0000b35800000000000200000021'
  Trump 3017 | 2 | 225 | b'00000bc900000000006001300004f1a0000a54800000000000100000008'
  Jorgensen 3018 | 1 | 287 | b'00000bca00000000006001700004f1a0000c16800000000000300000079'
  Blankenship 3019 | 0 | 318 | b'00000bc500000000006001900004f1a0000cf780000000000040000003c'
  Hawkings 3020 | 0 | 349 | b'00000bcc00000000006001b00004f1a0000dd8800000000000500000095'
  De La Fuente 3021 | 0 | 380 | b'00000bcd00000000006001d00004f1a0000eb98000000000006000000ab'
```

Figure 4 - Run of 7 Ballots with Manipulation

The output from this subversion results in the ICP tabulator creating fraudulent paper tapes that do not match the votes processed on the paper ballots along with results files written to the compact flash card that reflect the same manipulated vote totals. The results files on the compact flash cards are also fraudulent and will be processed normally by the EMS showing the same fraudulent vote totals matching the paper tape. This subversion is undetectable in the current canvassing

process, as the paper tapes and vote totals reported on the EMS will precisely match despite the fact they have been fraudulently manipulated.

### Simulated Election Validating Central Subversion

In order to validate the central subversion, a simulated election was run with the ballots listed in Appendix A. The breakdown of the Presidential contest votes on the ballots are:

- 2 for Biden
- 4 for Trump
- 1 for Jorgenson

Note that the same ballots were run twice in the same sequence, thus a total of 14 ballots were run in all.

Using the subversion in Figure 4 the following election results were generated.

President and Vice President of the United States (1)	
Joseph R. Biden / Kamala D. Harris (Democrat):	8
Donald J. Trump / Michael R. Pence (Republican):	4
Jo Jorgensen / Jeremy Cohen (Libertarian):	2
Don Blankenship / William Mohr (U.S. Taxpayers):	0
Howie Hawkins / Angela Walker (Green):	0
Rocky De La Fuente / Darcy Richardson (Natural Law):	0
Write-in:	0
Total Votes:	14

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United States Senator for State (1)

*Figure 5 - The Tabulator Paper Tape Showing Modified Totals*

Contest: **President and Vice President of the United States**  
 Number Of Postions : **1**  
 Precinct Portion:  
 Ballot Manifestation : **0**

↓ Ballot Statistics

↑ Contest Results

Overvotes:   
 Undervotes:   
 Blank:   
 Double Votes:   
 Invalid Votes:   
 Writein Overrides:

↑ Candidate Results

Name	Party	Votes
Joseph R. Biden / Kamala D. Harris	DEM	8
Donald J. Trump / Michael R. Pence	REP	4
Jo Jorgensen / Jeremy Cohen	LIB	2
Don Blankenship / William Mohr	UST	0
Howie Hawkins / Angela Walker	GRN	0
Rocky De La Fuente / Darcy Richardson	NLP	0
Write-in		0

*Figure 6 - EMS Vote Total Modified*

It is crucial to realize that no access to the EMS is required for an attacker to modify the election outcomes in any precinct for any tabulator. There is no need to modify the EMS database locally in any manner for this subversion to effectively modify both the paper tape and EMS results. This subversion does defeat the canvassing process that relies on discrepancies in the paper tape and EMS electronic totals to be found by human inspection. Only the original ballots would show the true votes during a one-hundred percent paper ballot audit process.

In addition, the access needed for an attacker to utilize this subversion would be confined to Election Source and their central repository of election files used for provisioning elections across the State of Michigan. The subversion could be used by

a malicious insider or a remote cyber attacker to modify election results across the State of Michigan with impunity.

**Other Subversion Outcomes**

There are other variants of this same subversion that include the modification of the “VIF\_BALLLOT\_INSTANCE.DVD” file, the table below describes the possible outcomes when modifying the VIF\_CHOICE\_INSTANCE.DVD file and/or the VIF\_BALLLOT\_INSTANCE.DVD file.

Note: Ballots are ground truth.		05/22/21		
VIF_CHOICE_INSTANCE		VIF_BALLLOT_INSTANCE	PAPER TAPE	RESULTS FILE
Modified		Unmodified	Modified	Modified
Unmodified		Modified	Modified	Unmodified
Modified		Modified	Unmodified	Modified

*Figure 7 - Variants of Subversions*

The combination of modifications to VIF\_CHOICE\_INSTANCE and VIF\_BALLLOT\_INSTANCE allow for an attacker to choose a variation where either paper tape or the results file are modified alone, see Figure 7. While this report focuses on modifying both the paper tape and results file to match the manipulated vote totals, it is conceivable that an attacker may wish to employ a variant to provide plausible deniability that the subversion was a “technical glitch” versus a fraudulent activity.

## Provisioning the Compact Flash Cards in Antrim County

The UserLog table indicates there were very few compact flash cards provisioned using the EMS for Antrim County. In fact, the only compact flash card provisioning activities noted in the log files were for Central Lake Township, Precinct 1, by Election Source on September 25<sup>th</sup>, and Mancelona Township Precinct 1 and 2 by Antrim County on October 23<sup>rd</sup>. In addition, Antrim County provisioned Central Lake Township Precinct on November 5<sup>th</sup>, see Figure 8.

<b>executedCommand</b>	<b>operationTimestamp</b>
CF card for tabulator Central Lake Township, Precinct 1 ICP has been programmed.	2020-09-25 10:20:39.517
Backup CF card for tabulator Central Lake Township, Precinct 1 ICP has been initialized.	2020-09-25 10:21:07.440
CF card for tabulator Central Lake Township, Precinct 1 ICP has been programmed.	2020-09-25 10:24:36.527
Backup CF card for tabulator Central Lake Township, Precinct 1 ICP has been initialized.	2020-09-25 10:24:59.477
CF card for tabulator Mancelona Township, Precinct 1 ICP has been programmed.	2020-10-23 16:46:25.477
Backup CF card for tabulator Mancelona Township, Precinct 1 ICP has been initialized.	2020-10-23 16:46:42.297
CF card for tabulator Mancelona Township, Precinct 2 ICP has been programmed.	2020-10-23 16:47:21.703
Backup CF card for tabulator Mancelona Township, Precinct 2 ICP has been initialized.	2020-10-23 16:47:36.250
CF card for tabulator Central Lake Township, Precinct 1 ICP has been programmed.	2020-11-05 10:22:29.563
Backup CF card for tabulator Central Lake Township, Precinct 1 ICP has been initialized.	2020-11-05 10:22:46.097

*Figure 8 - UserLog Table Showing Compact Flash Card Provisioning*

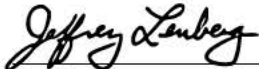
Only a small number of ImageCast-X (ICX) Ballot Marking Device Smart Cards were found to have been provisioned in the UserLog table on the Antrim County EMS including Custer Township Tabulator 20, Banks Township Tabulator 17, Chestonia Township Tabulator 19 by ElectionSource, see Figure 9. Mancelona Township Tabulator 27 was provisioned by Antrim County. All other smart cards have no log evidence of how or who provisioned them.

executedCommand	operationTimestamp
Smart Card for user Admin has been programmed for tabulator 20.Custer Township, Precinct 1 ICX.	2020-09-22 16:03:32.160
Smart Card for user Admin has been programmed for tabulator 17.Banks Township, Prec nct 1 ICX.	2020-09-23 13:58:38.893
Smart Card for user Admin has been programmed for tabulator 17.Banks Township, Prec nct 1 ICX.	2020-09-23 14:00:19.220
Smart Card for user Admin has been programmed for tabulator 19.Chestonia Township, Prec nct 1 ICX.	2020-09-23 14:47:09.553
Smart Card for user Admin has been programmed for tabulator 27.Mancelona Township, Prec ncts 1, 2 ICX.	2020-10-23 17:00:46.280

*Figure 9 - UserLog Table Excerpt Showing ICX Smart Cards Provisioning*

The conclusion regarding the provisioning of the compact flash/smart cards for Antrim County is that only a limited number are recorded in the user log. The remaining compact flash/smart cards could have been provisioned via ElectionSource using their own computing infrastructure as there is no evidence that function was performed using the Antrim County EMS.

Under the penalties of perjury, I declare that I have read the foregoing report and that facts stated in it are true.

  
 \_\_\_\_\_  
 Jeffrey Lenberg

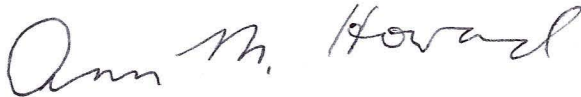


**MICHIGAN NOTARY ACKNOWLEDGEMENT**

State of Michigan  
County of Oakland

The foregoing instrument was acknowledged before me on this 9th day of June, 2021 by Jeffrey Lenberg.

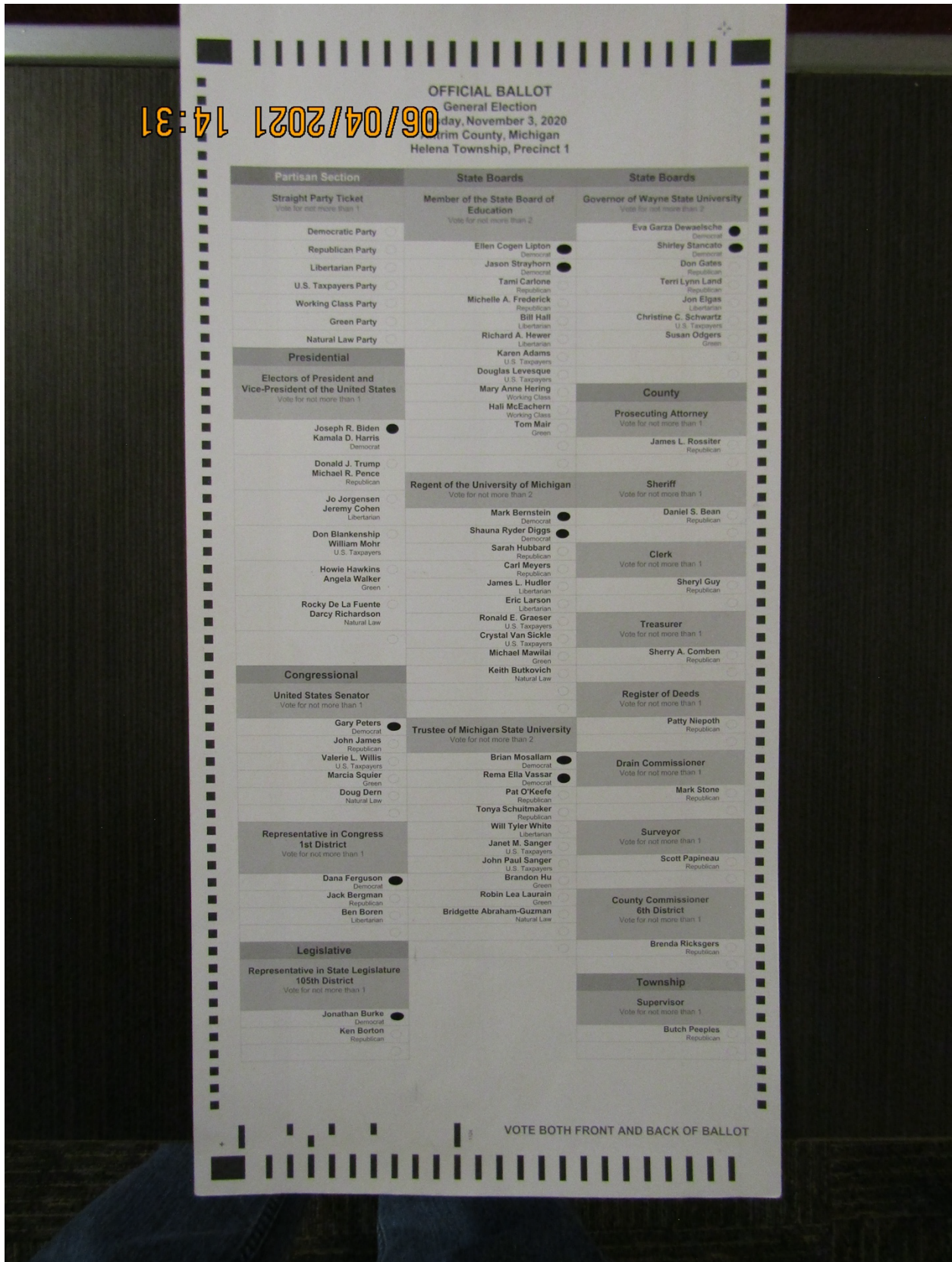
Notary Public Signature:

A handwritten signature in cursive script that reads "Ann M. Howard". The signature is written in dark ink and is positioned below the "Notary Public Signature:" label.

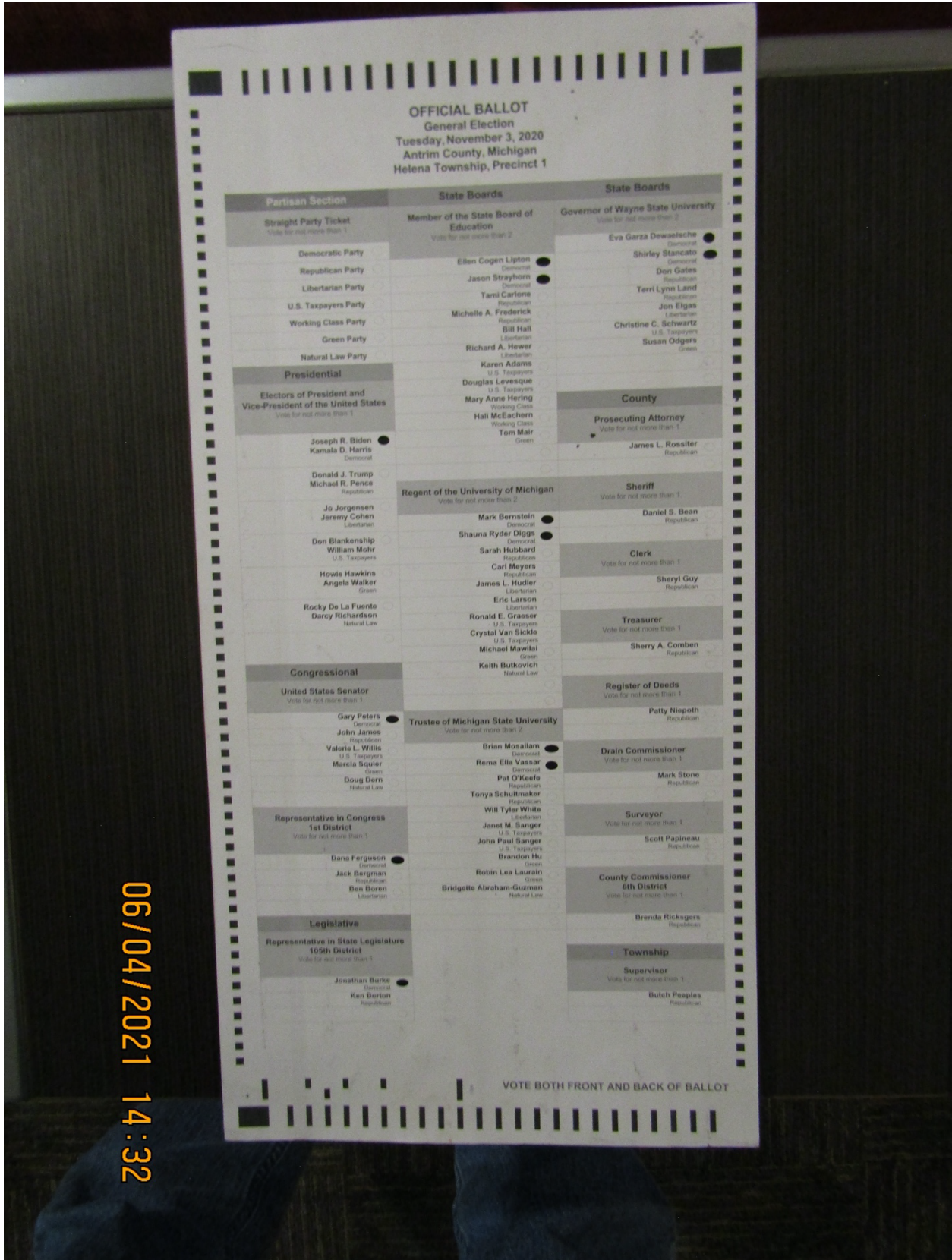
Notary Printed Name: Ann M. Howard  
Acting in the County of: Oakland  
My Commission Expires: 2/24/2023

**Appendix A**  
Ballots used for this test.

13:41 06/04/2021

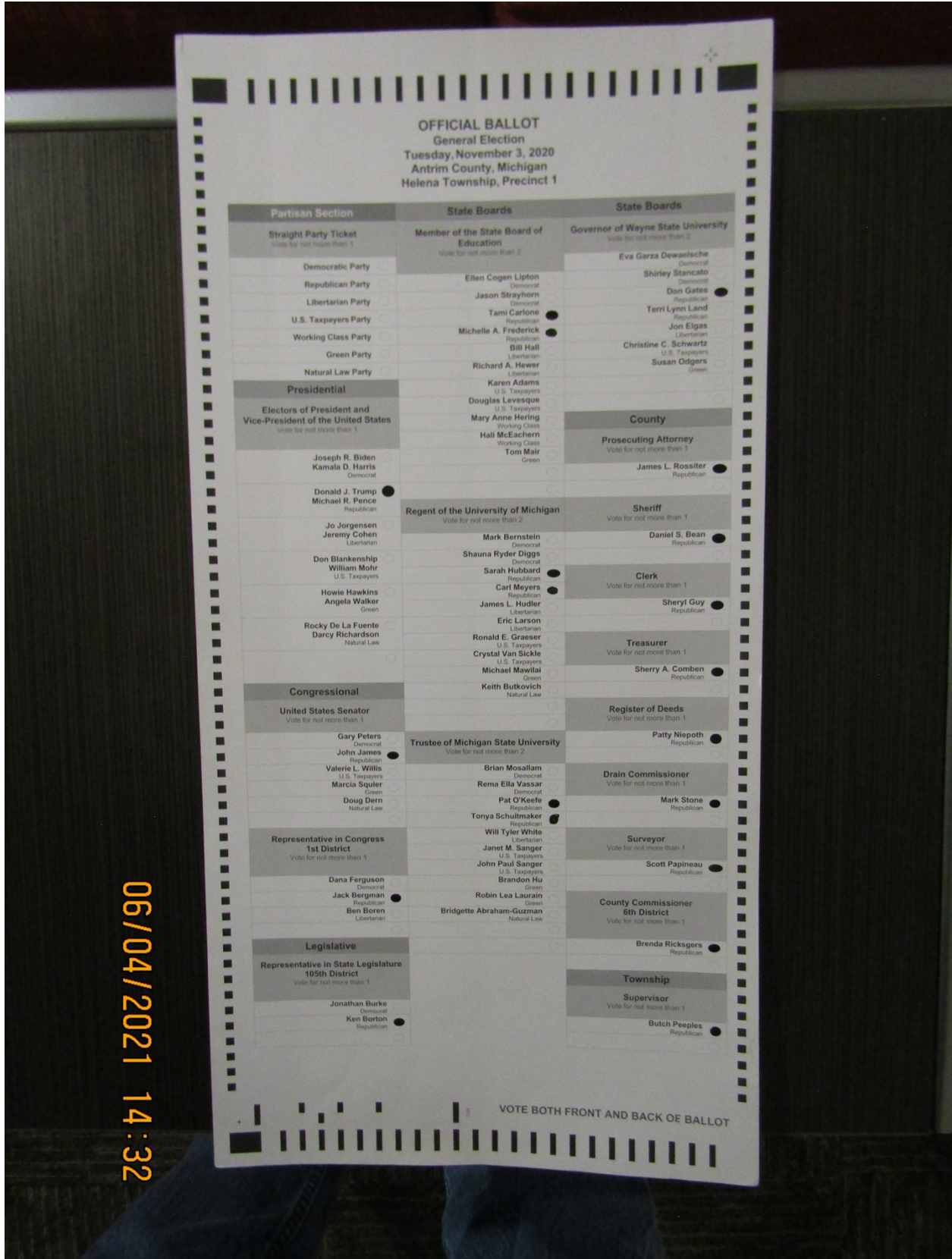


Appendix A  
Ballots used for this test.



06/04/2021 14:32

Appendix A  
Ballots used for this test.



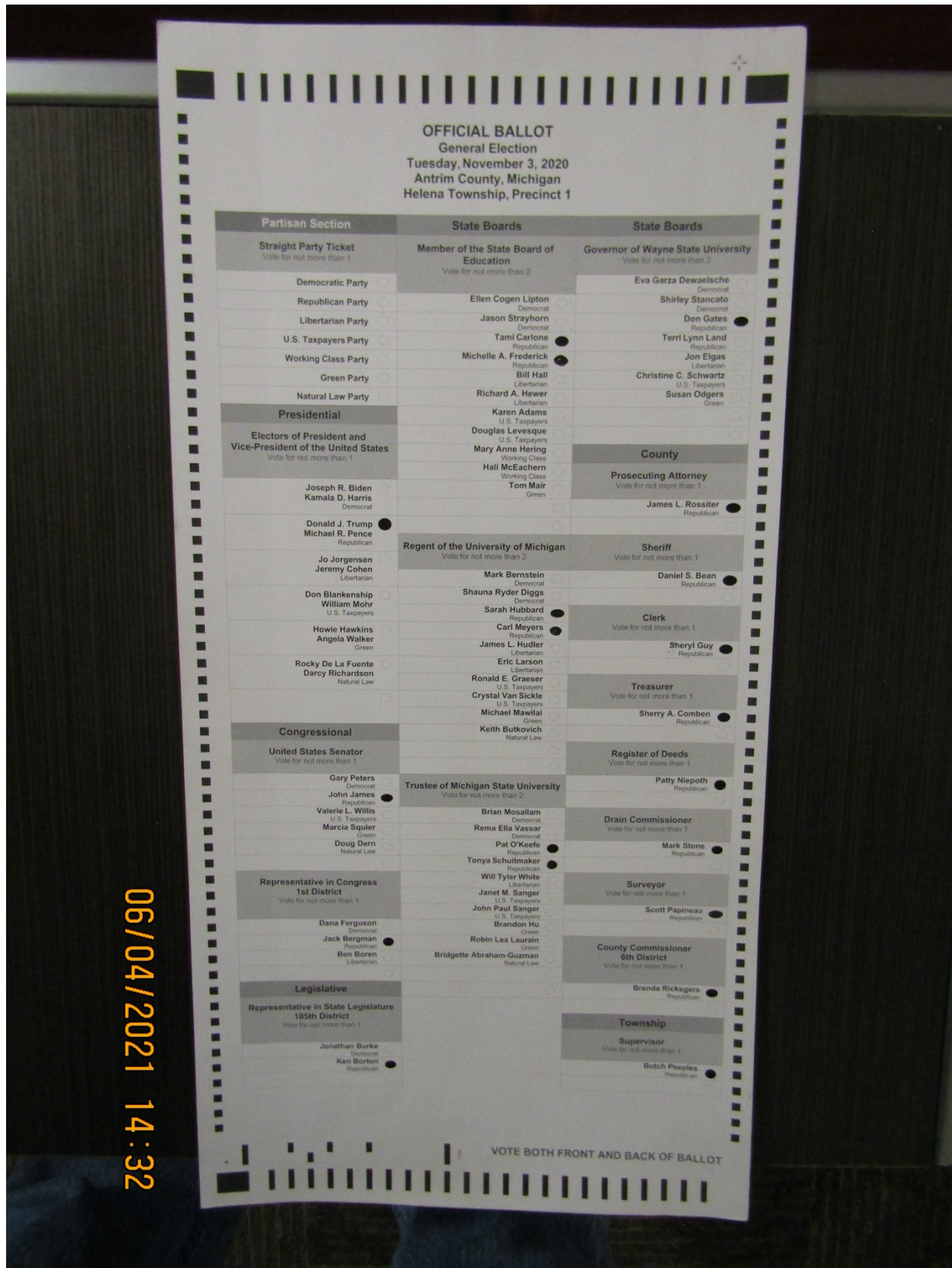
06/04/2021 14:32

**OFFICIAL BALLOT**  
General Election  
Tuesday, November 3, 2020  
Antrim County, Michigan  
Helena Township, Precinct 1

Partisan Section	State Boards	State Boards
<b>Straight Party Ticket</b> Vote for not more than 1	<b>Member of the State Board of Education</b> Vote for not more than 2	<b>Governor of Wayne State University</b> Vote for not more than 2
Democratic Party	Elten Cogen Lipton Democrat	Eva Garza Dewalscha Democrat
Republican Party	Jason Strayhorn Democrat	Shirley Stancato Democrat
Libertarian Party	Tami Carlone Republican	Don Gates Republican
U.S. Taxpayers Party	Michelle A. Frederick Republican	Terri Lynn Land Republican
Working Class Party	Bill Hall Libertarian	Jon Elgas Libertarian
Green Party	Richard A. Hewer Libertarian	Christine C. Schwartz U.S. Taxpayers
Natural Law Party	Karen Adams U.S. Taxpayers	Susan Odgers Green
<b>Presidential</b>	<b>Regent of the University of Michigan</b> Vote for not more than 2	<b>County</b>
<b>Electors of President and Vice-President of the United States</b> Vote for not more than 1	Douglas Levesque U.S. Taxpayers	<b>Prosecuting Attorney</b> Vote for not more than 1
Joseph R. Biden Kamala D. Harris Democrat	Mary Anne Hering Working Class	James L. Rossiter Republican
Donald J. Trump Michael R. Pence Republican	Hali McEachern Working Class	<b>Sheriff</b> Vote for not more than 1
Jo Jorgensen Jeremy Cohen Libertarian	Tom Mair Green	Daniel S. Bean Republican
Don Blankenship William Mohr U.S. Taxpayers	Mark Bernstein Democrat	<b>Clerk</b> Vote for not more than 1
Howie Hawkins Angela Walker Green	Shauna Ryder Diggs Democrat	Sheryl Guy Republican
Rocky De La Fuente Darcy Richardson Natural Law	Sarah Hubbard Republican	<b>Treasurer</b> Vote for not more than 1
<b>Congressional</b>	Carl Meyers Republican	Sherry A. Comben Republican
<b>United States Senator</b> Vote for not more than 1	James L. Hudler Libertarian	<b>Register of Deeds</b> Vote for not more than 1
Gary Peters Democrat	Eric Larson Libertarian	Patty Niepoth Republican
John James Republican	Ronald E. Graeser U.S. Taxpayers	<b>Drain Commissioner</b> Vote for not more than 1
Valerie L. Willis U.S. Taxpayers	Crystal Van Sickle U.S. Taxpayers	Mark Stone Republican
Marcia Squier Green	Michael Mawlal Green	<b>Surveyor</b> Vote for not more than 1
Doug Dern Natural Law	Keith Butkovich Natural Law	Scott Papineau Republican
<b>Representative in Congress 1st District</b> Vote for not more than 1	<b>Trustee of Michigan State University</b> Vote for not more than 2	<b>County Commissioner 6th District</b> Vote for not more than 1
Dana Ferguson Democrat	Brian Mosallam Democrat	Brenda Ricksgrs Republican
Jack Bergman Republican	Rema Ella Vassar Democrat	<b>Township</b>
Ben Boren Libertarian	Pat O'Keefe Republican	<b>Supervisor</b> Vote for not more than 1
<b>Legislative</b>	Tonya Schultmaker Republican	Butch Peebles Republican
<b>Representative in State Legislature 105th District</b> Vote for not more than 1	Will Tyler White Libertarian	
Jonathan Burke Democrat	Janet M. Sanger U.S. Taxpayers	
Ken Borton Republican	John Paul Sanger U.S. Taxpayers	
	Brandon Hu Green	
	Robin Lea Laurain Green	
	Bridgette Abraham-Guzman Natural Law	

VOTE BOTH FRONT AND BACK OF BALLOT

Appendix A  
Ballots used for this test.



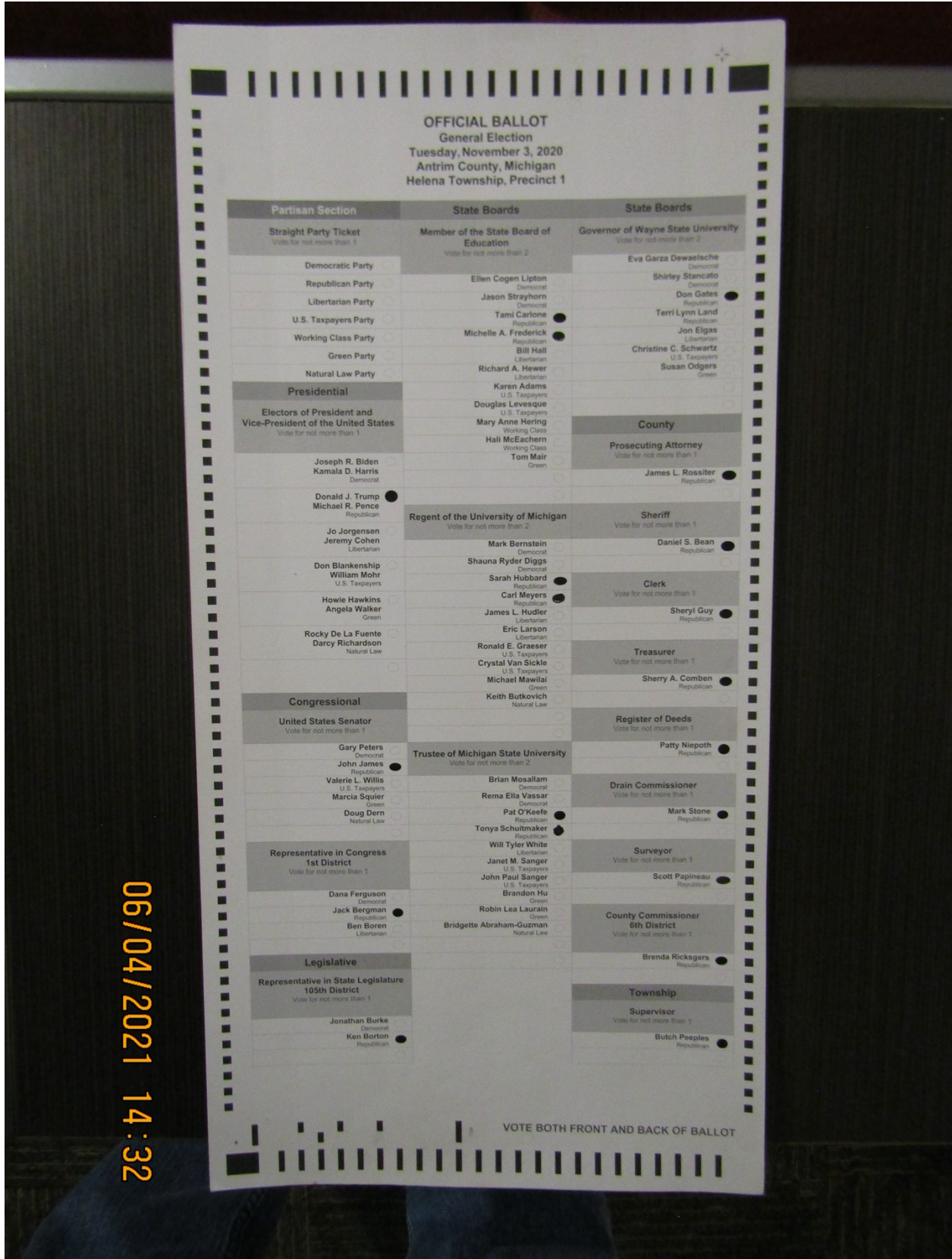
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General Election  
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Antrim County, Michigan  
Helena Township, Precinct 1

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Democratic Party	Ellen Cogen Lipton Democrat	Eva Garza Dewaelsche Democrat
Republican Party	Jason Strayhorn Democrat	Shirley Stancato Democrat
Libertarian Party	Tami Carlone Republican	Don Gates Republican
U.S. Taxpayers Party	Michelle A. Frederick Republican	Terri Lynn Land Republican
Working Class Party	Bill Hall Libertarian	Jon Elgas Libertarian
Green Party	Richard A. Hewer Libertarian	Christine C. Schwartz U.S. Taxpayers
Natural Law Party	Karen Adams U.S. Taxpayers	Susan Odgers Green
<b>Presidential</b>	<b>Regent of the University of Michigan</b> Vote for not more than 2	<b>County</b>
<b>Electors of President and Vice-President of the United States</b> Vote for not more than 1	Douglas Levesque U.S. Taxpayers	<b>Prosecuting Attorney</b> Vote for not more than 1
Joseph R. Biden Kamala D. Harris Democrat	Mary Anne Hering Working Class	James L. Rossiter Republican
Donald J. Trump Michael R. Pence Republican	Hali McEachern Working Class	<b>Sheriff</b> Vote for not more than 1
Jo Jorgensen Jeremy Cohen Libertarian	Tom Mair Green	Daniel S. Bean Republican
Don Blankenship William Mohr U.S. Taxpayers	Mark Bernstein Democrat	<b>Clerk</b> Vote for not more than 1
Howie Hawkins Angela Walker Green	Shauna Ryder Diggs Democrat	Sheryl Guy Republican
Rocky De La Fuente Darcy Richardson Natural Law	Sarah Hubbard Republican	<b>Treasurer</b> Vote for not more than 1
	Carl Meyers Republican	Sherry A. Comben Republican
	James L. Hudler Libertarian	<b>Register of Deeds</b> Vote for not more than 1
<b>Congressional</b>	Eric Larson Libertarian	Patty Niepoth Republican
<b>United States Senator</b> Vote for not more than 1	Ronald E. Graeser U.S. Taxpayers	<b>Drain Commissioner</b> Vote for not more than 1
Gary Peters Democrat	Crystal Van Sickle U.S. Taxpayers	Mark Stone Republican
John James Republican	Michael Mawilai Green	<b>Surveyor</b> Vote for not more than 1
Valerie L. Willis U.S. Taxpayers	Keith Butkovich Natural Law	Scott Papineau Republican
Marcia Squier Green	<b>Trustee of Michigan State University</b> Vote for not more than 2	<b>County Commissioner 6th District</b> Vote for not more than 1
Doug Dern Natural Law	Brian Mosallam Democrat	Brenda Rickagers Republican
	Rema Ella Vaasar Democrat	<b>Township</b>
<b>Representative in Congress 1st District</b> Vote for not more than 1	Pat O'Keefe Republican	<b>Supervisor</b> Vote for not more than 1
Dana Ferguson Democrat	Tonya Schultmaker Republican	Butch Peoples Republican
Jack Bergman Republican	Will Tyler White Libertarian	
Ben Boren Libertarian	Janet M. Sanger U.S. Taxpayers	
	John Paul Sanger U.S. Taxpayers	
	Brandon Hu Green	
	Robin Lea Laurain Green	
	Bridgette Abraham-Guzman Natural Law	
<b>Legislative</b>		
<b>Representative in State Legislature 185th District</b> Vote for not more than 1		
Jonathan Burke Democrat		
Ken Barton Republican		

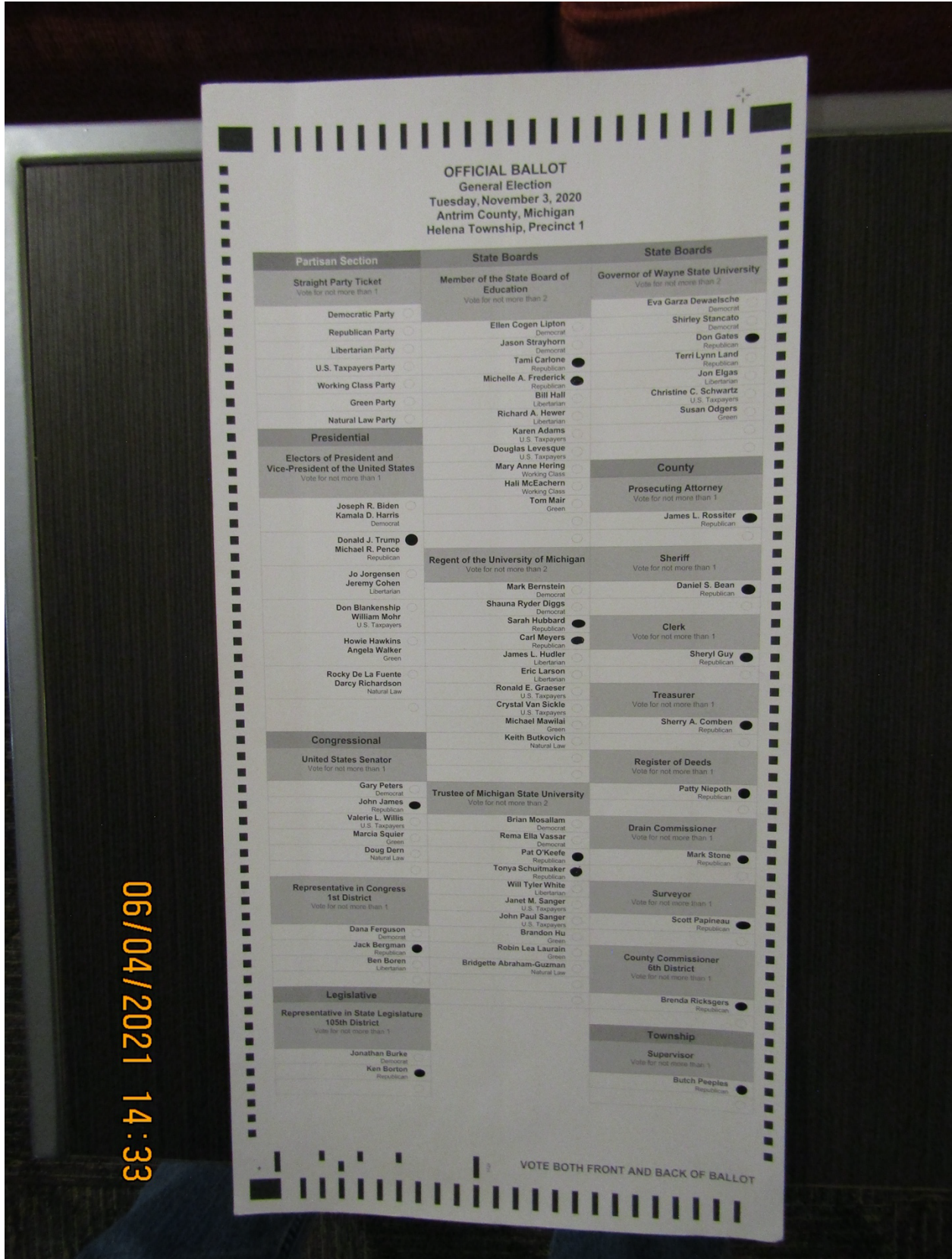
06/04/2021 14:32

VOTE BOTH FRONT AND BACK OF BALLOT

Appendix A  
Ballots used for this test.



06/04/2021 14:32

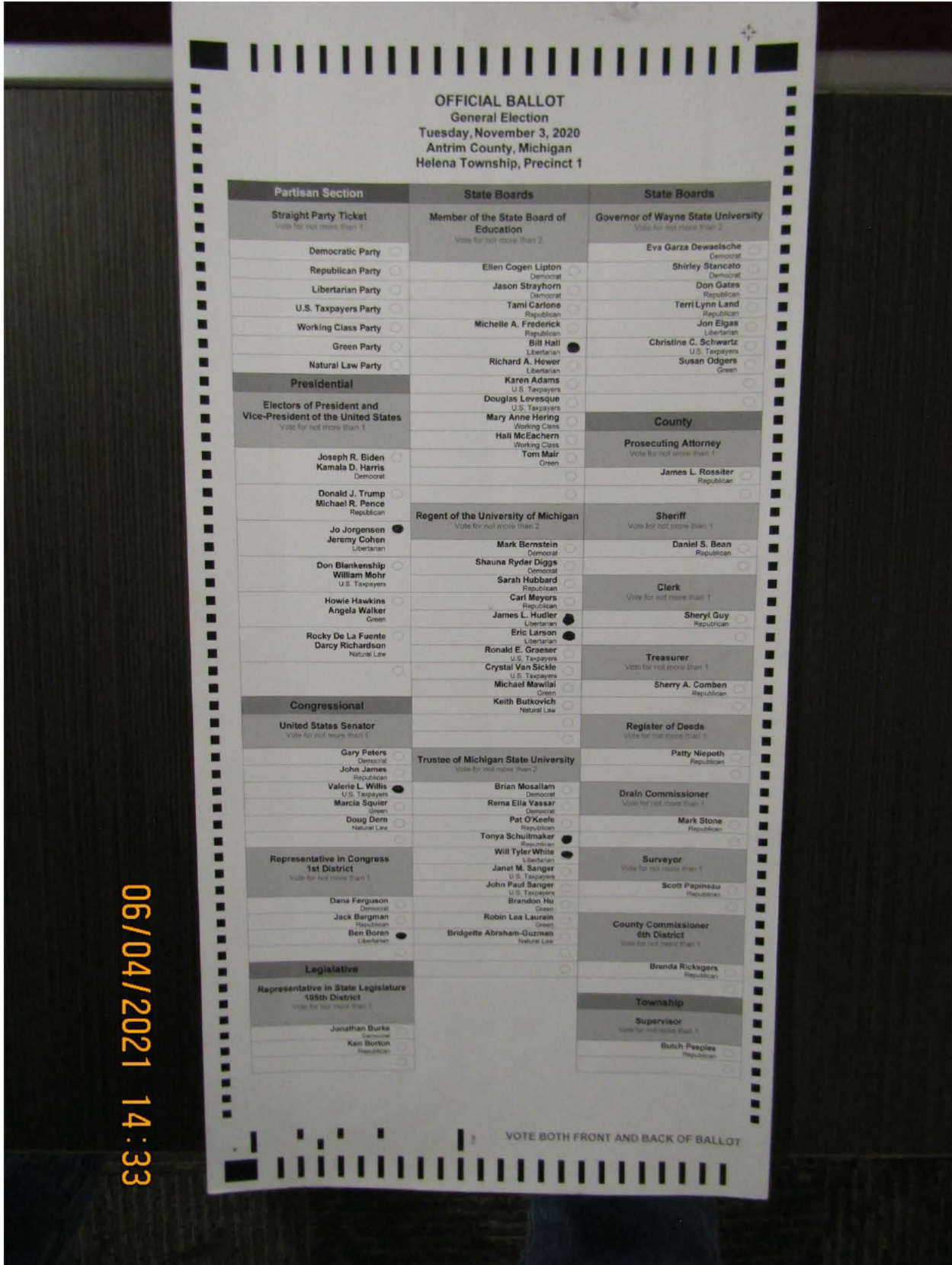


06/04/2021 14:33

**OFFICIAL BALLOT**  
General Election  
Tuesday, November 3, 2020  
Antrim County, Michigan  
Helena Township, Precinct 1

Partisan Section	State Boards	State Boards
<b>Straight Party Ticket</b> Vote for not more than 1	<b>Member of the State Board of Education</b> Vote for not more than 2	<b>Governor of Wayne State University</b> Vote for not more than 2
Democratic Party <input type="radio"/>	Ellen Cogen Lipton Democrat	Eva Garza Dewaeleche Democrat
Republican Party <input type="radio"/>	Jason Strayhorn Democrat	Shirley Stancato Democrat
Libertarian Party <input type="radio"/>	Tami Carlone Democrat	Don Gates Republican
U.S. Taxpayers Party <input type="radio"/>	Michelle A. Frederick Republican	Terri Lynn Land Republican
Working Class Party <input type="radio"/>	Bill Hall Libertarian	Jon Elgas Libertarian
Green Party <input type="radio"/>	Richard A. Hewer Libertarian	Christine C. Schwartz U.S. Taxpayers
Natural Law Party <input type="radio"/>	Karen Adams U.S. Taxpayers	Susan Odgers Green
<b>Presidential</b>	<b>Regent of the University of Michigan</b> Vote for not more than 2	<b>County</b>
<b>Electors of President and Vice-President of the United States</b> Vote for not more than 1	Douglas Levesque U.S. Taxpayers	<b>Prosecuting Attorney</b> Vote for not more than 1
Joseph R. Biden <input type="radio"/>	Mary Anne Hering Working Class	James L. Rossiter Republican
Kamala D. Harris <input type="radio"/>	Hali McCachern Working Class	
Donald J. Trump <input checked="" type="radio"/>	Tom Mair Green	
Michael R. Pence <input type="radio"/>		
Jo Jorgensen <input type="radio"/>		<b>Sheriff</b> Vote for not more than 1
Jeremy Cohen <input type="radio"/>	Mark Bernstein Democrat	Daniel S. Bean Republican
Don Blankenship <input type="radio"/>	Shauna Ryder Diggs Democrat	
William Mohr U.S. Taxpayers	Sarah Hubbard Republican	<b>Clerk</b> Vote for not more than 1
Howie Hawkins <input type="radio"/>	Carl Meyers Republican	Sheryl Guy Republican
Angela Walker Green	James L. Hudler Libertarian	
Rocky De La Fuente <input type="radio"/>	Eric Larson Libertarian	<b>Treasurer</b> Vote for not more than 1
Darcy Richardson Natural Law	Ronald E. Graeser U.S. Taxpayers	Sherry A. Comben Republican
	Crystal Van Sickle U.S. Taxpayers	
<b>Congressional</b>	Michael Mawilal Green	<b>Register of Deeds</b> Vote for not more than 1
<b>United States Senator</b> Vote for not more than 1	Keith Butkovich Natural Law	Patty Niepoth Republican
Gary Peters Democrat	<b>Trustee of Michigan State University</b> Vote for not more than 2	
John James Republican	Brian Mosallam Democrat	<b>Drain Commissioner</b> Vote for not more than 1
Valerie L. Willis U.S. Taxpayers	Rema Ella Vassar Democrat	Mark Stone Republican
Marcia Squier Green	Pat O'Keefe Republican	
Doug Dern Natural Law	Tonya Schuitmaker Republican	<b>Surveyor</b> Vote for not more than 1
	Will Tyler White Libertarian	Scott Papineau Republican
<b>Representative in Congress 1st District</b> Vote for not more than 1	Janet M. Sanger U.S. Taxpayers	
Dana Ferguson Democrat	John Paul Sanger U.S. Taxpayers	<b>County Commissioner 6th District</b> Vote for not more than 1
Jack Bergman Republican	Brandon Hu Green	Brenda Ricksger Republican
Ben Boren Libertarian	Robin Lea Laurain Green	
	Bridgette Abraham-Guzman Natural Law	<b>Township</b>
<b>Legislative</b>		<b>Supervisor</b> Vote for not more than 1
<b>Representative in State Legislature 105th District</b> Vote for not more than 1		Butch Peoples Republican
Jonathan Burka Democrat		
Ken Borton Republican		

VOTE BOTH FRONT AND BACK OF BALLOT



06/04/2021 14:33

**OFFICIAL BALLOT**  
General Election  
Tuesday, November 3, 2020  
Antrim County, Michigan  
Helena Township, Precinct 1

Partisan Section	State Boards	State Boards
<b>Straight Party Ticket</b> Vote for not more than 1	<b>Member of the State Board of Education</b> Vote for not more than 2	<b>Governor of Wayne State University</b> Vote for not more than 2
Democratic Party	Ellen Cogen Lipton Democrat	Eva Garza Dewaele Democrat
Republican Party	Jason Strayhorn Democrat	Shirley Stancato Democrat
Libertarian Party	Tami Carlone Republican	Don Gates Republican
U.S. Taxpayers Party	Michelle A. Frederick Republican	Terri Lynn Land Republican
Working Class Party	Bill Hall Libertarian	Jon Elgas Libertarian
Green Party	Richard A. Hower Libertarian	Christine C. Schwartz U.S. Taxpayers
Natural Law Party	Karen Adams U.S. Taxpayers	Susan Odgers Green
<b>Presidential</b>	Douglas Levesque U.S. Taxpayers	
<b>Electors of President and Vice-President of the United States</b> Vote for not more than 1	Mary Anne Hering Working Class	<b>County</b>
Joseph R. Biden Kamala D. Harris Democrat	Hali McEachern Working Class	<b>Prosecuting Attorney</b> Vote for not more than 1
Donald J. Trump Michael R. Pence Republican	Tom Malr Green	James L. Rossiter Republican
Jo Jorgensen Jeremy Cohen Libertarian	<b>Regent of the University of Michigan</b> Vote for not more than 2	<b>Sheriff</b> Vote for not more than 1
Don Blankenship William Mohr U.S. Taxpayers	Mark Bernstein Democrat	Daniel S. Bean Republican
Howie Hawkins Angela Walker Green	Shauna Ryder Diggs Democrat	<b>Clerk</b> Vote for not more than 1
Rocky De La Fuente Darcy Richardson Natural Law	Sarah Hubbard Republican	Sheryl Guy Republican
	Carl Meyers Republican	<b>Treasurer</b> Vote for not more than 1
	James L. Hudler Libertarian	Sherry A. Comben Republican
	Eric Larson Libertarian	<b>Register of Deeds</b> Vote for not more than 1
	Ronald E. Graeser U.S. Taxpayers	Patty Niepoth Republican
	Crystal Van Sickle U.S. Taxpayers	<b>Drain Commissioner</b> Vote for not more than 1
	Michael Maxwell Green	Mark Stone Republican
	Keith Butkovich Natural Law	<b>Surveyor</b> Vote for not more than 1
<b>Congressional</b>		Scott Papineau Republican
<b>United States Senator</b> Vote for not more than 1	<b>Trustee of Michigan State University</b> Vote for not more than 2	<b>County Commissioner 6th District</b> Vote for not more than 1
Gary Peters Democrat	Brian Mosallam Democrat	Brenda Ricksgers Republican
John James Republican	Rema Elia Vassar Democrat	<b>Township</b>
Valerie L. Willis U.S. Taxpayers	Pat O'Keefe Republican	<b>Supervisor</b> Vote for not more than 1
Marcia Squier Green	Tonya Schultmaker Republican	Butch Peoples Republican
Doug Dern Natural Law	Will Tyler White Libertarian	
	Janet M. Sanger U.S. Taxpayers	
<b>Representative in Congress 1st District</b> Vote for not more than 1	John Paul Sanger U.S. Taxpayers	
Dana Ferguson Democrat	Brandon Hu Green	
Jack Bergman Republican	Robin Lea Laurain Green	
Ben Boren Libertarian	Bridgette Abraham-Guzman Natural Law	
<b>Legislative</b>		
<b>Representative in State Legislature 189th District</b> Vote for not more than 1		
Jonathan Burke Democrat		
Ken Borton Republican		

VOTE BOTH FRONT AND BACK OF BALLOT